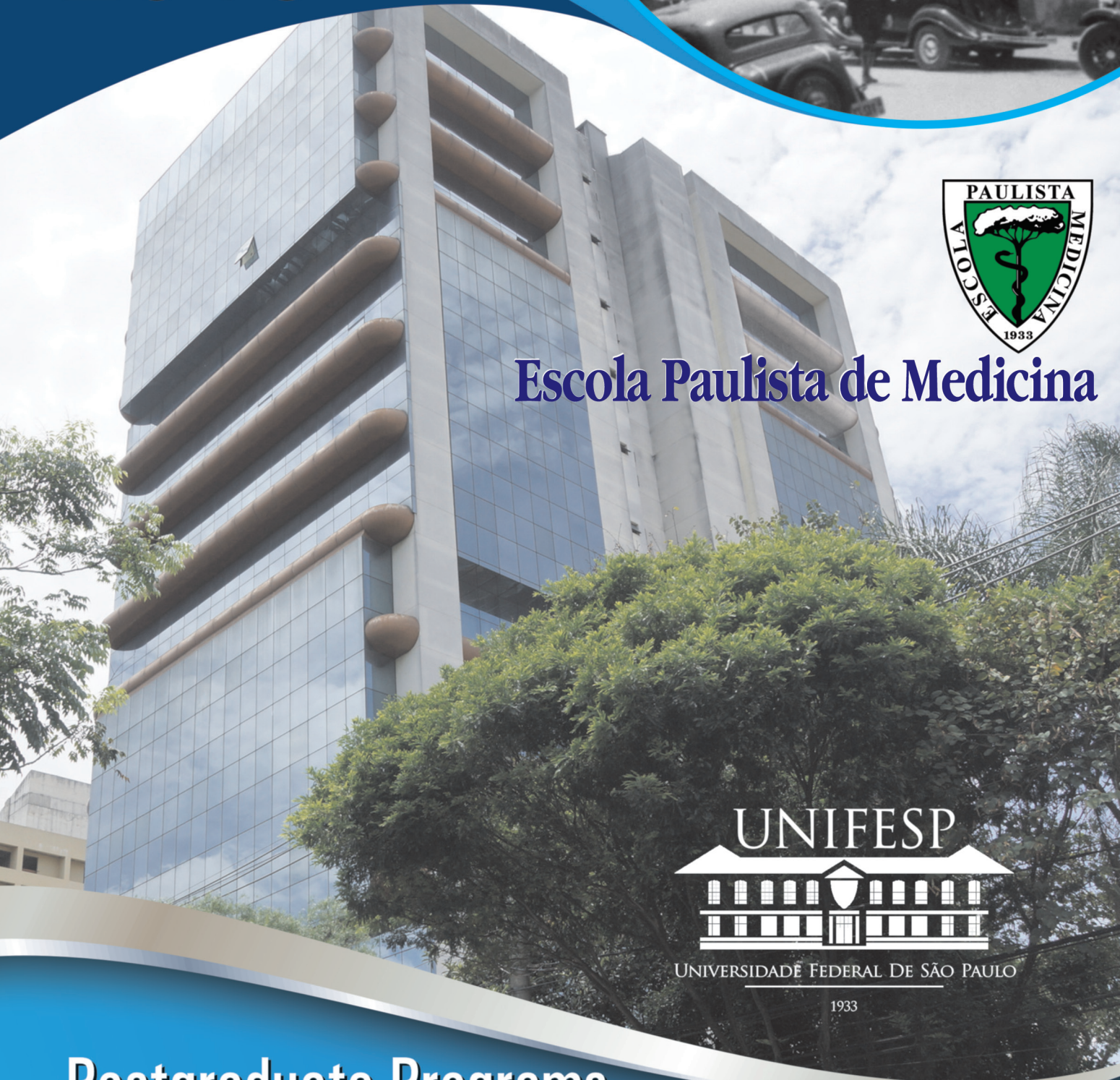


2016



Escola Paulista de Medicina



Postgraduate Programs Research Report

Postgraduate Program
Research Report
2016

Escola Paulista de Medicina
Universidade Federal de São Paulo

Postgraduate Program
Research Report
2016

Coordination: Luis Eduardo Coelho Andrade e Ruy Ribeiro de Campos Junior

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ESCOLA PAULISTA DE MEDICINA – UNIFESP
POSTGRADUATE PROGRAM
RESEARCH REPORT
2016

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PREFACE

Escola Paulista de Medicina (EPM), São Paulo, Brazil, was officially recognized as a Medical School on May 31, 1938, and the federalization of EPM occurred after the Brazilian Presidential Decree of January 21, 1956. EPM was born based on the pioneering spirit of a group of young medical doctors, and has maintained this innovative spirit since its inauguration in 1933.

Universidade Federal de São Paulo (UNIFESP), created on December 15, 1994, resulted from the expansion of EPM into a comprehensive University conscious of its responsibility and commitment to science advancement and to the development of the community of which it is part.

EPM's mission is to develop, at the level of excellence, the interrelated activities of teaching, research and medical assistance. At present, EPM has 35 postgraduate programs, more than 3 thousand students and 700 supervisors in various areas related to Medicine and Health (basic sciences, clinical sciences and surgical sciences) with the greatest commitment to advancement in scientific knowledge and excellence in human resource training. Several of these postgraduate programs are rated the maximum excellence score by the Brazilian Agency CAPES dedicated to National Higher Studies and Education.

Along several decades, our postgraduate programs have trained young MD and PhD fellows who now occupy pivotal academic positions in several universities across the country and abroad. This volume proudly offers a synoptic view of the structure, research focus, scientific performance and contact directions of the postgraduate programs in our institution.

Luis Eduardo Coelho Andrade

Ruy Ribeiro de Campos Junior

Chamber of Postgraduate Studies
Escola Paulista de Medicina

Postgraduate Programs

Biological Sciences (Molecular Biology)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/biologiamolecular>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1410

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grade (Grade A until the year 2000, and Grade 7, the highest grade under the new evaluation system, since 2001). Currently the majority of supervisors are professors in the Unifesp Departments of Biochemistry and Biophysics, but professors and scientists from other institutions in the state, as selected by the Committee for Postgraduate Studies, are also supervisors in the Program.

The Program nurtures the development of scientific thinking, emphasizing experimental work, data discussion in groups and presentation of scientific papers at lab meetings. In addition, postgraduate students in the Program are given the opportunity to train and supervise undergraduate students in the labs. The Program offers postgraduate level courses in biochemistry, biophysics, and cellular and molecular biology to give students a broad foundation and prepare them for teaching positions as well as research. From the beginning the Program's main goal has been to prepare postgraduate students for the job market, including universities, research institutes and industry.

Historical background

The Postgraduate Program in Molecular Biology at the Universidade Federal de São Paulo (Unifesp) was founded in 1970, and was the first approved Postgraduate Program in our university. It is also one of the first postgraduate programs in São Paulo state to be officially recognized by the Ministry of Education. At that time several biomedical science departments were represented in the Program, including Biochemistry, Biophysics, Pharmacology, Physiology, Microbiology, Immunology, Parasitology, and Anatomy. Scientists from the Botanical Institute of São Paulo were also in the Program. As research developed in all these departments, with increasing scientific quality and increasing numbers of researchers, new postgraduate programs were created. Since the evaluation system was established by Capes, the Molecular Biology Postgraduate Program has received the highest

Research focus

The Program focuses on four areas: Biophysics, Biochemistry, Cellular and Molecular Biology, and Neuroscience.

The main research interests are: 1) **Structural biology**; 2) **Biochemistry of pathological states**; 3) **Structure, activity and synthesis of peptides and proteins**; 4) **Glycobiology**; 5) **Immunochemistry of glycoconjugates**; 6) **Internalization of glycoconjugates**; 7) **Neurobiology**; 8) **Proteases and proteases inhibitors**.

Selected publications

Stilhano RS et al (2015). Gene and cell therapy for muscle regeneration. *Current Reviews in Musculoskeletal Medicine*, 8:182-7.

Vicente CM et al (2015). Sulf2 overexpression positively regulates tumorigenicity of human prostate cancer cells. *Journal of Experimental & Clinical Cancer Research* (Online), 34:25.

Oliveira LCG et al (2014). Analysis of peptidase activities of a cathepsin b-like (tcocbc1) from trypanosoma congolense. *Biochimica et Biophysica Acta. Proteins and Proteomics*, 1844:1260-7.

Pedro AN et al (2014). Nitric oxide-induced murine hematopoietic stem cell fate involves multiple signaling proteins, gene expression, and redox modulation. *Stem Cells*, 32:2949-60.

Lima MA et al (2013). Ultra-low-molecular-weight heparins: precise structural features impacting specific anticoagulant activities. *Thrombosis and Haemostasis*, 109:471-8.

Books and chapters

Riske KA (2015). Advances in planar lipid bilayers and liposomes.

Glezer I et al (2015). CD36, CD44, CD83 expression and putative functions in neural tissues.

Lee KS (2015). Young perspectives for old diseases.

Justo GZ et al (2013). From combinatorial display techniques to microarray technology: new approaches to the development and toxicological profiling of targeted nanomedicines.

Grants

Fapesp, CNPQ, Capes, Finep.

PhD Thesis (2015)

Viviane Carlin Cordaro. Functional analysis of cancer / Testicles antigens in cell lines from head and neck. Supervisor: André Luiz Vettore de Oliveira.

Roberta Sessa Stilhano. Angiotensin receptor-mediated skeletal muscle fibrosis and treatment of muscle injured by PRP and gene therapy. Supervisor: Sang Won Han.

Gabriel Lopes Argello Cunha. Hypoxia induced by adhesion to plastic used in cell coculture model. Supervisor: Helena Bonciani Nader.

Tais Adelita Morais de Almeida. CXCL12 (5-67) induced apoptosis in adult neural precursors. Supervisor: Marimelia Porcionatto.

Diego Magno Assis. Biochemical and pharmacological effects of phosphorylation of components of the calicreins-cinins system. Supervisor: Maria Aparecida Juliano.

Roberta Eller Borges. Study of nitric oxide on activation of GTPase RAC-1 in endothelial melanoma murine cells. Supervisor: Hugo Pequeno Monteiro.

Heloisa Rosa. Participation of protein tyrosin kinase SRC and nitric oxide in cell signaling stimulated by estrogen in the MCF-7 line obtained from human breast tumor. Supervisor: José Eduardo Krieger.

Pollyana Maria Saud Melo. Study of internalization and processing of plasma proteins by plasmodium proteases and evaluation of the biological activity of generated peptides. Supervisor: Adriana Karaoglanovic Carmona.

Leonardo Thiago Duarte Barreto Nobre. Mode of action of a sunned ramnana in endothelial and muscle cells: potential use in the prevention of endothelial dysfunction. Supervisor: Helena Bonciani Nader.

Marcelo Yudi Icimoto. Redimex modulation of thimet oligopeptidase. Supervisor: Vitor Marcelo Silveira Bueno Brandão de Oliveira.

Marcella Braga da Costa Reis. CXCL12 secrecy study by astrotics and mesenquimial stem cells. Supervisor: Marimelia Porcionatto.

Lilian Caroline Goncalves de Oliveira. Study of B-similar catepsins derived from trypanosoma congolense with the use of fluorescent synthetic combinatorial libraries. Supervisor: Luiz Juliano Neto.

MSc Thesis (2015)

Camila Ramalho Bonturi. Action of protease inhibitors, ECTI and CRESTBL, in cerebral cancer lines (glioblastoma multiforme). Supervisor: Maria Luiza Vilela Oliva.

Caio Andreeta Figueiredo. Characterization of the angiogenic potential of isolated primary cells of pulmonary murine microvasculature. Supervisor: Adriana Karaoglanovic Carmona.

Amanda Costa Carita. Solubilization of thermal liquid mixtures of the raft type by non-ionic detergents. Supervisor: Karin do Amaral Riske.

Reni Luci Bozato. Effect of protease ECTI inhibitor in tumor cells of prostate cancer. Supervisor: Maria Luiza Vilela Oliva.

Tabata de Almeida da Silva. Characterization of anti-antiidiotypic monoclonal antibody 5.G8 ligat-

ing GD3. Supervisor: Jane Zveiter de Moraes.

Daianne Santos Paranhos de Souza. Investigation of the influence of zinc in the participation of human cyninogen of high molecular mass in cellular events. Supervisor: Guacyara da Motta.

Fernando Henrique Massinhani. Induction of differentiation leads to change in RUNX's subcellular location in neural cells. Supervisor: Marimelia Porcionatto).

Marina Rodrigues e Silva. Cloning, expression and purification of recombinant BMP-2 as a tool to evaluate the role of the B1 binding receptor in the osteoblastic differentiation induced by BMP-2. Supervisor: João Bosco Pesquero.

Rafael Ferraz Conceição. Impact of protein participation in the effects of caloric restriction on *C. elegans*. Supervisor: Marcelo Alves da Silva Mori.

Marcelo Alberti Paiva da Silva. Influence of PRPC on the autophagia and ER stress induced during the differentiation of N2 cells in dopaminergic neurons. Supervisor: Kil Sun Lee.

Maria Cecilia Zorel Meneghetti. First description of heparan sulfate 3-O sulfotransferase in primordial organisms: cloning, expression and activity. Supervisor: Helena Bonciani Nader.

Biomembranes, Transporters and Signaling – 08.006 Biohysical aspects of the interaction of hemocidine HB (40-61A) with mechanical membrane models. Moreira-Silva I, Domingues TM, Riske KA, Machado-Lunkes A, Machini MT, Cuccovia IM, Perez KR – Biofísica – Unifesp Bioquímica – USP.

Financial support

Fapesp, CNPQ, Capes, Finep.

Prizes

VII Octavio Frias de Oliveira Award, category Innovation in Oncology, Dr. Ana Marisa Chudzinski-Tavassi.

70th Congress of the Brazilian Societies of Dermatology. From the trunk cell to the keratinocyte: a new approach for the skin biology study. Cruz-Silva, I., Nunes, V.A., Gozzo, A.J., Praxedes-Garcia, P., Araujo, M.S.

Fesbe (Federation of Brazilian Societies of Experimental Biology) 2015.

Effect of proteinase inhibitor of plant origin crataeva tapia bark lectin in an experimental model of chronic allergic pulmonary inflammation. Bortolozzo ASS, Rodrigues APD, Arantes-Costa FM, Saraiva-Romanholo BM, Brito MV, Righetti RF, Prado CM, Leick EA, Oliva MLV, Martins MA, Tibério IFLC.

Effect of a recombinant inhibitor RBBCI (Bauhinia Bauhinioides Cruzain/CRUZIPAIN inhibitor) and its association with heparin in a venous thrombosis model in rats. Oliveira C, Vioto MV, Ottaiano TF, Lima MA, Miranda A, Sampaio MU, Maffei FHA, Oliva MLV.

Home page

<http://www.ppg.unifesp.br/farmacologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1411

Coordinator

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Historical background

The Postgraduate Program in Pharmacology was founded 45 years ago. The aim of the Program is to prepare students to be highly qualified candidates for the professional practice of teaching and research in Pharmacology, Physiology and related fields. The Program focuses on quality and excellence of teaching and scientific and technological research, and on the continuous search for new knowledge. It is flexible and is thereby able to prepare students for the diversity of careers in the field of Biological Sciences. The Program also promotes the careful dissemination of results produced by the scientific community. Such actions have contributed to the development of high-level scientific research in this country, and collaboration with international centers of excellence.

Research focus

Experimental endocrinology: biology and molecular pharmacology of the male reproductive tract and of the mechanism of hormone action, especially as related to male cancer and fertility;

Natural products: pharmacology of active compounds isolated from medicinal plants;

Drug mode of action: pharmacology of smooth musculature, neurotransmission, calcium signaling and cell death;

Physiology: neurophysiology, physiology and pathophysiology of renal and cardiovascular systems, and the relationship between inflammation and dietary fats;

Neurotransmitters: neuropsychopharmacology (Schizophrenia, Parkinson's disease, Alzheimer's disease, anxiety) and learning/memory.

Selected publications

Ribeiro CM et al. Dynamic changes in the spatio-temporal expression of the α -defensin SPAG11C in the developing rat epididymis and its regulation by androgens. *Mol Cell Endocrinol*, 404:141-150, 2015.

Almeida V et al. Effects of cannabinoid and vanilloid drugs on positive and negative-like symptoms on an animal model of schizophrenia: the SHR strain. *Schizophr Res*. 153(1-3):150-9, 2014.

Fernandes HA et al. Inhibitory effects of modafinil on emotional memory in mice. *Neuropharmacology*. 64:365-70, 2013.

Lincevicius GS et al. Aldosterone Contributes to Sympathoexcitation in Renovascular Hypertension. *Am J Hypertens*. 1:1-8, 2015.

Morais IC et al. L-Aminoacid Oxidase from *Bothrops leucurus* Venom Induces Nephrotoxicity via Apoptosis and Necrosis. *PLoS One*. 10(7):e0132569, 2015.

Pontes RB et al. Renal nerve stimulation leads to the activation of the Na⁺/H⁺ exchanger isoform 3

via angiotensin II type I receptor. *Am J Physiol Renal Physiol.* 308(8):F848-56, 2015.

Pisolato R et al. Expression and regulation of the estrogen receptors in PC-3 human prostate cancer cells. *Steroids.* 107:74-86, 2016.

Bassi M et al. Facilitation of breathing by leptin effects in the central nervous system. *J Physiol.*, 594(6):1617-25, 2015.

Camara H et al. Would calcium or potassium channels be responsible for cardiac arrest produced by adenosine and ATP in the right atria of Wistar rats? *Eur J Pharmacol.* 5;768:199-206, 2015.

Godinho RO et al. New perspectives in signaling mediated by receptors coupled to stimulatory G protein: the emerging significance of cAMP e ux and extracellular cAMP-adenosine pathway. *Front Pharmacol.* 6:58m 2015.

Parames SF et al. Altered acetylcholine release in the hippocampus of dystrophin-deficient mice. *Neuroscience.* 269:173-83, 2014.

Books and chapters

Monteiro AC et al. Signaling Pathways Altered During the Metastatic Progression of Melanoma. In: *Melanoma*, ed. Murph M, Tech, ISBN 978-953-51-4133-4, 2015.

Peres G et al. Matrix metalloproteases in Streptozotocin model of Diabetes Mellitus. In: *Streptozotocin: Uses, Mechanisms of Action and Side Effects*, ed. Gauthier EL, Nova Science, 5: 81-98 ISBN 978-1-63117-255-7 2014, 2014.

Menani JV et al. Preoptic-Periventricular Integrative Mechanisms Involved in Behavior, Fluid-Electrolyte Balance, and Pressor Responses In: *Neurobiology of Body Fluid Homeostasis - Transduction and Integration*. Ed: Luca-Jr LA et al, CRC Press - *Frontiers in Neuroscience*, 2014, v.1, p. 67-82. ISBN-13: 978-1-4665-0693-0.

Lapa AJ et al. Princípios gerais de farmacocinética e farmacodinâmica nos ciclos da vida. In: *Atualização Terapêutica de Prado, Ramos e Valle: diagnóstico e tratamento – 2014/15*. Ed: Borges DR. Editora Artes Médicas, 2014, v. 1, p. 33-38.

Grants

University Joseph Fourier of Grenoble – Dr. Mirian Hayashi.

NIH Grant MH084018, MH069853 – Dr. Mirian Hayashi.

Fogarty International Center/NIH – Dr. Maria Christina Avellar.

Lalor Foundation (USA) – Dr. Maria Christina W. Avellar.

American Society of Andrology (USA) – Dr. Maria Christina W. Avellar.

International Society of Andrology (Germany) – Dra. Maria Christina W. Avellar.

Andrologie, French Society of Andrology – Dr. Maria Christina W. Avellar.

NIH Grant NS40932 South Caroline University – Dr. Soraya Smaili.

Program of Cooperation Brazil-Swiss – Dr. Soraya Soubhi Smaili.

University of Rome Tor Vergata – Dr. Soraya Smaili.

Dr. Peter Anthony Jones from Department of Urology, Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, CA project in cooperation with Dr. Miriam Galvonas Jasiulionis.

Dr. Ralph Green, Department of Pathology, University of California Davis, CA. Project in cooperation with Miriam Galvonas Jasiulionis.

Grants from NIH MH084018, MH069853; Stanley; NARSAD; CHDI (AS); HighQ; S-R foundation and Pfizer Neuroscience, in collaboration with Dr Nicholas Brandon [Head of Psychiatry of Pfizer Neuroscience] and Drs Akira Sawa and Atsushi Kamiya [Neuroscience Department of Psychiatry, Johns Hopkins University School of Medicine. Cooperation with Dr. Mirian Akemi Furue Hayashi.

The Rockefeller University, NY, USA and Dr. Zhaoyi Wang, Creighton University Medical School, Omaha, USA. Cooperation with Dr. Catarina Porto.

Universidad Autonoma de Madrid (UAM) – Spain. Project in Cooperation with Dr. Afonso Caricati.

University of Melbourne, Australia – Prof. Robin McAllen and Clive May, project in Cooperation with Dr. Ruy Campos and Cassia Bergamaschi.

University of Bristol – Prof. Julian Patton, project in cooperation with Dr. Ruy Campos.

Università degli Studi di Milano, Italia, Prof. Nicola Montano – Project in cooperation with Dr. Cassia Bergamaschi.

University of Rome – Dr. Mauro Piacentini, Project in cooperation with Dr. Soraya Smaili.

University College, London, Dr. Sandip Patel, project in cooperation with Dr. Soraya Smaili.

University of South Carolina, USA, Dr. Yi-Te Hsu. project in cooperation with Dr. Soraya Smaili.

Department of Comparative Biosciences, University of Illinois Urbana-Champaign, Project in cooperation with Dr. Maria de Fátima Lázari.

Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, CA, Department of Pathology, University of California Davis, CA e Children's Memorial Research Center and Northwestern University, Chicago, Illinois, project in cooperation with Dr. Miriam Jasiulionis.

University of Chicago – Project in cooperation with Dr. Vanessa Abilio.

PhD Thesis (2015)

Aline Goncalves Nascimento. Signaling pathways, activated by FSH and relaxin, involved in the control of proliferation and differentiation of Sertoli cells. Supervisor: Maria de Fatima Magalhães Lazari.

André Luiz de Moura. Adrenergic Activity Changes Induced by Stress in Cardiac Tissue from Beta-2 Adrenoceptor Knockout Mice. Supervisor: Regina Célia Spadari.

Carolina Maria Alves Bastos. Evaluation of cytoprotective ability of the new analogues of tacrine established in astrocyte lineage and PC-12 cells. Supervisor: Aron Jurkiewicz.

Daniela Ortolani. Impact of hypercaloric diet intake on behavior, endocrine and cardiac responses in stress. Supervisor: Regina Célia Spadari.

Edilson Dantas da Silva Junior. Clonidine and its effects on sperm parameters and on testicular capsule and distal cauda epididymidis contraction. Supervisor: Aron Jurkiewicz.

Fabiana Marcelino Meliso. Role of SIRT1 in establishing aberrant epigenetic marks associated with malignant transformation of melanocytes. Supervisor: Miriam Galvonas Jasiulionis.

Fernanda Patti Nakamoto. Effect of intermittent hypoxic training followed by intermittent hypoxic exposure on aerobic capacity of long distance runners. Supervisor: Antonio Carlos da Silva.

Francisco Sandro Menezes Rodrigues. Effects of orlistat on the biochemical and cardiovascular parameters of normotensive and hypertensive rats subjected to cardiac ischemia and reperfusion. Supervisor: Afonso Caricati Neto.

Gustavo José da Silva Pereira. NAADP: A New Second Messenger Ca²⁺ Mobilizator and Autophagy Regulator. Supervisor: Soraya Soubhi Smaili.

Mariana Toricelli Pinto. Determining signaling pathways activated by TIMP1 along melanoma genesis. Supervisor: Miriam Galvonas Jasiulionis.

Nubia Mantovan Fardin. Effects of treatment with digitoxin on sympathetic vasomotor activity in experimental congestive heart failure. Supervisor: Ruy Ribeiro de Campos Junior.

Raphael Wuo da Silva. Experimental Characterization of Immediate Behavioral Sensitization induced by Modafinil in Mice. Supervisor: Beatriz Monteiro Longo.

Thales Biffe Alves. Evaluation of cardiovascular and sympathetic responses promoted by moxonidine injection into the commissural nucleus of the solitary tract. Supervisor: Eduardo Colombari.

Valeria de Almeida. Role of TRPV1 receptor on positive, negative and, cognitive-like symptoms on an animal model of schizophrenia: the SHR strain (Spontaneously Hypertensive Rat). Supervisor: Vanessa Costhek Abilio.

MSc Thesis (2015)

Ana Paola Giometti Lombardi. Estrogen receptor (ESR2) and regulation of expression and function of beta-catenin in cell prostate cancer androgen independent of PC-3. Supervisor: Catarina Segreti Porto.

Caroline Dal Mas. Study of antimicrobial activity of venom toxins. Supervisor: Mirian Akemi Furuie Hayashi.

Cauê Santos Lima. Evaluation of modulating properties of cafestol on the process of cell death in HL60 cells. Supervisor: Claudia Bincoletto Trindade.

Douglas Albuquerque Gouvea. Characterization of hedonic behavior in an animal model of schizophrenia: The SHR strain (Spontaneously Hypertensive Rat. Supervisor: Vanessa Costhek Abilio.

Fernanda Fiel Peres. Analysis of the possible preventive effect of cannabidiol in an animal model of schizophrenia: The immune activation by the administration of poly I: C. Supervisor: Vanessa Coshek Abílio.

Joana Darc Campeiro. Pharmacological studies of oral crotalin, an isolated toxin rattlesnake venom *Crotalus durissus terrificus*. Mirian Supervisor: Akemi Furuie Hayashi.

Joyce Regina Santos Raimundo. Autonomic and renal alterations in male offspring of sleep restricted

rats during last part of pregnancy. Supervisor: Guiomar Nascimento Gomes.

Rosa Odete Gomes Antunes. Enzyme phenotype influence of converting angiotensin I (Eca – E.C. 3.4.15.1) on vascular reactivity. Maria Supervisor: Teresa Riggio de Lima Landman.

International cooperations

University Joseph Fourier of Grenoble – Dr. Mirian Hayashi.

NIH Grant NS40932 South Caroline University – Dr. Soraya Smaili.

Program of Cooperation Brazil-Swiss – Dr. Soraya Soubhi Smaili.

University of Rome Tor Vergata – Dr. Soraya Smaili.

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Grants from NIH MH084018, MH069853; Stanley; NARSAD; CHDI (AS); HighQ; S-R foundation and Pfizer Neuroscience, with colaberation of Dr Nicholas Brandon [Head of Psychiatry of Pfizer Neuroscience] and Drs Akira Sawa and Atsushi Kamiya [Neuroscience Department of Psychiatry, Johns Hopkins University – School of Medicine]. Cooperation with Dr. Mirian Akemi Furue Hayashi.

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Universidad Autonoma de Madrid (UAM) – Spain. Instituto I+D del Medicamento Teófilo Hernando, Spain. Project in Cooperation with Dr. Antonio Garcia, Dr. Afonso Caricati and Dr. Aron Jurkiewicz.

University of Melbourne, Australia – Prof. Robin McAllen and Clive May, project in Cooperation with Dr. Ruy Campos and Cassia Bergamaschi.

University of Bristol – Prof. Julian Patton, project in cooperation with Dr. Ruy Campos.

Università degli Stufi di Milano, Italia, Prof. Nicola Montano – Project in cooperation with Dr. Cassia Bergamaschi.

University of Rome – Dr. Mauro Piacentini, Proj-

ect in cooperation with Dr Soraya Smaili.

University College, Londres, Dr. Sandip Patel, project in cooperation with Dr. Soraya Smaili.

University of South Carolina, USA, Dr. Yi-Te Hsu. project in cooperation with Dr. Soraya Smaili.

Department of Comparative Biosciences, University of Illinois Urbana-Champaign, Project in cooperation with Dr. Maria de Fátima Lázari.

Norris Comprehensive Cancer Center, University of Southern California, Los Angeles, CA, Department of Pathology, University of California Davis, CA e Children's Memorial Research Center and Northwestern University, Chicago, Illinois, project in cooperation with Dr. Miriam Jasiulionis.

Prizes

National:

Capes Thesis Prize 2011 – Title: Mechanisms of sympathetic vasomotor activity generation in renovascular hypertension in Wistar rats.

Student : Elizabeth Barbosa de Oliveira Sales.

Supervisor: Ruy Ribeiro de Campos Junior.

International:

International Society of Andrology Trainee Merit Award, V Workshop on Male Reproductive Biology, 2015, São Paulo, SP, Brazil, Post doctoral student: Camilla M. Ribeiro. Supervisor: Maria Christina W. Avellar.

APS Travel Award – Cardiovascular, Renal and Metabolic Diseases: Physiology and Gender, 2015, Annapolis, Maryland, USA, Master's degree student: Rogerio Arger. Supervisor: Guiomar N. Gomes.

Best Poster Presentation in Basic Research International Congress of the International Society for Autonomic Neuroscience, 2015, Stresa, Italy. PhD student: Caroline Gusson. Supervisor: Ruy Ribeiro de Campos Jr.

Highlight of the journal cover “Experimental Biology” as chosen by the Editor, Exp Physiol. 2014 Mar;99(3):571-85. PhD student: Takakura AC. Supervisor: Eduardo Colombari.

Patents

The Program has registered 18 patents:

01. Bincoletto, C. Active Patent: Document Number US Patent 7432403 Issued Date October 7, 2008.

02. Bincoletto, C. Active Patent: Document Number Brazil Patent 2004019924 Issued Date November 3, 2004.

03. Bincoletto, C. Active Patent: Document Number US Patent 20060106100 Issued Date August 22, 2003.

04. Bincoletto, C. Active Patent: Document Number US Patent 7935728 Issued Date July 13, 2007.

05. Bincoletto, C. Active Patent: Document Number China Patent 03824724 Issued Date August 22, 2003.

06. Bincoletto, C. Active Patent: Document Number Brazil Patent 1534257 Issued Date August 22, 2003.

07. Bincoletto, C. Active Patent: Document Number Canada Patent 2496681 Issued Date August 22, 2003.

08. Bincoletto, C. Active Patent: Document Number Swiss wo2004019924 Patent Issued Date August 22, 2003.

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14. Hayashi MAF. Priority: PI0502668-7 Family of Patents – Country of application Brazil PI0502668-7 PCT PCT/BR2006/000309.

15. Hayashi MAF. Priority: PI0501037-3 Family of Patents – Country of application Brazil PI0501037-3 PCT PCT/BR2006/000052 Europa 06721611.9 EUA 11/902,064.

16. Hayashi MAF. Priority: US 61/022,749 Family of Patents – Country of application EUA US 61/022,749.

17. Hayashi MAF. Priority: PI100105043 em 10/11/2010 Family of Patents – Country of application Brazil PI100105043.

18. Roman-Campos D. Patente number: 61/767,768, 21/02/2013, EUA.

Financial support

Fapesp, Capes, CNPq, NIH, Capes-PNPD, Fapesp-MCT/CNPq-Pronex, CNPq-INCT, Academic Excellence Program (Proex) – Capes.

Facilities

Please see at: <http://www.posgrad.epm.br/bio-mol/multiequipa>.

Other information

The Postgraduate Program in Pharmacology has produced more than 600 Masters and PhD theses since its foundation in 1970. Currently the Program has approximately 100 Masters and PhD students, as well as undergraduates, visiting professors and 30 Post-Doctoral fellows.

Microbiology and Immunology

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/microbiologiaeimmunologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1412

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Historical background

The Postgraduate Program in Microbiology and Immunology started in 1971 and since then has consistently achieved the highest rating (Capes 7.0) among Brazilian postgraduate programs. The program has produced more than 800 Master and Ph.D. theses. Many of our former students are now productive independent researchers in our own university and in other institutions around Brazil and abroad. Our students have also gone on to be highly qualified teachers and technicians, and some have joined the biomedical industry. The Program aims at stimulating critical and independent scientific thinking, development of top quality research and high impact publications, and interaction/collaboration with local, national and international researchers.

Research focus

The researchers associated with the Program study microbial pathogens (bacteria, virus, fungi, parasites) and tumor cells. The scientific interests of the faculty in the Program fall into four main areas: 1) characterization of cells and immune factors involved in cell invasion, inflammation, neurological processes, and grafts; 2) development and characterization of therapeutic agents and vaccines targeting microbial pathogens and cancer; 3) cell biology, signaling, and pathogenicity mechanisms in microbial pathogens and cancer; 4) molecular epidemiology, genetic diversity, evolution, molecular biology and regulations of gene expression in microbial pathogens.

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Grants

A complete list of grants that support research developed by program faculty can be accessed here: <http://www.microimunounifesp.com.br/home/programa/inserc o-social/financiamentos-vigentes/>

PhD Thesis (2015)

Adriana Taveira da Cruz. The role of miR-138 and miR142-3p in melanoma development. Supervisor: Miriam Galvonas Jasiulionis.

Anderson Messias Rodrigues. Emergent pathogens of the Sporothrix genus and the global evolution of pathogenicity. Supervisor: Zoilo Pires de Camargo.

Camila Tainah da Silva. Transcriptional regulation of the DNMT1 gene caused by inhibition of melanocyte anchoring and the role of DNMT1 in melanoma progression. Supervisor: Miriam Galvonas Jasiulionis.

Carlos Rogerio de Figueiredo. Evaluation of the anti-tumor potential of peptides with sequences designed according to CDR hypervariable regions: activity and mechanism of action in vivo and in vitro of the C36 peptide derived from v1 CDR1 (L1) on the murine B16f10-Nex2 melanoma. Supervisor: Luiz Rodolpho Raja Gabaglia Travassos.

David Anibal Garrido Andrade. Study on the participation of natural killer T-invariant lymphocytes in lung allergic inflammation. Supervisor: Alexandre de Castro Keller.

Erika Fernandes Campos. Elevated BAFF expression levels in the graft and elevated soluble BAFF in the serum are associated with inflammation in kidney grafts with delayed dysfunction. Supervisor: Maria Gerbase de Lima.

Mariana Hiromi de Souza Massaoka. Characterization of the anti-tumor activity in murine and human melanoma of the WT1-PTJ peptide derived from the Wilms tumor protein. Supervisor: Luiz Rodolpho Raja Gabaglia Travassos.

Priscila De Oliveira Colombo. Paracoccidioides brasiliensis protease activity on PARS and on the IL-6 degradation. Supervisor: Erika Suzuki de Toledo.

Roberta Peres da Silva. Characterization of the RNA and carbohydrate contents transported by fungal extracellular vesicles. Supervisor: Rosana Puccia.

Vanessa Oliveira dos Reis. The role of Eixo IL-33/St2 in the pathogenesis of experimental segmental

and focal glomerulosclerosis. Supervisor: Alexandre de Castro Keller.

MSc Thesis (2015)

Bianca Carla Silva Campitelli de Barros. The role of integrin and epithelial cells in the secretion and cytokines induced by *Paracoccidioides brasiliensis*. Supervisor: Erika Suzuki de Toledo.

Camyla Fernandez de Farias. Antitumoral activity of benzofuroxane derivatives in vitro e in vivo: mechanism of action of N-Br and N-I in the induction of apoptosis in B16f10-Nex2 murine melanoma cells. Supervisor: Luiz Rodolpho Raja Gabaglia Travassos.

Carina Carraro Pessoa. Participation of the D2 subunit from the vacuolar ATPase in the biogenesis of the parasitophorus vacuoles from *Leishmania amazonensis* and *Trypanosoma cruzi*. Supervisor: Renato Arruda Mortara.

Caroline Ferreira Guimarães. Potential for malignant transformation of B-1 cells resistant to ionizing radiation. Supervisor: Ana Flavia Popi.

Lais Cristina da Silva. Phylogenetic origin and diversity of virulence markers of several pathotypes of gut pathogenic *Escherichia coli*. Supervisor: Rosa Maria Silva.

Mayra Vitor Pelatti. Identification of inflammatory cytokines secreted by mesenchymal stem cells from the human uterine tube. Supervisor: Tatiana Jazedje da Costa Silva.

Thiago Nunes Roberto. Genotypic characterization and analysis of genetic diversity in paracoccidioidomycosis agents. Supervisor: Zoilo Pires de Camargo.

Prizes

A complete list of prizes awarded to Program members can be seen here: <http://www.microimunounifesp.com.br/home/programa/insercao-social/premios-recebidos/>

Financial support

Fapesp, CNPq, Capes.

International cooperations

The Program faculty maintain intense and productive collaborations with Brazilian researchers and international researchers from important institutions around the world, too many to list here. We invite you to access the complete list of collaborations on the Program website: <http://www.microimunounifesp.com.br/wp-content/uploads/2013/03/Cols-Nac-e-Inter-2013-2016-site-june206.pdf>

Home page

<http://ppg.unifesp.br/patologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1414

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Historical background

The Postgraduate Program in Pathology was founded in 1978, by Prof. Miguel Noel Nascentes Penido Burnier Jr. For the first seven years the Program offered master degrees only; in 1985 the PhD degree was added. The Program has been directed by the following professors:

2005-2006: Profa Francy dos Reis Patricio, Coordinator; Profa. Silvia Saiuli Ihara, Vice-Coordinator

2007-2008 and 2009-2010: Profa. Silvia Saiuli Ihara, Coordinator; Prof. Vicente de Paulo Castro Teixeira, Vice-Coordinator

2011-2012: Prof. João Norberto Stávale, Coordinator; Prof. Gilles Landman, Vice-Coordinator

2013-2015: Prof. Gilles Landman, Coordinator; Profa. Silvia Saiuli Ihara, Vice-Coordinator

The Postgraduate Program in Pathology aims to train highly qualified academic and scientific professionals, qualified to join leading research and teaching groups. Postgraduate students are

expected to develop skills in the following areas during their training: 1) pursuing scientific knowledge with an open-minded approach; 2) conducting scientific experiments following strict and well-designed protocols; 3) thinking critically and independently; 4) summarizing ideas; 5) working in a multi-disciplinary environment; 6) writing grants; 7) teaching; 8) recognizing and evaluating potential ethical issues in research. Students are expected to develop research projects in either experimental or applied pathology, based on literature review and relevant questioning, planning and methodological design. Students attend courses and a weekly scientific meeting.

Throughout the history of the Program, laboratory facilities have been gradually added to improve and expand research possibilities. These facilities include a Laboratory Core Facility, a Biobank, and new laboratory spaces in Research Building I. Now a new diagnostic facility for surgical pathology is under construction. The new facility will include offices for surgical pathologists and researchers, and will house the new PhD Program office.

Research focus

Main areas of research

1. Human Pathology: evaluation of diseases related to metabolism impairment, infectious diseases, circulatory system diseases, degenerative diseases, and liquid and solid neoplasias, all in humans.

2. Experimental Pathology: evaluation of diseases related to metabolism impairment, infectious diseases, circulatory system diseases, degenerative diseases and neoplastic diseases in experimental models (animal and in vitro).

3. Forensic Pathology: improvement of histopathological diagnostic methods and molecular biology applied to forensic diagnosis; evaluation of gene and genotype frequencies in the Brazilian population.

Lines of investigation

1. Carcinogenesis: risk, pathogeny and associated conditions 2. Biomarkers: evaluation and validation of new and known biomarkers in human and experimental models (in vivo and in vitro) 3. Digestive pathology: evaluation of digestive system inflammatory and neoplastic diseases: morphology, biomarkers, risk factors; development of animal models for inflammatory diseases of the gut 4. Degenerative diseases: pathogeny and risk factors of cardiovascular diseases in animal and human models 5. Central nervous system: emphasis on morphology, biomarkers, and risk factors for neoplastic diseases 6. Hematopoietic diseases: emphasis on myeloproliferative diseases and possible influence of tissue microenvironment 7. Skin diseases: morphology, immunohistochemistry, cytogenetics and biomolecular evaluation of skin diseases 8. Cytopathology: human cytopathology (Fine Needle Aspiration, liquid and PAP smears) 9. Breast diseases: special emphasis in neoplastic diseases; morphology, biomarkers, risk factors, HER and KIT tyrosine kinases in ductal carcinomas; evaluation of mesenchymal tumors 10. Pediatric pathology: evaluation of pediatric neoplasias, neonatal pathology and placental diseases 11. Bone pathology: evaluation of bone remodeling in osteoarticular diseases as well as bone tumor morphology, biomarkers and risk factors 12. Forensic pathology: focusing on genetic polymorphisms in the Brazilian population, human identification by DNA analysis in different preservation states; emphasis on molecular biology evaluation 13. Kidney pathology: evaluation of human biopsies and experimental models; morphological evaluation in graft rejection; acute rejection, pathogenesis, genetic profile of donors and hosts in kidney transplantation 14. Infectious diseases: evaluation of infectious agents in experimental and human models 15. Molecular Pathology: genetic and epigenetic evaluation of neoplastic and non-neoplastic diseases; human and experimental investigation 16. Investigative forensic pathology: human identification, focusing on molecular methodologies in forensic pathology; evaluation of vital lesions, histological evaluation of suspicious and/or violent deaths 17. Non-neoplastic diseases: experimental evaluation of non-neoplastic diseases 18. Morphological, physiopathogenic and molecular diseases: mechanisms of adult and childhood diseases.

Selected publications

Selected publications 2015

Puig S, Potrony M, Cuellar F, Puig-Butille JA, Carrera C, Aguilera P, Nagore E, Garcia-Casado Z, Requena C, Kumar R, Landman G, Costa Soares de Sá B, Gargantini Rezze G, Facure L, de Avila AL, Achatz MI, Carraro DM, Duprat Neto JP, Grazziotin TC, Bonamigo RR, Rey MC, Balestrini C, Morales E, Molgo M, Bakos RM, Ashton-Prolla P, Giugliani R, Larre Borges A, Barquet V, Pérez J, Martínez M, Cabo H, Cohen Sabban E, Latorre C, Carlos-Ortega B, Salas-Alanis JC, Gonzalez R, Olazaran Z, Malveyh J, Badenas C. Characterization of individuals at high risk of developing melanoma in Latin America: bases for genetic counseling in melanoma. *Genet Med*. 2015 Dec 17. doi: 10.1038/gim.2015.160.

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Books and chapters

Patologia: processos gerais. Marcello Fabiano de Franco. ISBN: 9788538806035. Páginas: 362, Brasil. Editora Atheneu. 2015.

PhD Thesis (2015)

Luciana Raquel Vincenzi Fachin. Immunohistochemical evaluation of the cell population in the leprosy spectrum and reactional status. Date: 25/08/2015. Supervisor: Marcello Fabiano Franco.

Carolina Foot Gomes. Grape-juice and apple juice effects in rat multiple organs exposed to cadmium chloride. Date: 12/08/2015. Supervisor: Daniel Araki Ribeiro.

MSc Thesis (2015)

Mauricio Mercaldi Pastrelo. Apple juice effects in acetic acid induced colitis rat model. Date 29/10/2015. Supervisor: Ana Paula Ribeiro Paiotti.

Veronica Quispe Yujra. Crack induced genotoxicity and mutagenicity in C57BL/6J mouse. Date: 14/10/2015. Supervisor: Daniel Araki Ribeiro.

Joselmo Willamys Duarte. Azathioprin metabolite evaluation and polymorphism detection in inflammatory colon disease. Date: 03/09/2015. Supervisor: Ana Paula Ribeiro Paiotti.

Daiane Pereira Guimaraes. Intratumoral and inter-metastatic heterogeneity evaluation of the gene BRAF (7Q34) exon 15 in metastatic melanomas. Date: 06/05/2015. Supervisor: Gilles Landman.

Caio Cesar Floriano Luz. Protein expression of Cox-2, VEGF, Hsp27 e Hsp70 in esophageal squamous cell carcinoma. Date: 17/03/2015. Supervisor: Celina Tizuko Fujiyama Oshima.

International cooperations

Northumbria University Centre for Forensic Science, Northumbria University, Newcastle Upon Tyne, UK – Martin Paul Evison, BSc, MSc, PhD.

Prizes

Patricia Naomi Sakae, Henrique Tria Bianco, Luciano Camargo, Juliana Goncalves Carvalho, Maria

Cristina de Oliveira Izar, Silvia Saiuli Miki Ihara, Francisco Antonio Helfenstein Fonseca. Effect of high protein/very low carbohydrate diet and standard hypocaloric diet in obese subjects: nutritional, biochemical and endothelial function evaluations. Annals of XV Brazilian Congress of Atherosclerosis. ISBN: 2214-6474 Brasil. Biochimica Biophysica Acta (BBA clinical) Volume: 3: S7

Andréia Neves Comodo, Mariana Fernandes, Fernando Cintra Lopes Carapeto, Denise Barcelos, Daiane Pereira Guimarães, Andressa Germano, Edna Iwamura, Gilles Landman. Evaluation of intratumoral KIT mutations heterogeneity in Acral-Lentiginous melanomas. Reunión Anual de Dermatologistas Latinoamericanos. Second Place Award in Research Papers. May, 2014.

Financial support

Fapesp, CNPq, Capes, Finep.

Facilities

For a complete description of Program facilities, please see our website: <http://ppg.unifesp.br/patologia>

Research Labs:

1. Molecular Pathology Core Laboratory: open to researchers who seek assistance with paraffin embedded tissue and frozen histological sections, tissue microarray (TMA), laser microdissection, DNA extraction, FISH microscopy, and digital imaging and analysis Coordinator: Prof. Gilles Landman – Contact: glandman@unifesp.br

2. Research Building I Campus São Paulo (fifth floor): Digestive and Degenerative Diseases Laboratory. Coordinator: Prof. Celina Oshima, Prof. Silvia Ihara and post-doc Ana Paula Paiotti. Contact: celina.oshima@gmail.com; silviaihara@gmail.com; appaiotti@gmail.com

3. Research Building I Campus São Paulo (fifth floor): Forensic Pathology Laboratory. Coordinator: Prof. Edna Iwamura. Contact: eiwamura@gmail.com

4. Surgical Pathology Laboratory: dedicated to assist the University Hospital and outpatient facilities, at Campus São Paulo. Home of the surgical pathology residency program since 1977. Department Director: Prof. Ricardo Artigiani. Contact: cardoso.santos@gmail.com

Other information

Program supervisors:

Ana Paula Ribeiro Paiotti
Angela Flavia Logullo Waitzberg
Celina Tizuko Fujiyama Oshima
Daniel Araki Ribeiro
Edna Sadayo Miazato Iwamura
Gilles Landman
Gustavo Rubino de Azevedo Focchi
Joao Norberto Stavale
Marcello Fabiano de Franco
Maria da Gloria Mattosinho de Castro Ferraz
Maria Regina Regis Silva
Maria Teresa de Seixas Alves
Paula Midori Castelo
Rita Sinigaglia Coimbra
Silvia Saiuli Miki Ihara

Medicine (Cardiology)

PhD and MSc Degrees

Home page

<http://www2.unifesp.br/dmed/cardio/pos-graduacao>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1415

Coordinator

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Historical background

The Postgraduate Program in Cardiology at the Escola Paulista de Medicina, Universidade Federal de São Paulo, was established in 1978. As of the end of 2015, 171 master degrees and 169 doctoral degrees have been awarded by the Program. In the same timeframe, 494 full manuscripts were published in national journals and 920 in international journals. These include manuscripts based on students' thesis research, which are generally published in indexed journals. Many graduates of the Program are now working in national or international institutions as researchers, teachers or other roles associated with medical or biological fields.

Professors and students in the Cardiology Program are continuously stimulated to develop innovative research projects within the focus of the Program, and to acquire and maintain funding for their projects.

Research focus

1 – Integrated analysis of physiological and genetic adaptations resulting from cellular injuries and pathologies of the cardiovascular system.

2 – Integration of biomarkers, electrocardiographic registers and multimodality imaging techniques in the diagnosis and monitoring of cardiovascular abnormalities.

3 – Integrated investigation of diagnostic and therapeutic procedures used to identify and treat cardiovascular diseases.

4 – Local and systemic reactions following cardiovascular interventions.

5 – Translational investigation of cardiovascular risk factors: hypertension, atherosclerosis and endothelial dysfunction.

6 – Investigation of cardiovascular effects of sports and physical activities.

7 – Investigation of cardiovascular effects of sleep disturbances and systemic diseases.

8 – Genetic and clinical investigation of cardiovascular malformations and acquired diseases in the fetus, in newborns and in children.

Selected publications

Felipe José de Andrade Falcão, Claudia Maria Rodrigues Alves, Adriano Mendes Caixeta et al. Relation between the ankle-brachial index and the complexity of coronary artery disease in older patients. *Journal of Clinical Interventions in Aging* (Online) 2013, doi 10.2147/CIA.527

Maria Cecília Bahit, Renato Delascio Lopes, Daniel M Wojdyla *et al.* Apixaban in patients with atrial fibrillation and prior coronary artery disease: insights from the Aristotle trial. *International Journal of Cardiology*, 2013; Volume 170, Issue 2: 215-220.

Maria Marta da Silva, Teresa H. Schoen-Ferreira, Antonio Carlos de Camargo Carvalho et al. Behaviour problems in adolescents with cardiac disease:

an exploratory study in a paediatric cardiology outpatient clinic. *Cardiology in the Young*, 2013; Volume 23, Issue 3: 238-376.

Celma Muniz Martins, Francisco Antonio Helfenstein Fonseca, Maria Cristina Oliveira Izar *et al.* Common sources and composition of phytosterols and their estimated intake by the population in the city of São Paulo, Brazil. *Nutrition*, 2013; Volume 29, Issue 6: 865-871.

Mayank Yadav, Tullio Palmerini, Adriano Mendes Caixeta *et al.* Prediction of coronary risk by syntax and derived scores. *Journal of the American College of Cardiology*, 2013; Volume 62, Issue 14: 1219-1230.

Greg Flaker, Renato Delascio Lopes, Elaine Hylek *et al.* Amiodarone, anticoagulation, and clinical events in patients with atrial fibrillation: insights from the ARISTOTLE trial. *Journal of the American College of Cardiology*, 2013; Volume 64, Issue 15: 1541-1550.

Mayank Yadav, Philippe G  n  reux, Adriano Mendes Caixeta *et al.* Syntax score and the risk of stent thrombosis after percutaneous coronary intervention in patients with non-ST-segment elevation acute coronary syndromes: an ACUTY trial sub-study. *Catheterization and Cardiovascular Interventions*, 2015; Volume 85, Issue 1: 1-10.

Val  ria Arruda Machado, Francisco Antonio Helfenstein, Maria Cristina Oliveira Izar *et al.* Plant sterol supplementation on top of lipid-lowering therapies in familial hypercholesterolemia. *International Journal of Cardiology*, 2015; Volume 184: 570-572.

Valdelias Xavier Pereira, Luiz Carlos de Abreu, Celso Ferreira *et al.* The lipodystrophy syndrome as a risk marker for cardiovascular disease in patients with HIV/AIDS treated with HAART. *International Archives of Medicine (Online)*, 2015; doi 10.3823/1677

Luciana Julio Storti Mancuso, Denise M. Servantes, Fatima Dumas Cintra *et al.* Validation of a novel sleep-quality questionnaire to assess sleep in the coronary care unit: a polysomnography study. *Sleep Medicine*, 2015; Volume 16, Issue 8: 971-975.

Isis Begot Valente, Thatiana Cristina Alves Peixoto, Walter Jos   Gomes *et al.* A home-based walking program improves erectile dysfunction in men with an acute myocardial infarction. *The American Journal of Cardiology*, 2015; Volume 115, Issue 5: 571-575.

Books and chapters

Diagn  stico e Tratamento das Doen  as Cardiovasculares do Idoso.    Diferente? Antonio Carlos de Camargo Carvalho. 2013.

S  ncope. F  tima Dumas Cintra. 2013.

Guia Pr  tico de S  ndromes Coron  rias Agudas. Renato Delascio Lopes. 2013.

Procedimentos em Medicina de Urg  ncia e Emerg  ncia. Renato Delascio Lopes. 2013.

Cardiologia na Sala de Emerg  ncia Uma abordagem para o Cl  nico / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2013.

Understanding Clinical Research. Renato Delascio Lopes. 2013.

O Eletrocardiograma na Pr  tica Cl  nica. Rui Manuel dos Santos P  voa. 2013.

Suporte Avan  ado de Vida em Insufici  ncia Coron  ria. Antonio Carlos de Camargo Carvalho. 2014.

Tratado de Preven   o Cardiovascular. Um Desafio Global. Antonio Carlos de Camargo Carvalho. 2014.

Arritmias Card  acas – Rotinas do Centro de Arritmia do Hospital Israelita Albert Einstein: Programa de Cardiologia. F  tima Dumas Cintra. 2014.

Ventila   o Mec  nica na Urg  ncia e Emerg  ncia: Uma abordagem para o Cl  nico / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2014.

Acesso a via a  rea na sala de emerg  ncia: abordagem para o cl  nico / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2014.

Atendimento   s Urg  ncias e Emerg  ncias Psiqui  tricas no Pronto Socorro / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2014.

Gest  o de Pronto Socorro – Ajudando a Evitar a Fal  ncia do Sistema de Sa  de Brasileiro / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2014.

Pneumologia / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2014.

Urg  ncias Oncol  gicas no Pronto-socorro – Uma Abordagem para o Cl  nico / S  rie Emerg  ncias Cl  nicas Brasileiras. Renato Delascio Lopes. 2014.

Atlas de diagn  stico por imagem em cardiologia. Valdir Ambr  sio Mois  s. 2014.

Fundamentos de Ecocardiografia Cl  nica. Valdir Ambr  sio Mois  s. 2014.

Ecocardiografia na Terapia Intensiva e na Emerg  ncia. Antonio Carlos de Camargo Carvalho e Orlando Campos Filho. 2015.

Nefrologia / Série emergências clínicas brasileiras. Renato Delascio Lopes. 2015.

Urgências Endocrinológicas no Pronto-socorro. Uma Abordagem para o Clínico / Série Emergências Clínicas Brasileiras. Renato Delascio Lopes. 2015.

Urgências Neurológicas. Renato Delascio Lopes. 2015.

Compreendendo a Pesquisa Clínica. Renato Delascio Lopes. 2015.

Cardiologia pediátrica. Uma abordagem para cardiologistas e pediatras. Valdir Ambrósio Moisés. 2015.

Grants

Fapesp – 2012/51692-7

Fapesp – 2015/11028-9

CNPQ – 479395/2012-8

CNPQ – 312830/2013-0

CNPQ – 441929/2014-1

CNPQ – 300937/2015-6

PhD Thesis (2015)

David Costa de Souza Le Bihan. Early effects of surgery for treatment of chronic organic mitral regurgitation on reverse remodeling and function of the left atrium. A three-dimensional echocardiography study. Supervisor: Orlando Campos Filho.

Vivian Finotti Ribeiro. Prevalence of burnout syndrome in clinical medical nurses in a hospital of excellence. Supervisor: Celso Ferreira.

Valdelias Xavier Pereira. The lipodystrophy syndrome – A cardiovascular risk marker in patients with HIV-AIDS. Supervisor: Celso Ferreira.

Pedro Gabriel Melo de Barros e Silva. Chronic obstructive pulmonary disease and clinical outcomes in a population of pre-diabetic patients with high cardiovascular risk. Supervisor: Renato Delascio Lopes.

Lucia Romero Machado. Factors related to left atrium reverse remodeling in patients with severe mitral insufficiency undergone to surgery. Supervisor: Valdir Ambrósio Moisés.

MSc Thesis (2015)

Fernando Rocha Oliveira. Fractal analysis of heart rate variability in patients with HIV-AIDS and lipodystrophy syndrome. Supervisor: Celso Ferreira.

Ariana Queiroz de Oliveira. Study of anxiety levels in cardiopathy pregnant women. Supervisor: Antonio Carlos de Camargo Carvalho.

International cooperations

Alberto Costa, MD, PhD – Case Western Reserve University, Department of Pediatrics, project in cooperation with Dr. Celso Ferreira.

John Godleski, MD, PhD – Harvard School of Public Health, Department of Environmental Health, project in cooperation with Dr. Celso Ferreira.

Marielle Scherrer-Crosbie, MD, PhD – Massachusetts General Hospital, Cardiovascular Research Center, project in cooperation with Dr. Orlando Campos Filho

Javier Sanz, MD – Mount Sinai Hospital, Cardiac CT and MR Laboratory, project in cooperation with Dr. Adriano Mendes Caixeta.

Jagat Narula, MD, PhD – Mount Sinai Hospital, Cardiovascular Imaging Program, project in cooperation with Dr. Adriano Mendes Caixeta.

Harvey Hecht, MD – Mount Sinai Hospital, The Lauder Family Cardiovascular Ambulatory Center, project in cooperation with Dr. Adriano Mendes Caixeta.

Akiko Maehara, MD, PhD – Columbia University, Division of Cardiology, project in cooperation with Dr. Adriano Mendes Caixeta.

Gary Mintz, MD – Columbia University, Division of Cardiology, project in cooperation with Dr. Adriano Mendes Caixeta.

Laura Kristin Newby, MD – Duke University, Division of Cardiology, project in cooperation with Dr. Renato Delascio Lopes.

Prizes

Best Oral Presentation, Author: Short-Term Impact of Surgery on Left Atrial Volume and Function in Symptomatic Non-Ischemic Mitral Regurgitation: A 3-Dimensional Echocardiography Study. 68th Brazilian Congress of Cardiology. Brazilian Society of Cardiology. Dr. David Costa de Souza Le Bihan. 2013.

Interdisciplinary Prize, SOCESP – Cardiology Society of São Paulo State. 2014.

IX Health Prize – Category: Health and Prevention, Editora Abril. 2014.

Young Investigator Prize: offered by 70th Brazilian Congress of Cardiology. Title: Patients infected with the HIV virus have reduced endothelial function and lower titers of natural anti-peptide fragments derived from ApoB. Henrique Andrade Rodrigues da Fonseca 2015.

Camilano Scientist Prize – professional category of XIX Scientific Meeting of Centro Universitário São Camilo; Title: Effects of high protein diet with carbohydrate restriction and traditional hypocaloric diet in obese subjects: nutritional, biochemical and endothelial function evaluations. Francisco Antonio Helfenstein Fonseca 2015.

Sergio Diogo Gianinni Prize – Oral presentation (2nd place– clinical research), XV Brazilian Congress of Atherosclerosis; Title: Effect of high protein/very low carbohydrate diet standard hypocaloric diet in obese subjects: nutritional, biochemical and endothelial function evaluations. Francisco Antonio Helfenstein Fonseca 2015.

Sergio Diogo Gianinni Prize – (3rd place- basic research). XV Brazilian Congress of Atherosclerosis; Title: Imbalance between B1 and B2 subtypes of lymphocytes is related to Coronary Artery Disease. Ana Carolina Carneiro Aguirre 2015.

Financial support

Fapesp, Capes, CNPq.

Facilities

For a description of our facilities, please see <http://www.posgrad.epm.br/biomol/multiequipa>.

Surgical Science Interdisciplinary

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/cienciacirurgica>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1417

Coordinator

Gaspar de Jesus Lopes Filho

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(55 11) 5576-4848 extension 2653/2655

Historical background

The Postgraduate Program in Interdisciplinary Surgical Science Unifesp – Paulista School of Medicine (EPM) was established in 1975. The goal of the Program is to train faculty and researchers and to design innovative research projects that uncover new knowledge about human health and disease. Students in this Program choose an area of concentration, but also study related fields, in order to develop skills in critical assessment of scientific information and to gain knowledge of clinical epidemiological tools used in scientific research. Special emphasis is given to Critical Evaluation of Scientific Literature, Scientific Methodology, Research Integration, Biostatistics, Research Information Technology, Research Development and Didactic-Pedagogical Training. Through these studies, participants develop critical and independent reasoning in their area of concentration, become informed

about related areas, participate in high-level scientific activities, use advanced technologies, and are able to form collaborations within Unifesp and with other institutions. There are currently seven areas of concentration in the Program: Vascular Surgery, Cardiac Surgery, Anesthesiology, Thoracic Surgery, Surgical Gastroenterology, Pediatric Surgery and Operative Technique and Experimental Surgery.

Research focus

1. Effects of experimental biological procedures

1.1 Postoperative functional and histopathologic changes

1.2 Operative strategies and graft survival and recipient in organ transplants

2. Diagnostic and therapeutic innovations

2.1 Tissue expression of biomarkers and diagnostic and prognostic correlations

2.2 Evaluation of the efficacy of minimally invasive surgical techniques

2.3 Evaluation of alternative analgesic and anesthetic techniques

2.4 Pathophysiology and diagnosis of digestive tract dysmotility

2.5 Morpho-functional impact and post-surgical tissue healing application of prosthesis

2.6 Systematic review of surgical therapeutic interventions

2.7 Prevention of adverse perioperative events

Selected publications

Cavalcanti Neto AJ, Lustosa SAS, Casazza G, Reis C, Gomes MP, Do Carmo ACF, D'Ippolito G, Matos D. Combination of magnetic resonance cholangiopancreatography and conventional magnetic resonance imaging for the diagnosis of bile duct stenosis (Protocol). Cochrane Database of System-

atic Reviews 2015, Issue 5. Art. N° CD011692. DOI: 10.1002/14651858.CD011692.

Sella VRG, Bomfim FRC, Machado PCD, Morsoleto MJMS, Chohfi M, Plapler H. Effect of low-level laser therapy on bone repair: a randomized controlled experimental study. *Lasers Med Sci*. 2015 Apr;30(3):1061-8. Doi: 10.1007/s10103-015-1710-0.

Gomes Jr CAR, Lustosa SAS, Matos D, Andriolo RB, Waisberg DR, Waisberg J. Percutaneous endoscopic gastrostomy versus nasogastric tube feeding for adults with swallowing disturbances (Protocol). *Cochrane Database of Systematic Reviews* 2009, Issue 4. Art. No.: CD008096. DOI: 10.1002/14651858.CD008096.

Menezes MA, Herbella FAM, Patti MG. High-Resolution Manometry Evaluation of the Pharynx and Upper Esophageal Sphincter Motility in Patients with Achalasia. *J Gastrointest Surg* (2015) 19: 1753. doi:10.1007/s11605-015-2901-5.

Linhares MM, Affonso Jr RJ, Viana LdS, Silva SRM, Denadai MVA et al. (2015) Genetic and Immunohistochemical Expression of Integrins ITGA5, ITGA6, and ITGA3 As Prognostic Factor for Colorectal Cancer: Models for Global and Disease-Free Survival. *PLoS ONE* 10(12): e0144333. DOI: 10.1371/journal.pone.0144333

Franco RMAMM, Linhares MM, Lustosa SAS, Silva IDGC, Souza NCN, Matos D. Analysis of differentially expressed genes in colorectal adenocarcinoma with versus without metastasis by three-dimensional oligonucleotide microarray. *Int J Clin Exp Pathol*. 2013 Dec 15;7(1):255-63.

Schraibman V, Macedo ALV, Epstein MG, Mayte Y, Maccapani G, Matos D, Rizzo LV, Goldman SM. Comparison of the morbidity, weight loss, and relative costs between robotic and laparoscopic sleeve gastrectomy for the treatment of obesity in Brazil. *Obes Surg*. 2014 Sep;24(9):1420-4. DOI: 10.1007/s11695-014-1239-5

Lucena CGP, Linhares MM, Artigiani Neto R, Resende DT, Lopes Filho GJ e Matos D. Early and late postoperative inflammatory and collagen deposition responses in three different meshes: an experimental study in rats. *Hernia*. 2014 Aug;18(4):563-70. Doi: 10.1007/s10029-013-1206-4.

Vicentine FPP, Herbella FAM, Allaix ME, Silva LC, Patti MG. High-Resolution Manometry Classifications for Idiopathic Achalasia in Patients with Chagas' Disease Esophagopathy. *J Gastrointest Surg*. 2014 Feb;18(2):221-4; discussion 224-5. Doi: 10.1007/s11605-013-2376-1.

Pannocchia Neto SC, Herbella FAM, Silva LC e Patti M.G. Ratio Between Proximal/Distal Gastro-

esophageal Reflux Does Not Discriminate Abnormal Proximal Reflux. *World J Surg*. 2014 Apr;38(4):890-6. Doi: 10.1007/s00268-013-2341-x

Viana L de S, Affonso Jr RJ, Silva SR, Denadai MV, Matos D, Salinas de Souza C, Waisberg J. Relationship between the expression of the extracellular matrix genes SPARC, SPP1, FN1, ITGA5 and ITGAV and clinicopathological parameters of tumor progression and colorectal cancer dissemination. *Oncology*. 2013;84(2):81-91. Doi: 10.1159/000343436.

Quinino RM e et al. Adhesion prevention in reabsorbable polyethylene glycol hydrogel (Coseal®) coated polypropylene mesh in rabbits. *Acta Cir. Bras.* [online]. 2013, vol.28, n.12, pp.807-814. ISSN 1678-2674. Doi: 10.1590/s0102-86502013001200001

Simões Neto, J; Reis Neto, JA and Matos, D. Effects of preoperative irradiation using fractionated electron beam on the healing process of colocolonic anastomosis in rats undergoing early and late surgical intervention. *Acta Cir. Bras.* [online]. 2013, vol.28, n.1, pp.72-77. ISSN 1678-2674. Doi: 10.1590/s0102-86502013000100012.

Herbella FA, Laurino Neto RM, Allaix ME, Patti MG. Extended lymphadenectomy in esophageal cancer is debatable. *World J Surg*. 2013 Aug;37(8):1757-67. Doi: 10.1007/s00268-013-2018-5.

Peron Jr G, Salzedas Netto AA, Mancero JP, Ribeiro Jr MAF, Copstein JL, Silva AO, D'Albuquerque LAC e Gonzalez AM. Relationship between preoperative volume and weight of the right liver lobe graft, with and without the middle hepatic vein, in living-donor transplantation. *World J Surg*. 2013 Jan;37(1):202-7. Doi: 10.1007/s00268-012-1778-7.

Books and chapters

Achalasia: diagnosis and treatment. Fernando AM Herbella. 2015. ISBN: 9783319135687. Ed Springer International Publishing.

Complicações precoces e tardias em estomas intestinais e pele periestomia. Delcio Matos. 2015. ISBN: 9788538806301. Ed Atheneu.

Doença oclusiva íliaca. Fausto Miranda Junior. 2015. ISBN: 9788599777053. Ed. Nova Bandeira Produções.

Achalasia and Chaga's disease. Rafael Melillo Laurino Neto. 2015. ISBN: 9783319135687. Ed Springer International Publishing.

Laparoscopic heller myotomy and fundoplication. What type? Mariano de Almeida Menezes.

2015. ISBN: 9783319135687. Ed Springer International Publishing.

Câncer de esôfago. Fernando AM Herbella. 2014. ISBN: 9788536702407. Ed Artes Médicas.

Failed antireflux surgery: Analysis of the causes and treatment. Fernando A M Herbella. 2014. ISBN: 978-1-4471-5483-9. Ed London Springer-Verlag.

Afecções cirúrgicas no recém-nascido. José Luiz Martins. 2014. ISBN: 9788536702414. Ed. Artes Médicas.

Trombose venosa profunda. Fausto Mirana Junior. 2014. ISBN: 9788536702414. Ed. Artes Médica.

PhD Thesis (2015)

Gustavo Pilotto Domingues Sá, Liver transplantation for hepatocellular carcinoma in the MELD era in São Paulo: 414 cases of transplant by Milan / Brazil evaluation criteria. Supervisor: Adriano Miziara Gonzalez

Edinaldo Goncalves de Miranda, Expression of P53 protein, HER2 and Ki67 in mice subjected to bladder augmentation with stomach, colon and ileum. Supervisor: Jaques Waisberg

Felipe José de Moura Vianna. Arterial calcification relation and levels of fetuin A in patients with chronic renal failure in early hemodialysis therapy. Supervisor: Fausto Miranda Junior.

MSc Thesis (2015)

Mariano de Almeida Menezes. High-resolution manometric evaluation of the pharynx and upper esophageal sphincter in patients with achalasia. Supervisor: Fernando Augusto M. Herbella Fernandes.

Ana Karina Soares Alves. Infusion effect of mesenchymal stem cells in liver regeneration after 70% hepatectomy: experimental model in mice. Supervisor: Marcelo Moura Linhares.

Leonardo de Mello del Grande. Esophageal function tests study in patients with chronic obstructive pulmonary disease. Supervisor: Fernando Augusto M. Herbella Fernandes.

Thiago de Bortoli Nogueira. Helicobacter pylori infection, endoscopic histological aspects and cell proliferation in gastric mucosa of patients submitted to Roux-en-y gastric bypass with contention ring: a cross-sectional endoscopic and immunohistochemical study. Supervisor: Jaques Waisberg.

Danilo José Fiorindo Faria. Folic acid effect in

three experimental models of anorectal abnormalities in mice. Supervisor: José Luiz Martins.

Rodrigo Caetano de Souza. Mucosa – muscular signaling pathways in esophageal dysmotility induced through ursodeoxycholic acid: an experimental study with guinea-pig. Supervisor: Fernando Augusto M. Herbella Fernandes.

Luis Gustavo Baaklini. Assessment of the analgesic effect of magnesium and morphine in combination in patients with cancer pain: a comparative randomized double-blind study. Supervisor: Rioko Kimiko Sakata.

Ligia Patricia de Carvalho Batista da Silva Éboli. Animal model of acute hepatic failure induced by D -galactosamine in mice. Supervisor: Adriano Miziara Gonzalez.

Carlos Toshinori Maeda. Inflammatory response and collagen morphometry study in the early and late stages between high and low density polypropylene meshes, encapsulated polypropylene with polydioxanone, coated with oxidized cellulose and expanded polytetrafluoroethylene. Supervisor: Marcelo Moura Linhares.

Ed Carlos Rey Moura. Minimum effective concentration of bupivacaine in femoral nerve guided lock ultrasound-guided femoral nerve block after arthroscopic knee meniscectomy: a double – blind randomized study. Supervisor: Rioko Kimiko Sakata.

International cooperations

Hopital Paul Brousse – Université Paris XI. (Prof. René Adam) and Institut Henri Bismuth (Prof. Hon. Henri Bismuth) – Prof. Marcelo Moura Linhares, Dr. Rogério Oubregon de Mattos, Dr. Leandro Dias César.

Hopital Paul Brousse – Université Paris-Sud. Prof. Adriano Miziara Gonzalez. Hopital Saint Antoine (Prof. Olivier Soubrane) – Prof. Marcelo Moura Linhares, Dr. Fernando Piza Pompeu Vicentini.

University of Chicago (Prof. Marco G. Patti) – Prof. Fernando Augusto Mardiros Herbella.

Université Pierre et Marie Curie-UPMC, Paris (Prof. Olivier Soubrane e Fabiano Perdigão) – Prof. Adriano Miziara Gonzalez, Dr. Fernando Pompeu Piza Vicentini.

University Hospital Zurich-Division of Visceral and Transplant Surgery, Switzerland (Prof. Pierre-Alain Clavien) – Prof. Gaspar de Jesus Lopes Filho, Profa. Michelle Lucinda Gonçalves de Oliveira

Seoul National University Hospital – Snuh, Seoul,

Korea (Prof. Hee Won Jung e Jae-Hoon Song) – Prof. Adriano Miziara Gonzalez.

The Cochrane Collaboration – Centro Cochrane do Brasil (Prof. Álvaro N. Atallah) – Prof. Delcio Matos.

Financial support

Fapesp, CNPq, Capes.

Facilities

Research in our Program takes place in a collaborative scientific system, integrating various departments within our institution and in other institutions, to provide a full range of facilities, equipment and supplies for development of thesis work. The following departments are included:

Digestive Physiology Division (Setor de Fisiologia Digestiva – SEFIDI) – Unifesp-EPM, Prof. Edson José Lobo.

Operative Technique Laboratory of Experimental Surgery – Unifesp-EPM, Prof. Murchad Omar Taha

Laboratory of Experimental Surgery- Unifesp-EPM, Prof. Dr. Ivan Hong Jung Koh.

Department of Surgery Animal House Facility – Unifesp-EPM.

Integrated Laboratory of Research in Surgery, Prof. Dr. José Luiz Martins.

Department of Pathological Anatomy- Unifesp-EPM, Prof. Ricardo Artigiani.

Anorectal manometry Laboratory of the Pediatric Surgery Discipline, Prof. Dr. José Luiz Martins, Unifesp-EPM.

Experimental Model Development Center for Medicine and Biology, CEDEME – Unifesp-EPM, Profa. Heloísa Allegro Baptista.

GRAAC Molecular Biology Laboratory, Profa. Silvia R. Caminada de Toledo.

Laboratory of Biophysics – Unifesp-EPM, Profa. Adriana K. Carmona.

Laboratory of Genetics – Unifesp-EPM, Profa. Marília Smith.

Laboratory for Molecular Gynecology – Unifesp-EPM, Prof. Dr. Ismael Dale Cotrim.

Laboratory of Pharmacology CINTERGEN – Unifesp-EPM, Prof. Dr. Hugo Pequeno Monteiro.

Laboratory of Pharmacology – Unifesp-EPM, Prof. Dr. Afonso Carinatti.

Department of Imaging (Diagnostic Imaging)-

Unifesp-EPM, Prof. Nitamar Abdala.

Preventive Medicine Department – Biostatistics – Unifesp-EPM, Profa. Rebeca de Souza e Silva.

Health IT Department (DIS – Departamento de Informática em Saúde)- Unifesp-EPM, Prof. Paulo Bandiera Paiva.

Cochrane Collaboration – Meta-analysis Unit, Prof. Álvaro N. Atallah.

Technological Institute of Aeronautics (Instituto Tecnológico da Aeronáutica).

Other information

The Interdisciplinary Surgical Science Postgraduate Program began in 1975 as the Surgical Gastroenterology Postgraduate Program. In 2012 the Program was reorganized along thematic lines; concentration areas and lines of research were regrouped, and highly qualified mentors were recruited. At this time the Postgraduate Program in Interdisciplinary Surgical Science has 15 Mentors, one being a collaborator. As of December 2015, the Program has awarded 229 Masters and 133 PhD degrees, and sponsored 5 Postdoctoral Fellows. Currently the Program has 19 Master degree students, 24 Doctoral students, 16 undergraduate students and 6 Postdoctoral Fellows.

Medicine (Clinical Endocrinology)

PhD and MSc Degrees

Home page

<http://www.endocrinologia.sites.unifesp.br/site>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1419

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Historical background

The Postgraduate Program in Endocrinology was created in 1975, and was initially focused on training physicians. In 1998 the Program was expanded to include other health professionals, filling a gap in that area. The Program is designed to provide research-oriented training in different areas of endocrinology including diabetes, obesity, thyroid disorders, neuroendocrinology, osteo-metabolic diseases, adrenal disorders, and gonadal disorders. The main goal of the Program is to prepare students for the professional practice of teaching and research. It also aims to enable students to develop and sustain their own research with autonomy and high standards. The infrastructure consists of well-equipped research laboratories, outpatient clinics and hospital facilities. Since the Program's foundation it has awarded more than 300 Master or PhD degrees. Currently the faculty is composed of 20 highly qual-

ified researchers, most of them with post-doctoral training in research centers of the United States, England, Germany, Italy and France.

Research focus

Research carried out in the Endocrinology Program includes clinical, experimental and translational research in different areas of endocrinology (diabetes, obesity, thyroid, adrenal, neuroendocrinology, osteoporosis/metabolic bone disease, gonads and development). The main areas of research are epidemiology of endocrine disorders, physiology and pathophysiology in endocrinology, cellular and molecular basis of endocrine-metabolic diseases, methodological advances in measurement of hormones, and therapy in endocrine disorders.

Selected publications

Pedro Saddi Rosa. Association of circulating levels of nicotinamide phosphoribosyltransferase (NAMPT/visfatin) and of a frequent polymorphism in the promoter of the NAMPT gene with coronary artery disease in diabetic and non-diabetic subjects. *CardiovascDiabetol*. 2013 Aug 22; 12:119.

Fonseca T.L. Coordination of hypothalamic and pituitary T3 production regulates TSH expression. 2013. *J Clin Invest*. 2013 Apr; 123(4):1492-500.

Cleber Pinto Camacho. Measurement of Calcitonin and Calcitonin GeneRelated Peptide mRNA Refines the Management of Patients with Medullary Thyroid Cancer and May Replace Calcitonin-Stimulation Tests. *Thyroid*. 2013 Mar; 23(3):308-16.

Alexandra Passos Gaspar. Bone mass and hormone analysis in spinal cord injury patients: evidences for a gonadal axis disruption. 2014. *J ClinEndocrinolMetab*. 2014 Dec; 99(12):4649-55. doi: 10.1210/jc.2014-2165

PatriciaChamadoiraKhun. Evaluation of body adiposity index (BAI) to estimate percent body fat

in an indigenous population. *ClinNutr.* 2014 Apr; 33(2):287-90.

Ji Hoon Yang. Integration of a postoperative calcitonin measurement into an anatomical staging system improves initial risk stratification in medullary thyroid cancer. 2014. *ClinEndocrinol (Oxf)*. 2015 Dec;83(6):938-42.

Marlyn Zapata Montoya. Molecular cloning of ion channels in feliscatus that are related to periodic paralyses in man: a contribution to the understanding of the genetic susceptibility feline neck ventroflexion and paralysis. 2014. *Biol Open*. 2014 Jul 25;3(9):785-93.

Ana LuizaRabeloRolim. The insulin-sensitivity sulfonylurea receptor variant is associated with thyrotoxic paralysis. 2014. *J MolEndocrinol*. 2014 Oct;53(2):295-301.

Maria Isabel Cunha Vieira Cordioli. Are we really at the dawn of understanding sporadic pediatric thyroid carcinoma? 2015. *EndocrRelat Cancer*. 2015 Dec;22(6):R311-24.

Fernando KornMalerbi. Comparison between binocular indirect ophthalmoscopy and digital retinography for diabetic retinopathy screening: the multicenter Brazilian type 1 diabetes study. 2015. *DiabetolMetabSyndr*. 2015 Dec 21;7:116.

Suelem Izumi Lima. IGF-1 levels are inversely associated with metabolic syndrome in obstructive sleep apnea. 2015. *J Clin Sleep Med*. 2016 Apr 15;12(4):487-93.

Meloni, V.A. Novel Homozygous ALX4 mutation causing frontonasal dysplasia-2 in a patient with meningoencephalocele. *ClinGenet*. 2015 Dec;88(6):593-6.

Books and chapters

Chapter: Thyroid Cancer – Rui M.B.Maciél. 2013. in: *Câncer de Tiróide: Classificação e Diagnóstico* – Editor: Lucio Vilar, Publisher: Gen Editora.

Chapter: Relevance of renin/angiotensin system in the complications of diabetes. Maria Teresa Zanella. 2013. in: *Diabetes Mellitus* – Publisher: A.C. Farmacêutica.

Chapter: Methods for the analysis of nucleic acids: DNA and RNA. Janete Maria Cerutti. 2013. in: *Guia de Genética Médica* – Publisher: Manole.

Chapter: Cushing Syndrome. Claudio Elias Kater. 2013. in: *Atualização Terapêutica* – Publisher: Artes Médicas.

The role of Y chromosome genes on tumor development risk in disgenetic gonads. Monica Vannucci

Nunes Lipay. 2013. *Obra: Sex Chromosomes: New Research*, Nova Science Publishers Inc.

Neonatal Diabetes Melitus. Regina C.M.S.Moisés. 2014. in: *Atualização Terapêutica* – Publisher: Artes Médicas.

Chapter: Changes in calcium homeostasis. Marise Lazaretti Castro. 2014. in: *Atualização Terapêutica* – Publisher: Artes Médicas.

Chapter: MODY. André Fernandes Reis. 2014. in: *Tratado de Endocrinologia Clínica* – Publisher: A.C. Farmacêutica Ltda.

Chapter: A public health problem- epidemiology. Laercio Joel Franco. 2014. in: *Rotinas de Diagnóstico e Tratamento de Diabetes Mellitus* – Publisher: GEN Editora.

Book: Guia Prático de Osteometabolismo – Editors: Sergio S. Maeda and Dalisbor da Silva, Publisher: Segmento Farma, 2014.

Chapter: Adrenal diseases. Claudio Elias Kater. 2015. in: *Desafios em Endocrinologia. Casos Clínicos Comentados* – Publisher: MedBook.

Chapter: Autoimmune diseases of thyroid. Rui M.B. Maciel, 2015. *Atualização Terapêutica* – Publisher: Artes Médicas.

Chapter: Rickets and osteomalacea. Sergio Setsuo Maeda. 2015. in: *Endocrinologia e Diabetes* – Publisher: MedBook.

Grants

CNPq, Fapesp.

PhD Thesis (2015)

Carla Sanchez Bergamin. HLA class II and the relationship between viral infection and autoimmunity in type 1 diabetes multiplex families. Supervisor: Sergio Atala Dib.

Mariana Telles Silveira. Contributions from psychology in assembling an outpatient service for patients with Disorders of Sex Development (DSD) within the Division of Endocrinology at the Universidade Federal de São Paulo: organization, clinical research and interventions. Supervisor: Claudio Elias Kater.

Simone Vicente Matsuda. The influence of metabolic control on anatomic and functional response of diabetic macular edema treatment with anti – VEGF. Supervisor: Maria Teresa Zanella.

Ji Hoon Yang. New aspects of the follow-up of

differentiated and medullary thyroid carcinoma. Supervisor: Rui M.B. Maciel

Revilane Parente de Alencar Britto. Nutritional and metabolic alterations in short stature women. Supervisor: Ana Lydia Sawaya

Valdecira Maria Piveta. Prediabetes in patients undergoing coronary catheterization: implications of using different diagnostic criteria. Supervisor: André Fernandes Reis.

Maria Paula de Albuquerque. Clinical and anthropometric profile of undernourished children treated in day-hospital at Nutrition and Education Recovery Centers (CREN) 2002-2013. Supervisor: Ana Lidya Sawaya.

Susan Chow Lindsey. Clinical-molecular diagnosis, prognosis and evaluation of tumor signaling pathways gene expression for individualization of follow-up of patients with medullary thyroid cancer. Supervisor: Magnus R. Dias da Silva

Maria Sharmila Alina de Sousa. Multiple endocrine neoplasia type 2: Translational medicine, bioethics and society. Supervisor: Rui M.B. Maciel.

Augusto Pimazoni Netto. Efficacy of Multifactorial Interventions for the Short Term Control of Type 2 Diabetes – A Randomized, Controlled Proof-of-Concept Study. Supervisor: Maria Teresa Zanella.

MSc Thesis (2015)

Patricia Muszkat. Prevalence of vertebral fracture detected by Digital Vertebral Morphometry by DXA in women under treatment for osteoporosis in outpatient specialized clinic. Supervisor: Marise Lazaretti Castro.

Haron Silva, Dorta. Amplified immunohistochemical study of the vastus lateralis muscle in periodic thyrotoxic paralysis. Supervisor: Magnus R. Dias da Silva.

Juliana Vallim Jorgetto. Impact of diabetes mellitus on the quality of life of its patients – gender differences. Supervisor: Laercio Joel Franco.

International cooperations

Gregory J. Riggins, Associate Professor of Neurosurgery, Pathology, Oncology and Genetic Medicine, Department of Neurosurgery, Johns Hopkins University School of Medicine, Baltimore, MD, USA.

Prof. Mingzhao Xing – Johns Hopkins University School of Medicine, Baltimore, MD, USA

Dr. Gilberto Velho, INSERM, France.

Thyroid Studies Collaboration: United States (Cardiovascular Health Study; Health, Aging, and Body Composition Study); United Kingdom (Birmingham Study and EPIC-Norfolk Study); Norway (Nord- Trøndelag Health Study (HUNT Study); Netherlands (Leiden 85-Plus Study); Italy (Pisa Cohort); Germany (Study of Health in Pomerania); Australia (Busselton Health Study).

Antonio Carlos Bianco, Chief, Division of Endocrinology, Rush University Medical School, Chicago.

John P. Bilezikian, Chief of the division of Endocrinology, Director of Metabolic Bone Diseases Program, University of Columbia, NY, EUA.

Prizes

Janete Maria Cerutti – Senior Researcher of the Latin American Thyroid Society, 15th ITC, 2015.

Lais de Souza Moraes, Janete Maria Cerutti – José Carlos Prates Award: Best scientific paper (PhD category) – Meeting of the Structural and Functional Biology Program (2015).

Angela Leal, Rosângela Villa Marin Mio, Michael Francis Holick, Marise Lazaretti-Castro. Best Poster Award – VI Brazilian Congress of Densitometry, Osteoporosis and Osteometabolism – BRADDOO. Title: Differences in the in vitro photoconversion of vitamin D, Fortaleza and Sao Paulo.

Rodrigo Nolasco dos Santos, Monica Longo de Oliveira, Rosângela Vila Marin Mio, Ivan Schonnman, Milena Carrijo Dutra, Marise Lazaretti Castro. Second Place Award, Best Clinical Free Theme (Sergio Ragi Eis Prize) – VI Brazilian Congress of Densitometry, Osteoporosis and Osteometabolism – BRADDOO. Title: Repercussions of the static balance in the strength and agility of postmenopausal women participating in a Rehabilitation and Activity Program Physics directed to Osteoporotic (PRADO).

Sergio Atala Dib, Francisco Arduino. Award for the 30 years of Research in diabetes – Brazilian Society of Diabetes, XX Brazilian Congress of Diabetes, 2015.

Taciana Paes, Celso S. Filho, Fernando Malerbi, Luis Clemente Rolim and Sergio Dib. Third place Award oral presentation – XX Brazilian Congress of Diabetes, 2015.

Renata A. Dotto, Andre L.G. Matta, Luciana Franco, Leticia S. Weinert, Sandra P. Silverio, Fernando

Giuffrida, Magnus R. da Silva, João Roberto de Sá
and Andre Reis. Award 1st. Place poster presentation
– 20th Brazilian Congress of Diabetes, 2015.

Financial support

CNPq, Fapesp, Finep, Capes.

Home page

<http://ppg.unifesp.br/gastroenterologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1420

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Historical background

The Postgraduate Program in Gastroenterology was founded in 1976. During the last forty years the Program has focused on training students who come from a variety of health science backgrounds, including physicians, nurses, biologists, biomedical engineers, psychologists and nutritionists. The aim of the Program has been to prepare students to become excellent researchers and teachers, able to work independently. Many postgraduates of the Program are now professors and researchers in institutions throughout Brazil, contributing to the development of science and medicine in this country.

Research focus

- **Experimental hepatology:** studies on ischemia and reperfusion and the kinin-kallikrein system using isolated rat liver

- **Gastrointestinal oncology:** molecular biology of diagnostic and prognostic markers of gastric and colorectal cancer

- **Viral hepatitis:** epidemiology, diagnosis and therapeutic aspects, with emphasis on the study of hemodialysis and renal transplant patients; molecular biology applied to the study of HBV, HCV and HEV

- **Cirrhosis, hepatocellular carcinoma and liver transplant:** epidemiological studies, diagnostic markers, indirect markers of fibrosis, renal dysfunction in cirrhotic patients

- **Non-alcoholic fatty liver disease and nutrition in hepatic diseases**

Selected publications

Gomes TS, Noguti J, Forones NM, Lima FO, Dobo C, Fernandes Junior JA, Oshima CT, Ribeiro DA. Correlation analysis of c-myc, p21(WAF/CIP1), p53, C-erbB-2 and COX-2 proteins in esophageal squamous cell carcinoma. *Pathol Res Pract*. 2013 Jan 15;209(1):6-9.

Da Silva LC, Forones NM, Ribeiro DA, Ihara SS, Gomes TS, Neto RA, Oshima CT. Immunoexpression of DIABLO, AIF and cytochrome C in gastric adenocarcinoma assessed by tissue Microarray. *Anticancer Res*. 2013 Feb;33(2):647-53.

Alves R, Queiroz AT, Pessoa MG, da Silva EF, Mazo DE, Carrilho FJ, Carvalho-Filho RJ, de Carvalho IM. The presence of resistance mutations to protease and polymerase inhibitors in Hepatitis C virus sequences from the Los Alamos databank. *J Viral Hepat*. 2013 Jun;20(6):414-21.

Carvalho-Filho RJ, Narciso-Schiavon JL, Schiavon LL. From the CUPIC study: great times are not coming. *J Hepatol*. 2014 Jan;60(1):234-5.

Passos AM, Heringer TP, Medina-Pestana JO, Ferraz ML, Granato CF. First report and molecular characterization of hepatitis E virus infection in renal transplant recipients in Brazil. *J Med Virol*. 2013 Apr;85(4):615-9.

Silva I, Carvalho Filho R, Feldner AC, Zaros I,

Silva AE, Ferraz ML. Poor response to hepatitis C treatment in elderly patients. *Ann Hepatol.* 2013 MayJun;12(3):392-8.

Schiavon Lde L, Narciso-Schiavon JL, de Carvalho-Filho RJ. Non-invasive diagnosis of liver fibrosis in chronic hepatitis C. *World J Gastroenterol.* 2014 Mar 21;20(11):2854-66.

Franco MC, Gomes GF, Nakao FS, de Paulo GA, Ferrari AP Jr, Libera ED Jr. Efficacy and safety of endoscopic prophylactic treatment with undiluted cyanoacrylate for gastric varices. *World J Gastrointest Endosc.* 2014 Jun 16;6(6):254-9.

Hoff PM, Saragiotto DF, Barrios CH, del Giglio A, Coutinho AK, Andrade AC, Dutra C, Forones NM, Correa M, Portella M do S, Passos VQ, Chinen RN, van Eyll B. Randomized phase III trial exploring the use of long-acting release octreotide in the prevention of chemotherapy-induced diarrhea in patients with colorectal cancer: the LARCID trial. *J Clin Oncol.* 2014 Apr1;32(10):1006-11.

Pimenta CA, Latini FR, De Lima JM, Da Silva TD, Felipe AV, De Lima Pazine VM, Forones NM. Study of the polymorphisms of cyclooxygenase-2 (-765G>C) and 5-lipoxygenase (1708G>A) in patients with colorectal cancer. *Oncol Lett.* 2014 Feb;7(2):513-518.

Shiffman ML, Cheinquer H, Berg CP, Berg T, de Figueiredo-Mendes C, Dore GJ, Ferraz ML, Mendes-Corrêa MC, Lima MP, Parise ER, Rios AM, Reuter T, Sanyal AJ, Shafran SD, Hohmann M, Tatsch F, Bakalos G, Zeuzem S. Extended treatment with pegylated interferon alfa/ribavirin in patients with genotype 2/3 chronic hepatitis C who do not achieve a rapid virological response: final analysis of the randomised N-CORE trial. *Hepatol Int.* 2014 Oct;8(4):517-26.

Hering T, Passos AM, Perez RM, Bilar J, Fragano D, Granato C, Medina-Pestana JO, Ferraz ML. Past and current hepatitis E virus infection in renal transplant patients. *J Med Virol.* 2014 Jun;86(6):948-53.

Aguiar PN Jr, Tadokoro H, Forones NM, de Mello RA. MMR deficiency may lead to a high immunogenicity and then an improvement in anti-PD-1 efficacy for metastatic colorectal cancer. *Immunotherapy.* 2015;7(11):1133-4.

Silva RM, Campanholo VM, Paiotti AP, Artigiani Neto R, Oshima CT, Ribeiro DA, Forones NM. Chemopreventive activity of grape juice concentrate (G8000TM) on rat colon carcinogenesis induced by azoxymethane. *Environ Toxicol Pharmacol.* 2015 Nov;40(3):870-5.

Wahle RC, de Mello Perez R, Takemi Emori C, de Oliveira Uehara SN, da Silva Fucuta P, Melo Rocha C, de Castro Amaral Feldner AC, de Souza e Silva IS, Carvalho-Filho RJ, Silva AE, Gomes Ferraz ML. Does hepatitis B virus coinfection have any impact on treatment outcome in hepatitis C patients on hemodialysis? *Ann Hepatol.* 2015 MayJun;14(3):317-24.

Carvalho-Filho RJ, Feldner AC, Silva AE, Ferraz ML. Management of hepatitis C in patients with chronic kidney disease. *World J Gastroenterol.* 2015 Jan 14;21(2):408-22.

Lapalus M, Laouenan C, Cardoso AC, Estrabaud E, Carvalho-Filho RJ, Zhang Q, Lada O, Appourchaux K, Mouri F, Boyer N, Bedossa P, Asselah T, Martinot-Peignoux M, Marcellin P. Precore/Core promoter variants to predict significant fibrosis in both HBeAg positive and negative chronic hepatitis B. *Liver Int.* 2015 Sep;35(9):2082-9.

Bonilha DQ, Lenz L, Correia LM, Rodrigues RA, de Paulo GA, Ferrari AP, Della Libera E. Propranolol associated with endoscopic band ligation reduces recurrence of esophageal varices for primary prophylaxis of variceal bleeding: a randomized-controlled trial. *Eur J Gastroenterol Hepatol.* 2015 Jan;27(1):84-90.

Martins FP, Kahaleh M, Ferrari AP. Management of liver transplantation biliary stricture: Results from a tertiary hospital. *World J Gastrointest Endosc.* 2015 Jun 25;7(7):747-5.

Books and chapters

Atualização Terapêutica, 2012-2013, Artes Médica – several chapters in Gastroenterology Section

Atualização Terapêutica 2014-2015, Artes Médicas – several chapters in Gastroenterology Section.

Guias de Medicina Ambulatorial e Hospitalar da EPM-Unifesp – Hepatologia – Maria Lucia Ferraz, Janaina Narciso Schiavom e Antonio Eduardo Silva, editors, 2014 – several chapters from post-graduate students and ex-post-graduate students.

PhD Thesis (2015)

Student: Mayra de Almeida Paio. Title: Effect of supplementation with omega-3 or omega-6 enriched diet on cell death induced by kinins in ischemia-reperfusion of rat liver. Supervisor: Marcia Regina Nagaoka.

MSc Thesis (2015)

Student: Jardelina de Souza Todão Bernardino. Title: Molecular characterization of hepatitis C virus in chronic carriers from the states of Paraíba and Pernambuco, Brazil. Supervisor: Isabel Maria Vicente Guedes de Carvalho Mello.

Student: Suzana Lopes Yassunaga. Title: Assessment of food intake in patients with irritable bowel syndrome as an outpatient. Supervisor: Sender Jankiel Miszputen.

Student: Vivian Mota Guimarães. Title: Relationship of intestinal bacterial overgrowth and systemic endotoxemia with clinical, biochemical and histopathological parameters of nonalcoholic fatty liver disease without cirrhosis. Supervisor: Edison Roberto Parise.

Student: Vanessa Aparecida de Santis e Silva. Title: Nutritional Profile of Patients with Chronic Hepatitis C Genotype 1 Infection: Association With Histological Findings. Supervisor: Ivonete Sandra de Souza e Silva.

Student: Magali Angélica da Costa. Title: Evaluation of patient's satisfaction and socioeconomic profile of clients who attended the outpatient clinics of the Gastroenterology Division – Federal University of Sao Paulo. Supervisor: Maria Lucia Cardoso Gomes Ferraz.

International cooperations

Merieux Institute: institutional cooperation.

Harvard Medical School: cooperation with Dr. Carolina Pimentel (during PhD).

Service d'Hépatologie, Hôpital Beaujon (Assistance publique Hôpitaux de Paris) e Institut National de la Santé Et de la Recherche Médicale (INSERM U773-CRB3), Université Denis Diderot-Paris 7 (2008 2009): cooperação com Dr. Roberto José de Carvalho Filho.

Departamento de Medicina Hospital Universitário Rikshospitalet Oslo, Noruega.

Financial support

Fapesp, Capes, CNPq.

Facilities

Please see: <http://www2.unifesp.br/dmed/gastro/site/index.php/pos-graduacao/>

Other information

The Postgraduate Program in Gastroenterology has trained many students who are now professors in Federal Universities in Brazil, including Federal University of Rio de Janeiro, Federal University of Santa Catarina, Federal University of Maranhao, Federal University of Pernambuco, Federal University of Sergipe and Federal University of Amazonas.

Currently there are 45 students in our Master and PhD Programs.

Medicine (Obstetrics)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/obstetricia>; Facebook:ppg-obstetricia

Home page Sucupira

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Historical background

The Postgraduate Program in Obstetrics was founded in 1979, and is the only postgraduate Program in the country that focuses on Obstetrics. The Program is scored grade 5 by Capes. Research interests of Program members include maternal and perinatal health, especially prematurity, metabolic syndrome (pre-eclampsia, diabetes mellitus, obesity), and qualification of obstetric and fetal medicine, including assessment of fetal development and tracking and treatment of congenital anomalies. In an effort to reduce regional disparities in availability of scientific training, our Program welcomes students from all Brazilian states.

Research focus

1 – Repercussions of drugs in pregnancy: investigation of the action of drugs or other substances on maternal organs, placenta and fetus via bioassays using macroscopic morphological analysis, optical microscopy, immunohistochemistry and electron microscopy.

2 – Psychosocial and behavioral aspects of pregnancy: biopsychosocial aspects of the female condition during this stage of reproductive life and their interfaces with social, professional, and personal matters, including related personal conflicts.

3 – Clinical and metabolic repercussions of contraception: clinical and laboratory research related to contraceptive methods, including assessment of effectiveness and side effects.

4 – Maternal-fetal interaction and its relationship with obstetric pathologies: investigation of trophoblastic invasion and biomarkers resulting from this process using molecular and cell biology techniques, genetic polymorphisms and expression of mediators of inflammatory response and cell cycle regulation.

5 – Epidemiological, clinical and therapeutic investigation of obstetric and perinatal conditions: pathogenesis, epidemiology, treatment and prognosis of intercurrent conditions in pregnancy and their impact on reproductive success.

6 – Technological innovation and its incorporation in obstetric practice: impact of clinical interventions, technology and new diagnostic tests aimed at improving maternal and perinatal safety.

7 – Biophysical analysis of maternal-fetal interaction and repercussions in reproductive female tract and health fetal: using biophysical methods such as ultrasound, cardiotocography and Doppler, by themselves or together with biomarkers, to study maternal and fetal structures and adaptive mechanisms of pregnancy, including normal patterns and anomalies of this process.

Selected publications

Gueuvoghlian-Silva BY, Cordeiro FB, Lobo TF, Cataldi TR, Lo Turco EG, Bertolla RP, Mattar R, Torloni MR, Daher S. Lipid Fingerprinting in Mild versus Severe Forms of Gestational Diabetes Mellitus. *PLoS One*. 2015;10(12):e0144027.

Mattar R, Trainá E, Daher S. Limits in the immunological and genetical investigation of recurrent abortion. *Rev Bras Ginecol Obstet*. 2015;37(3):101-4.

Pendeloski KP, Mattar R, Torloni MR, Gomes CP, Alexandre SM, Daher S. Immunoregulatory molecules in patients with gestational diabetes mellitus. *Endocrine*. 2015;50(1):99-109.

Ribeiro MC, Nakamura MU, Torloni MR, Scanavino M de T, Forte BM, Mancini PE, Mattar R. Sleep quality in overweight pregnant women. *Rev Bras Ginecol Obstet*. 2015;37(8):359-65.

Vieira TC, de Souza E, da Silva I, Torloni MR, Ribeiro MC, Nakamura MU Dealing with female sexuality: training, attitude, and practice of obstetrics and gynecology residents from a developing country. *J Sex Med*. 2015;12(5):1154-7.

Ono E, dos Santos AM, Viana PO, Dinelli MI, Sass N, De Oliveira L, Goulart AL, de Moraes-Pinto MI. Immunophenotypic profile and increased risk of hospital admission for infection in infants born to female kidney transplant recipients. *Am J Transplant*. 2015;15(6):1654-65.

Barreto EQ, Araujo Júnior E, Martins WP, Rolo LC, Milani HJ, Nardoza LM, Moron AF. New technique for assessing fetal heart growth using three-dimensional ultrasonography: description of the technique and reference curves. *J Matern Fetal Neonatal Med*. 2015;28(9):1087-93.

Roberto FB, Facca TA, Sato JL, Sabino AR, Nishida SK, Mastroianni-Kirsztajn G, Sass N. Podocyturia in pregnant women with chronic hypertension may predict kidney injury? *Rev Bras Ginecol Obstet*. 2015;37(4):172-7.

Silva KP, Rocha LA, Leslie AT, Guinsburg R, Silva CM, Nardoza LM, Moron AF, Araujo Júnior E. Newborns with congenital heart diseases: epidemiological data from a single reference center in Brazil. *J Prenat Med*. 2014;8(1-2):11-6.

Korkes HA, Sass N, Moron AF, Câmara NO, Bonetti T, Cerdeira AS, Da Silva ID, De Oliveira L. Lipidomic assessment of plasma and placenta of women with early-onset preeclampsia. *PLoS One*. 2014;9(10):e110747.

Araujo Júnior E, Rolo LC, Rocha LA, Nardoza

LM, Moron AF. The value of 3D and 4D assessments of the fetal heart. *Int J Womens Health*. 2014;6:501-7.

Books and chapters

Sexualidade e depressão: gestantes com aborto espontâneo de repetição. Maria de Fátima Rezende Francisco, Rosiane Mattar, Mary Uchiyama Nakamura. Editora e Livraria Appris Ltda. 2014.

Obstetrícia. Nelson Sass, Leandro Gustavo de Oliveira. Grupo GEN – Guanabara Koogan, 2013.

Ultrassonografia 3D em Obstetrícia. Edward Araujo Junior, Luciano M. M. Nardoza, Antonio F. Moron. Editora Manole, 2011.

Grants

Fapesp – Fundação de Amparo à Pesquisa do Estado de São Paulo

1 – Advanced Laboratory of Three-Dimensional Ultrasound Surveys. From the Department of Obstetrics of the Federal University of São Paulo – Process 11 / 51281-4. Researcher responsible: Prof. Dr. Edward A. Junior.

2 – Markers of angiogenesis and Utero-placental velocimetry Doppler in patients with restricted fetal growth. Process: 11 / 22416. Researcher: Luciano Marcondes Machado Nardoza.

3 – Pre-eclampsia: Future risk of chronic kidney and cardiovascular disease. Process: 2014 / 00213-7. Lead researcher: Nelson Sass.

4 – Evaluations of immune cell profile in patients with gestational diabetes. Process: 2013 / 22574-7. Researcher: Silvia Daher.

5 – Inflammation mediators in Overweight pregnant women. Process: 2010 / 52547-5. Researcher: Profa. Dr. Silvia Daher.

6 – Evaluation of the role of galectin-1 in diabetes Mellitus Gestational. Process: 2011 / 14554-2.

Responsible researcher: Profa. Dr. Silvia Daher. CNPq Universal.

7 – Analysis of the composition of the oral, intestinal microbiota and its relation with gestational diabetes mellitus. Process 444174 / 2014-1. Researcher: Silvia Daher.

CNPQ and the Bill and Melinda Gates Foundation

Influence of the vaginal microbiome and vaginal Metabolites on cervical remodeling and preterm parturition. Researchers: Antonio F. Moron.

Mahle Institute (Germany)

Anthroposophy in maternal and perinatal health.
Research: Mary Uchiyama Nakamura.

PhD Thesis (2015)

Annibal Tagliaferri Sabino – Prognosis for Very Low Birth Weight Children, from The Neonatal Period to the Corrected age of Twenty four Months, Whose Mothers Were Diagnosed With Gestational Hypertensives Disorders. Supervisor: Nelson Sass.

Guilherme Antonio Rago Lobo – Prediction of pre-eclampsia from uterine artery Doppler, PAPP-A and PLGF at 11-14 weeks. Supervisor: David B. S. Pares.

Vera Lucia Lotufo Belardi Neto – The sense of motherhood in kidney transplantation pregnant women: a phenomenological approach. Supervisor: Nelson Sass.

Meireluci Costa Ribeiro – The impact of sleep quality, mood and sexual function on the quality of life of overweight pregnant women. Supervisor: Rosiane Mattar.

MSc Thesis (2015)

Felipe Favorette Campanharo The impact of cardiac diseases in cases of severe maternal morbidity. Supervisor: Rosiane Mattar.

Carolina Pacheco Silva – Assessment of myocardial performance index in fetuses with growth restriction. Supervisor: Luciano M. M. Nardoza.

Talita Micheletti Helfer – Reference ranges of fetal adrenal gland and fetal zone volumes between 24 and 37 weeks of gestation by three-dimensional ultrasound. Supervisor: Luciano M. M. Nardoza.

Eduardo Félix Martins Santana – Fetal heart rate monitoring during intrauterine open surgery for myelomeningocele repair. Supervisor: Antonio Fernandes Moron.

Nayana Alves de Brito Melo Okasaki – Hemodynamics Pattern of the ophthalmic artery in pregnant women with appropriate for gestational age fetuses and fetal growth restriction: Doppler Study. Supervisor: Luciano M. M. Nardoza.

International cooperations

A multicenter PIERS (Preeclampsia Integrated and Estimated Risk) project aimed at reducing the impact on personal, family and social life caused by maternal mortality and morbidity associated with preeclampsia in low- and middle-income countries. PI Peter Von Daldeszen (University British Columbia). Supervisor: Nelson Sass.

CHIPS (Control of Hypertension in Pregnancy Study) project whose main researcher is Laura Magee of the University of British Columbia (Vancouver – Canada), whose objective is to evaluate the impact of different antihypertensive treatment regimens in patients with chronic hypertension. Participation of professor Nelson Sass and student Henri Korkes.

Specialization in Obstetrics and Fetal Therapy. (Prof. Edward Araujo Junior). CNPq Grant: Leiden University, LEIDEN, The Netherlands. June to December 2015. Development of innovative minimally invasive methods for early second trimester coverage of the defect of fetal spina bifida. Supervisor: Dick Oepkes.

Internacional Exchange Program for PhD Students:

2013-2014. Henri Augusto Korkes. Capes Program PDS. Harvard University. Boston- USA. Supervisors: Leandro Gustavo de Oliveira / Ananth S. Karumanchi.

2014-2015. Camila Girardi Fachin. Capes Program PDS. Center for Fetal Research. Children Hospital. Philadelphia (USA). Supervisors: José Luiz Martins / Alan W. Flake.

Post-doctorate abroad:

Profa. Dr. Sue Yazaki Sun. Science without Borders Program 200756 / 2014-1 at Harvard Medical School under the supervision of Prof. Ross S. Berkowitz, from 01/10/2014 to 03/31/2015, focusing on gestational trophoblastic neoplasia.

Profa. Liliam Cristine Rato Paiato. Support Fapesp. Università degli Studi di Roma Tor Vergata, Rome, Italy. Visibility rate and Reference range for fetal papillary muscles area by means of four-dimensional ultrasonography using spatiotemporal image correlation (STIC rendering) and the applicability in congenital heart disease. Supervisor (Brazil): Edward Araujo Júnior / (Italy): Giuseppe Rizzo. In the period 2013-2014.

Short-Term Visits in International Centers Nelson Sass. Department of Obstetrics and Gynecology, Nara Medical University, Japan. September 2015. Prof. Hiroshi Kobayashi (Head Professor) and Katsuhiko Naruse.

Roseli Mieko Yamamoto Nomura. Visiting Professor Harris Birthright Research Center for Fetal Medicine, King's College Hospital (UK), december, 8-12, 2014.

Reception of research groups under leadership of Prof. Henk Groen – University of Gronigen (The Netherlands). Department: Epidemiology. 24 to 30/11/2015: Faculty involved: Nelson Sass, Antonio Fernandes Moron, Silvia Daher.

Prizes

1st place of the Roger Wroclawski 2014 Award, in the category *Surgical Medicine*. Albert Einstein. Israeli Institute of Education and Research. Tolerance of parturient to perineal extensibility assessed by EPI-NO. Observational study. Authors: Mary Uchiyama Nakamura, Nelson Sass, Julio Elito Junior, Carla Dellabarba Petricelli, Sandra Maria Alexandre, Edward Araujo Junior, Miriam Raquel Diniz Zanetti.

1st Place as the best work of Scientific Initiation of the XX Paulista Congress of Obstetrics and Gynecology. The effects of maternal dorsal decubitus on the fetal circulation. Silva KP, Nomura RMY. Annals of the XX Paulista Congress of Obstetrics and Gynecology. 2015. O-019.

Financial support

Fapesp; Capes; CNPQ; Bill and Melinda Gates Foundation; Mahle Foundation.

Facilities

Laboratories for Physiological and Experimental Obstetrics I and II. Both with physical area of approximately 40 m² have permanent material acquired with Fapesp projects and institutional technical reserve.

Laboratory of Functional Assessment of the Pelvic Floor located in the Specialties Unifesp Outpatient Clinic.

Center for Integrational Medicine and Anthroposophy Applied to Obstetrics located in the Specialties Outpatient Clinic.

Laboratory of Biofysic Evaluation and Image in Obstetrics located in Hospital São Paulo and Casa Domingos Delásio.

The physical structure, permanent and consumables were financed through funding from the Ministry of Health (Reforsus), Fapesp, Fapesp/Unifesp institutional technical reserve, Fetal Fundation and private companies.

Research Laboratory in Neonatal and Pediatric Surgery.

Other information

The Postgraduate Program in Obstetrics has produced more than 350 Master and PhD theses since 1979. Currently the Program has approximately 40 Master and PhD students, in addition to undergraduate students and 2 Post-Doctoral fellows.

Medicine (Gynecology)

PhD and MSc Degrees

Home page

<http://www.ppgginecologia.sites.unifesp.br>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1422

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Historical background

The Postgraduate Program in Gynecology was created in 1977. It was conceived and initially directed by Octaviano Alves de Lima Filho. In 1982 Prof. Dr. Klaus Rudolph Mirim became Program director and in 1985 José Focchi became director. The Program received accreditation from CFE in July 1981 and awarded its first Master and PhD degrees in 1983. During the early years the Program had just a few faculty and students. That changed in the mid 1980's when the Program was opened to students and faculty from other institutions. Professor Geraldo Rodrigues de Lima was instrumental in achieving this change. The increased number of students and faculty resulted in immediate expansion of research and learning, and allowed the development of specialized areas of study including endocrinology, mastology, urogynecology, ultrasound, endoscopy, oncology and human reproduction. Today, 39 years after its creation, the Postgraduate Program in Gynecology has awarded approximately 500 theses.

Research focus

- Clinical and experimental investigation of hormonal changes, using molecular genetic approaches
- Clinical and experimental investigation of infertility in women
- Assessment and critical analysis of new technologies in gynecology
- Molecular genetic and cellular evaluation in gynecology
- Biomarkers in gynecology
- Impact of physical activity on women
- Molecular and cellular genetics, including biomarkers, in breast diseases and genital neoplasms
- Quality of life and rehabilitation in patients with breast diseases and genital neoplasms.

Selected publications

Delroy CA, Castro R de A, Dias MM, Feldner PC Jr, Bortolini MA, Girão MJ, Sartori MG. The use of transvaginal synthetic mesh for anterior vaginal wall prolapse repair: A randomized controlled trial – International Urogynecology Journal 2013;24(11):1899-907

Andrade SS, Azevedo A de C, Monasterio IC, Paredes-Gamero EJ, Gonçalves GA, Bonetti TC, Albertoni G Schor E, Barreto JA, Luiza Oliva M, Juliano L, Girão MJ, da Silva. 7 beta-estradiol and steady-state concentrations of H₂O₂: Antiapoptotic effect in endometrial cells from patients with endometriosis. Free Radic Biol Med. 2013;60:63-72

Madeira M, Mattar A, Logullo AF, Soares FA, Gebrim LH. Estrogen receptor alpha/beta ratio and estrogen receptor beta as predictors of endocrine therapy responsiveness – A randomized neoadjuvant trial comparison between anastrozole and tamoxifen for the treatment of postmenopausal breast cancer. BMC Cancer. 2014;18:13:425. doi: 10.1186/1471-2407-13-425.

Djehdian LM, Araujo MP, Takano CC, Del-Roy CA, Sartori MG, Girão MJ, Castro RA. Transobtura-

tor sling compared with single-incision mini-sling for the treatment of stress urinary incontinence: A randomized controlled trial. *Obstet Gynecol.* 2014;123(3):553-61

Kamergorodsky G, Asanuma F, Amora PD, Schor E, Girão MJBC. Evaluation of pre- and post-operative symptoms in patients submitted to linear surgical endoscopy and other interventional techniques 2015; 29(8):2389-93.

Lemos N, Bichuetti DB, Marques RM et al. Laparoscopic implantation of neuromodulators for treating urinary dysfunctions and improving locomotion in multiple sclerosis patients. *International Urogynecology Journal* 2015; 26(12):1871-3

Lemos N, Marques RM, Kamergorodsky G, Ploger C, Schor E, Girão MJ. Vascular entrapment of the sciatic plexus causing catamenial sciatica and urinary symptoms. *Neurourology and Urodynamics. Int Urogynecol J.* 2016; Feb;27(2):317-9. doi: 10.1007/s00192-015-2777-7.

Books and chapters

Nazário, ACP; Elias,S; Facina, G; Araujo Neto, JT – *Conduitas em Mastologia.* 1 ed. Manole, 2016 v.1 690p.

Girão, MJBC; Sartori, MGF; Ribeiro RM; Castro, RA; Jarmy-Di Bella ZIK – *Tratado de Uroginecologia e disfunções de assoalho pélvico.* 1. ed. Manole, 2015. v. 1. 844p.

Girão, MJBC; Sartori, MGF; Nazário, ACP – *Conduitas em Ginecologia – Anticoncepção e Planejamento Familiar.* 1 ed. Atheneu, 2014 v. 4.

Sartori, MGF; Sun, SY – *Saúde da Mulher.* 1 ed. Elsevier, 2013 v. 1.

Girão, MJBC; Sartori, MGF; Nazário, ACP – *Conduitas em Ginecologia – Patologia do Trato Genital Inferior.* 1 ed. Atheneu, 2013 v. 1 129p.

Granado, MB; Sartori, MGF – *Manual do Residente de Ginecologia da EPM-Unifesp.* 1 ed. Roca, 2013. v. 4 129p

PhD Thesis (2015)

Luiza Torelli de Souza – Effectiveness of adding voluntary plevic floor muscle contraction to Pilates exercises program: An randomized controlled trial. Supervisor: Marair Gracio Ferreira Sartori.

Marcos Fernando de Lima Docema – Magnetic resonance imaging-guided occult breast lesion localization and simultaneous sentinel lymph node

mapping. Supervisor: Afonso Celso Pinto Nazário.

Ana Carolina Silva Chuery – P53 polymorphisms in women with and without HPV E6/E7 mRNA expression. Supervisor: Neila Maria Gois Speck.

Marcelo Cunio Machado Fonseca – Meta-analysis followed by indirect treatment comparison and cost-effectiveness model comparing uterine artery embolization. Supervisor: Manoel João Batista Castello Girão.

Mauricio Barbour Chehin – Assessment of insulin signaling pathways gene expression in granulosa cells from eutrophic and obese women with Polycystic Ovary Syndrome after in vitro fertilization cycles. Supervisor: Eduardo Leme Alves da Motta.

Nilciza Maria de Carvalho Tavares Calux – Evaluation of metabolites on epidermal growth factor receptor (EGFR) signaling pathway in predictive response to neoadjuvant chemotherapy with weekly paclitaxel in patients with breast cancer. Supervisor: Gil Facina.

Claudinei Alves Rodrigues – Trimendisonal ultrasonography of the pelvic floor after 3 years of correction of space urinary incontinence by retro-pubic, transobturator or single incision. Supervisor: Zsuzsanna Ilona Katalin de Jarmy.

Alexander Kopelman – Analysis of gene expression in the endocervical epithelium of women with deep endometriosis and healthy women. Supervisor: Eduardo Schor.

Roberta Foster Leonidas de Paiva – Evaluation of the inflammatory profile, oxidative stress and mood and anxiety states in field soccer players with and without premenstrual syndrome. Supervisor: Zsuzsanna Ilona Katalin de Jarmy.

Eloisa Aurora Auler Bitencourt – Application of molecular markers in X chromosome in human identification. Supervisor: Ismael Dale Cotrim Guerreiro da Silva.

Carolina Nigro Stella – Application of metabolomics for predicting neoadjuvant chemotherapy toxicity in stage III breast cancer patients. Supervisor: Ismael Dale Cotrim Guerreiro da Silva.

João Paulo Ferreira de Oliveira Kleine – Evaluation of methotrexate in women endometrial cells in culture with and without endometriosis. Supervisor: Ismael Dale Cotrim Guerreiro da Silva.

Gisele Negro de Lima – Expression of genes related to steroidogenesis in the ovary of rats submitted to melatonin supplementation. Supervisor: José Maria Soares Junior.

MSc Thesis (2015)

Tatiane Aparecida de Paula – Establishment and characterization of primary culture of vaginal tissue viability of the use of cell therapy in the treatment of patients with Mayer-Rokitansky-Küster-Hauser syndrome. Supervisor: Manoel João Batista Castello Girão.

Juliana Nishimura Bueno – Evaluation of Body Image, Quality of Life, Tactile Sensitivity and Pain in Women with Breast Cancer Submitted to Surgical Intervention. Supervisor: Afonso Celso Pinto Nazário.

Erika Knabben de Lima – Receptor Polymorphisms of Estrogen- α E Its Possible Association with Hormone Levels: Follicle-Stimulating (FSH), Luteinizing Hormone (LH) and Kupperman Menopausal Index in Postmenopausal Women. Supervisor: Ismael Dale Cotrim Guerreiro da Silva.

Daiene Carvalho Casagrande – Expression of the messenger RNA of human papillomavirus E6 and E7 oncoproteins in women with negative oncotic cytologies, squamous intraepithelial atypia of undetermined significance and low grade squamous intraepithelial neoplasia. Supervisor: Neila Maria Gois Speck.

Samantha Karlla Lopes de Almeida Rizzi – Incidence of the winged scapula and morbidity of the upper limbs of patients in the postoperative treatment of axillary breast cancer. Supervisor: Gil Faccina.

Andrea Yumi Watanabe – Knowledge of women assisted at a mastology outpatient clinic on self-examination, screening and risk factors for breast cancer. Supervisor: Afonso Celso Pinto Nazário.

International cooperations

Antoine- Béclère Hospital (University Hospital of the University of Paris- Sud XI), Clamart, France.

University of South Florida, United States.

Yale University, United States.

Northwestern University, United States.

University Toronto, Canada.

Catholic University of Leuven, KULEUVEN, Belgium.

Prizes

Professor José Aristodemo Pinotti, GBCS Goiania Breast Cancer Symposium (2016)

Professor Cláudio Kemp ao jovem pesquisador, GBCS Goiania Breast Cancer Symposium (2016)

Menção honrosa de temas de apresentação oral, GBCS Goiania Breast Cancer Symposium (2016)

Prêmio Antonio Franco Montoro – Menção Honrosa, Instituto Sírio-Libanês de Ensino e Pesquisa. (2016)

Segundo melhor poster comentado, GBCS Goiania Breast Cancer Symposium (2015)

Terceiro melhor poster comentado, GBCS Goiania Breast Cancer Symposium (2014)

Professor José Aristodemo Pinotti, GBCS Goiania Breast Cancer Symposium (2014)

Professor Carlos Inácio de Paula, GBCS Goiania Breast Cancer Symposium (2014)

Professor Cláudio Kemp ao jovem pesquisador, GBCS Goiania Breast Cancer Symposium (2014)

Menção honrosa do Prêmio Antonio Franco Montoro, Hospital Sírio-Libanês. (2013)

Prêmio 3º lugar no I Congresso Paulista de Fisioterapia em Oncologia, Associação Brasileira de Fisioterapia em Oncologia (2013)

Patents

International Application Status Report.

Received at International Bureau: 07 October 2015.

(10) Publication Number: WO2016/038157.

(21) Application Number: PCT/EP2015/070752.

(31) Priority Number (s): 14184200.

(43) Publication date: 17 March 2016 (17.03.2016).

Financial support

Capes, Fapesp, CNPQ.

Facilities

Experimental and Molecular Gynecology Laboratory (molecular biology, cell culture and proteomics).

Laboratory of Cell Biology and Histomorphometry.

Laboratory of Gynecological Endocrinology (hormonal and biochemical dosages).

Electron Microscopy Center (transmission and scanning microscopy).

Cell Culture Laboratory.

Viral Vector Cloning Lab with the CTC Mol/Unifesp.

Cell Therapy Laboratory (with security level 2 culture room).

In addition, the institution has a Vivarium to house experimental animals, including genetically modified animals.

Other information

We are pleased to announce the development of a course focused on molecular and cellular biology in Gynecology. This course integrates basic and clinical research in the area, and will give participants the background they need to be able to pursue development of new therapies and treatments for gynecological diseases.

Medicine (Hematology)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/hematologiaeoncologia> &
www.oncologia.sites.unifesp.br/site

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1423

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Historical background

The Postgraduate Program in Medicine (Hematology) was founded 38 years ago. The primary goal of the Program is to increase knowledge and understanding of Hematology and Oncology through the training of professionals to work as teachers and researchers at Unifesp and other Brazilian universities.

Research focus

Acquired and hereditary anemias – Investigation of mechanisms leading to different forms of anemia with the goal of reducing their incidence and complications.

Minerals and vitamins involved in erythropoiesis – Study of the relationship between minerals/

vitamins and erythropoiesis in anemia and other diseases such as hereditary hemochromatosis.

Blood cell antigens and antibodies – Determination of the phenotypic and genotypic prevalence of erythrocyte, granulocyte and platelet antigens; investigation of the role of blood cell antigens and antibodies in clinical syndromes and transfusion reactions.

Chronic Lymphoproliferative Disease – Characterization of clinical, immunophenotypic, cytogenetic, and molecular aspects of chronic lymphoproliferative diseases including CLL, Hodgkin's disease, non-Hodgkin lymphoma, lymphomas associated with HTLV, and multiple myeloma.

Clinical, cellular, and molecular studies in oncological diseases – Evaluation of clinical characteristics of oncological and hematological diseases and identification of cellular and/or molecular changes in these tumors.

Etiological study of thrombotic diseases – Investigation of causes involved in the development of thrombotic disorders through epidemiological studies.

Acute Leukemias, myeloproliferative neoplasms and myelodysplastic syndromes – Study of clinical manifestations, morphological changes, immunophenotyping analysis, cytogenetic characterization, and molecular abnormalities in these diseases.

Cell therapy in oncologic and hematologic diseases – Correlation of clinical outcomes of different types of hematopoietic stem cell transplantation and biological markers of prognosis, minimum residual disease, graft versus host disease, and immune reconstitution post-transplant.

Selected publications

Arruda MM, Mecabo G, Rodrigues CA, Matsuda SS, Rabelo IB, Figueiredo MS. Antioxidant vitamins C and E supplementation increases markers of haemolysis in sickle cell anaemia patients: a randomized, double-blind, placebo-controlled trial. *Br J*

Haematol. 2013 Mar; 160(5):688-700. doi: 10.1111/bjh.12185. PubMed PMID: 23278176.

Almeida CA, Dreyfuss JL, Azevedo-Shimmoto MM, Figueiredo MS, de Oliveira JS. Evaluation of 16 SNPs allele-specific to quantify post hSCT chimerism by SYBR green-based qRT-PCR. *J Clin Pathol*. 2013 Mar; 66(3):238-42. doi: 10.1136/jclinpath-2012-201224. PubMed PMID: 23288918.

Rego EM, Kim HT, Ruiz-Argüelles GJ, Undurraga MS, Uriarte Mdel R, Jacomo RH, Gutiérrez-Aguirre H, Melo RA, Bittencourt R, Pasquini R, Pagnano K, Fagundes EM, Chauffaille Mde L, Chiattoni CS, Martinez L, Meillón LA, Gómez-Almaguer D, Kwaan HC, Garcés-Eisele J, Gallagher R, Niemeyer CM, Schrier SL, Tallman M, Grimwade D, Ganser A, Berliner N, Ribeiro RC, Lo-Coco F, Löwenberg B, Sanz MA. Improving acute promyelocytic leukemia (APL) outcome in developing countries through networking, results of the International Consortium on APL. *Blood*. 2013 Mar 14; 121(11):1935-43. doi: 10.1182/blood-2012-08-449918. PubMed PMID: 23319575.

Menezes LC, Rocchetti TT, Bauab K de C, Cappellano P, Quiles MG, Carlesse F, de Oliveira JS, Pig-natari AC. Diagnosis by real-time polymerase chain reaction of pathogens and antimicrobial resistance genes in bone marrow transplant patients with bloodstream infections. *BMC Infect Dis*. 2013 Apr 5; 13:166. doi:10.1186/1471-2334-13-166. PubMed PMID: 23560388.

Sandes AF, Kerbaux DM, Matarraz S, Chauffaille Mde L, López A, Orfao A, Yamamoto M. Combined flow cytometric assessment of CD45, HLA-DR, CD34, and CD117 expression is a useful approach for reliable quantification of blast cells in myelodysplastic syndromes. *Cytometry B Clin Cytom*. 2013 May; 84(3):157-66. doi: 10.1002/cyto.b.21087. PubMed PMID: 23475532

Andrade TA, Evangelista AF, Campos AH, Poles WA, Borges NM, Camillo CM, Soares FA, Vassallo J, Paes RP, Zerbini MC, Scapulatempo C, Alves AC, Young KH, Colleoni GW. A microRNA signature profile in EBV+ diffuse large B-cell lymphoma of the elderly. *Oncotarget*. 2014 Dec 15; 5(23):11813-26. PubMed PMID: 25544772.

Rodrigues CA, Rocha V, Dreger P, Brunstein C, Sengeloeh H, Finke J, Mohty M, Rio B, Petersen E, Guilhot F, Niederwieser D, Cornelissen JJ, Jindra P, Nagler A, Fegueux N, Schoemans H, Robinson S, Ruggeri A, Gluckman E, Canals C, Sureda A; Eurocord-Netcord and the Lymphoma Working Party; Chronic Leukemia Working Party of the

European Group for Blood and Marrow Transplantation. Alternative donor hematopoietic stem cell transplantation for mature lymphoid malignancies after reduced-intensity conditioning regimen: similar outcomes with umbilical cord blood and unrelated donor peripheral blood. *Haematologica*. 2014 Feb; 99(2):370-7. doi: 10.3324/haematol.2013.088997. PubMed PMID: 23935024.

Lopes LB, Baleotti W Jr, Suzuki RB, Fabron A Jr, Chiba AK, Vieira-Filho JP, de Souza Castro B, Mido-ri Kunioshi A, Bordin JO. HNA-3 gene frequencies in Brazilians and a new polymerase chain reaction-restriction fragment length polymorphism method for HNA-3a/3b genotyping. *Transfusion*. 2014 Jun; 54(6):1619-21. doi: 10.1111/trf.12493. PubMed PMID: 24236643.

Bethge WA, Kerbaux FR, Santos EB, Gooley T, Storb R, Sandmaier BM. Extracorporeal photopheresis combined with pentostatin in the conditioning regimen for canine hematopoietic cell transplantation does not prevent GVHD. *Bone Marrow Transplant*. 2014 Sep; 49(9):1198-204. doi: 10.1038/bmt.2014.137. PubMed PMID: 25046213.

Braga WM, da Silva BR, de Carvalho AC, Mae-kawa YH, Bortoluzzo AB, Rizzatti EG, Atanackovic D, Colleoni GW. FOXP3 and CTLA4 overexpression in multiple myeloma bone marrow as a sign of accumulation of CD4(+) T regulatory cells. *Cancer Immunol Immunother*. 2014 Nov; 63(11):1189-97. doi: 10.1007/s00262-014-1589-9. PubMed PMID: 25099367.

Mecabo G, Yamamoto M, Biassi TP, Figueiredo MS. Lactate dehydrogenase isoenzyme 3 and hemolysis in sickle cell anemia: a possible correlation? *Blood*. 2015 Jun 11; 125(24):3821-2. doi: 10.1182/blood-2015-04-641522. PubMed PMID: 26069337.

da Silva PB, Perini GF, Pereira L de A, Sacconato EM, Penna AM, Garibaldi J, Cavalcante E, Baiocchi OC. Imbalance of Pro- and Anti-Inflammatory Cytokines in Patients With cHL Persists Despite Treatment Compared With Control Subjects. *Clin Lymphoma Myeloma Leuk*. 2015 Jun; 15 Suppl:S151-7. doi: 10.1016/j.clml.2015.02.002. PubMed PMID: 26297269.

Gonçalves MV, Yamamoto M, Kimura EY, Col-turato VA, de Souza MP, Mauad M, Ikoma MV, Novis Y, Rocha V, Ginani VC, Wanderley de Oliveira Felix OM, Seber A, Kerbaux FR, Hamerschlak N, Orfao A, Rodrigues CA. Low Counts of Plasmacytoid Dendritic Cells after Engraftment Are Associated with High Early Mortality after Allogeneic Stem Cell Transplantation. *Biol Blood Marrow*

Transplant. 2015 Jul; 21(7):1223-9. doi: 10.1016/j.bbmt.2015.03.010. PubMed PMID: 25792371.

Nunes DP, Lima LT, Chauffaille Mde L, Mitne-Neto M, Santos MT, Cliquet MG, Guerra-Shinohara EM. CALR mutations screening in wild type JAK2(V617F) and MPL(W515K/L) Brazilian myeloproliferative neoplasm patients. *Blood Cells Mol Dis.* 2015 Oct; 55(3):236-40. doi: 10.1016/j.bbmt.2015.07.005. PubMed PMID: 26227853.

Lucena-Araujo AR, Kim HT, Thomé C, Jacomo RH, Melo RA, Bittencourt R, Pasquini R, Pagnano K, Glória AB, Chauffaille Mde L, Athayde M, Chiattoni CS, Mito I, Bendlin R, Souza C, Bortolheiro C, Coelho-Silva JL, Schrier SL, Tallman MS, Grimwade D, Ganser A, Berliner N, Ribeiro RC, Lo-Coco F, Löwenberg B, Sanz MA, Rego EM. High $\Delta Np73/TAp73$ ratio is associated with poor prognosis in acute promyelocytic leukemia. *Blood.* 2015 Nov 12; 126(20):2302-6. doi: 10.1182/blood-2015-01-623330. PubMed PMID: 26429976.

Books and chapters

Maria de Lourdes Lopes Ferrari Chauffaille, Mihoko Yamamoto. Classificação das Leucemias Agudas. Citologia, Citoquímica, Imunofenotipagem, Citogenética e Genética Molecular. In: Tratado de Hematologia. 2nd edição. Zago MA; Falcão RP, Pasquini R. (Org.) 2013.

Otávio Cesar Carvalho Guimarães Baiocchi. Guia de Bolso de Hematologia (Org). 2014.

Camila Siqueira Silva, Elvira Guerra-Shinohara. Cobalamina (Vitamina B12). In: As vitaminas e suas interações com o genoma humano. Helio Vannuchi; Camila Siqueira Silva. (Org) 2014.

Maria Stella Figueiredo. Hemoglobinopatias. In: Clínica Médica. Diagnóstico e tratamento. Antonio Carlos Lopes (org). 2014.

Melca Maria Oliveira Barros, José Orlando Bordin. Anemia Hemolítica Autoimune. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Mihoko Yamamoto, Celso Arrais Rodrigues da Silva. Leucemia Linfocítica Crônica. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Celso Arrais, Iara B. Rabelo, Paulo G. Alvarenga. Hipoplasias Medulares. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Dayse M. Lourenço, Vânia M. Morelli. Coagulopatias Adquiridas. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

José Salvador R. de Oliveira. Transplante de células-tronco hematopoéticas. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Maria de Lourdes Chauffaille, Luís Arthur Peloso. Síndromes Mielodisplásicas. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Walter M. T. Braga, Gisele W. B. Colleoni. Mieloma Múltiplo. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Otávio Baiocchi. Linfoma de Hodgkin. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Riguel Inaoka, Gisele W. B. Colleoni. Linfomas não Hodgkin. In: Atualização Terapêutica de Prado, Ramos e Valle. 2014/15. Durval Rosa Borges, Arnaldo Lopes Colombo, Luiz Roberto Ramos, Lydia Masako Ferreira, Ruth Guinsburg (Org.).

Grants

Fapesp: Tematic Project Research Grant. Process: 10/17668-6. Coordinator: Gisele Colleoni. Principal Investigators: Gisele Colleoni, Mihoko Yamamoto.

Fapesp: Research Project Grant. Process: 12/16864-1 From: June 01, 2013 to May 31, 2015 Coordinator: Otávio Cesar Carvalho Guimarães Baiocchi.

Fapesp: Research Project Grant. Process: 13/12161-9 From: October 01, 2013 to September 30, 2015 Coordinator: Maria Stella Figueiredo.

Fapesp: Research Project Grant. Process: 13/13804-0 From December 01, 2013 to December

30, 2015. Coordinator: Vânia Maris Morelli (sabbatical) / Maria Stella Figueiredo.

CNPq. Edital Universal 14/2013 Period: 36 Months, Coordinator: Maria Stella Figueiredo.

CNPq. Edital Universal 14/2013 Period: 36 Months, Coordinator: José Orlando Bordin A.

Capes: Edital Nº 054/2010. Research and development project focused on the National Postdoctoral Program in Health. – PÓS-DOC SUS. From: May 2011 to April 2015. Supervisor: Maria Stella Figueiredo.

PhD Thesis (2015)

Grazielle Mecabo. Biomarkers of Hemolysis in Sick Cell Patients. Supervisor: Maria Stella Figueiredo.

Emilia Carolina Oliveira Brandão Malafaia. The Role of TWIST1 Gene Expression and Hypoxic Microenvironment in Acute Myeloid Leukemia. Supervisor: Daniella Marcia Bahia Kerbauy.

Aline dos Santos Borgo Perazzio. Relationship of regulatory T cells and expression of the IRF-1 gene with pathogenesis and autoimmune phenomena in myelodysplastic syndromes: Prospective and sequential evaluation. Supervisor: Maria de Lourdes Chauffaille.

MSc Thesis (2015)

Carlos Alberto Grillo. Monoclonal antibody G12f2 assessment in the murine melanoma B16f10 immunohistochemical reaction. Supervisor: José Daniel Lopes.

Adriana Ramos de Oliveira. Determination of plasma lipid metabolomic profile, for Mass Spectrometry in patients with neoplasms Myeloproliferative Chronic, Myelodysplastic Syndromes and Acute Myeloid Leukemia. Supervisor: Maria de Lourdes Chauffaille.

Maylla Rodrigues Lucena. Effect of genetic polymorphisms on folic acid metabolism and its relationship with folate, vitamin B12 and total homocysteine concentrations in subjects undergoing folic acid fortification and / or therapy. Supervisor: Elvira Maria Guerra Shinohara.

Luana Joyce da Silva. Functional study of DUSP1 gene in osteosarcoma cell lines. Supervisor: Silvia Regina Caminada de Toledo.

International cooperations

Vânia Maris Morelli: Leiden University Medical Center (LUMC), Netherlands (Suzanne C. Canne-gieter, Willem M. Lijfering and Frits R. Rosendaal).

Gisele Colleoni: Brussels Branch, Ludwig Institute for Cancer research: Dr. Laurent Knoops and Dr. Jean-Christophe Renault; Center Hamburg-Eppendorf (Dr. Djordje Atanackovic); Vrije Universiteit Brussel em Bruxelas (Dr. Kris Thielemans and Dr. Rik Schots); Ken H. Young – MD Anderson Cancer center.

Maria De Lourdes Chauffaille: International Consortium of Acute Promyelocytic Leukemia, IC-APL, American Society of Hematology; Dr. Jeremy Squire, Toronto University.

Mihoko Yamamoto: Dr. Guillermo Dighiero – Instituto Pasteur, Montevideo, Uruguai; Prof Alberto Órfão – Servicio de Citometria y Centro de Investigación del Cancer, Universidade de Salamanca, Espanha.

Maria Stella Figueiredo: Prof. Martin H. Steinberg, Boston University; Dra. Vivien Sheehan, Baylor College of Medicine, Texas, USA.

José Orlando Bordin: Prof. Morris A. Blajchman, McMaster University, Hamilton (CA); Prof. Michael Busch, Irwin Memorial Blood Center, San Francisco (EUA).

José Salvador De Oliveira: Fred-Hutchinson Cancer Research Center em Seattle, EUA (H.J. Deeg, Rainer Storb and Mary D. Flowers).

Daniella Kerbauy: Prof. Dr. Joachim Deeg, Fred-Hutchinson Cancer Research Center, Seattle, EUA.

Otávio Baiocchi: Dr. Andrea Gallamini (Italy); Dr. Peter Borchman (German).

Celso Arrais: Eurocord (Dr. Eliane Gluckman); Lymphoma Working Party do European Blood and Marrow Transplantation Group (Dr. Peter Dreger, Dr. Anna Sureda); McMaster University Hamilton – Canadá (Dr. Mark Crowther); Servicio de Citometria y Centro de Investigación del Cáncer, Universidade de Salamanca, Espanha (Dr. Alberto Órfão); Anna Schuh, Oxford University.

Prizes

Gisele Colleoni – 4th Latin America Novartis Oncology Scientific Award - Hematology Category, Novartis. 2011.

Gisele Colleoni – 3rd Latin America Novartis Oncology Award, Novartis. 2009.

Gisele Colleoni – Capes Thesis Prize – honorable mention, 2011.

Patents

Gisele Colleoni, 2010. PATENT – NPI 0000221000371497, Unifesp.

Gisele Colleoni, 2010. PATENT – NPI 0000221000371306, Unifesp.

Financial support

Fapesp, Capes, CNPq.

Facilities

Viral Oncology Laboratory.

Immunohematology Laboratory.

Molecular Biology Laboratory – Polymerase Chain Reaction (PCR) and real-time PCR.

Anemia Research – HPLC for identification of abnormal hemoglobins (D10 BioRad).

Leukocyte Research – Luminex machine (DEFFF)

Cell Biology Laboratory and Flow Cytometry – two flow cytometers.

Cytogenetics Laboratory – comparative genomic hybridization (CGH), fluorescence in situ hybridization (FISH) classical or multiple (M-FISH), and comparative genomic hybridization to arrays (CGHa).

Laboratory of Hemostasis and Thrombosis – coagulometric tests, chromogenic and enzyme immunoassays with a high degree of automation (Sysmex®), microplate reader with a wavelength range from 340nm to 850nm (VersaMax, Molecular Device), microplate washer (SkanWasher 400, molecular Device), and aggregometer (Chrono-log).

Medicine (Nephrology)

PhD and MSc Degrees

Home page

<http://nefro.epm.br/pg1.htm>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1424

Coordinator

Mirian Aparecida Boim

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Botucatu St, 591 – 15º – 153 Room
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Historical background

The Postgraduate Program in Nephrology was created and accredited by the MEC for Masters and PhD in 1973. It was the first regulated nephrology Program in Brazil. Since then much important research has come out of the Program, and it has become one of the most prestigious centers in the country for training researchers. In the first 20 years of its history, the Program awarded Masters and Doctors in medicine degrees not only to fellows from São Paulo but also those from medical schools and universities throughout the five regions of the country, contributing to implementation of medical research in those universities. From 1992, driven by the need to incorporate new technologies such as cell and molecular biology, the Program began to attract professionals trained in other related fields such as biomedicine, biology, nursing, pharmacy, biochemistry, physiotherapy, etc. Thus, physicians

and non-physicians fellows were awarded Masters or Doctors in Clinical or Basic Nephrology respectively, according to their undergraduate course. However, since 2004 all graduates of the Program have received the title of Master or Doctor in Science. In 1978, the Program was evaluated for the first time by Capes, the agency responsible for managing and evaluating graduate Programs in Brazil, and received a score of 4. We improved our score to 6 after creating professional management mechanisms to monitor activities developed by researchers and fellow students. In the following two evaluation periods, given our recognized capacity in training human resources, high quality scientific production and extensive interactions with other researchers, proven by many scientific collaborations with research institutions around the world, exchange of students and participation of researchers as speakers in international events, we achieved a score of 7, the highest score awarded by Capes. We have maintained that score since then.

Our Program aims to train students, researchers and teachers at a level of excellence in the field of clinical and experimental nephrology. The Program also aims to develop clinical and experimental research that contributes to the advancement of science in order to better understand the pathophysiological mechanisms of kidney diseases and their consequences to the organism, as well as the development of therapeutic strategies, improving the quality of life of patients.

Research focus

Glomerulopathies

Tubulopathies

Chronic and acute kidney disease / uremia

Hypertension,

Renal lithiasis

Polycystic kidney disease

Renal transplantation

Selected publications

Luiz R da S, Silva KA, Rampaso RR, Antônio EL, dos Santos L, Moura L, Tucci PJ, de Abreu NP, Schor N. Exercise attenuates renal dysfunction with preservation of myocardial function in chronic kidney disease. *PLoS One*. 2013;8(2):e55363.

Bonato FO, Lemos MM, Cassiolato JL, Canziani ME. Prevalence of ventricular arrhythmia and its associated factors in nondialyzed chronic kidney disease patients. *PLoS One*. 2013 Jun 7;8(6):e66036.

Borges FT, Melo SA, Özdemir BC, Kato N, Revuelta I, Miller CA, Gattone VH 2nd, LeBleu VS, Kalluri R. TGF-1-containing exosomes from injured epithelial cells activate fibroblasts to initiate tissue regenerative responses and fibrosis. *J Am Soc Nephrol*. 2013 Feb;24(3):385-92.

Alves da Silva A, Pacheco-Silva A, de Sesso R, Silva LS, Carvalho VP, Nery Costa CH. The risk factors for and effects of visceral leishmaniasis in graft and renal transplant recipients. *Transplantation*. 2013 Mar 15;95(5):721-7.

Klein R, Galante NZ, de Sandes-Freitas TV, de Franco MF, Tedesco-Silva H, Medina-Pestana JO. Transplantation with kidneys retrieved from deceased donors with acute renal failure. *Transplantation*. 2013 Feb 27;95(4):611-6.

Inda-Filho AJ, Caixeta A, Manggini M, Schor N. Do intravenous N-acetylcysteine and sodium bicarbonate prevent high osmolal contrast-induced acute kidney injury? A randomized controlled trial. *PLoS One*. 2014 Sep 25;9(9):e107602.

Reinecke NL, Cunha TM, Heilberg IP, Higa EM, Nishiura JL, Neder JA, Almeida WS, Schor N. Exercise capacity in polycystic kidney disease. *Am J Kidney Dis*. 2014 Aug;64(2):239-46.

Gattai PP, Mafra FF, Wasinski F, Almeida SS, Cenedeze MA, Malheiros DM, Bacurau RF, Barros CC, Câmara NO, Araújo RC. Kinin B2 receptor does not exert renoprotective effects on mice with glycerol-induced rhabdomyolysis. *World J Nephrol*. 2014 Aug 6;3(3):85-91.

Rangel M, dos Santos JC, Jasiulionis MG, Araújo RC, Ierardi DF, Franco M do C. Modification of epigenetic patterns in low birth weight children: importance of hypomethylation of the ACE gene promoter. *PLoS One*. 2014 Aug 29;9(8):e106138.

Rodrigues AM, Bergamaschi CT, Fernandes MJ, Paredes-Gamero EJ, Buri MV, Ferreira AT, Araújo SR, Punaro GR, Maciel FR, Nogueira GB, Higa EM. P2X(7) receptor in the kidneys of diabetic rats sub-

mitted to aerobic training or to N-acetylcysteine supplementation [corrected]. *PLoS One*. 2014 Jun 18;9(6):e97452.

NCD Risk Factor Collaboration (NCD-RisC). Effects of diabetes definition on global surveillance of diabetes prevalence and diagnosis: a pooled analysis of 96 population-based studies with 331,288 participants. *Lancet Diabetes Endocrinol*. 2015 Aug;3(8):624-37.

Andrade-Oliveira V, Amano MT, Correa-Costa M, Castoldi A, Felizardo RJ, de Almeida DC, Hiyane MI, Rodas AC, Peron JP, Aguiar CF, Reis MA, Ribeiro WR, Valduga CJ, Curi R, Vinolo MA, Ferreira CM, Câmara NO. Gut Bacteria Products Prevent AKI Induced by Ischemia-Reperfusion. *J Am Soc Nephrol*. 2015 Aug;26(8):1877-88.

Silva KA, Dong J, Dong Y, Dong Y, Schor N, Tweardy DJ, Zhang L, Mitch WE. Inhibition of Stat3 activation suppresses caspase-3 and the ubiquitin-proteasome system, leading to preservation of muscle mass in cancer cachexia. *J Biol Chem*. 2015 Apr 24;290(17):11177-87.

Baia LC, Heilberg IP, Navis G, de Borst MH; NIGRAM investigators. Phosphate and FGF-23 homeostasis after kidney transplantation. *Nat Rev Nephrol*. 2015 Nov;11(11):656-66.

Tedesco-Silva H, Felipe C, Sandes-Freitas T, Campos E, Gerbase de Lima M, Medina-Pestana. Reduced Incidence of Cytomegalovirus Infection in Kidney Transplant Recipients Receiving Everolimus and Reduced Tacrolimus Doses. *J. Am J Transplant*. 2015 Oct;15(10):2655-64.

Books and chapters

Professor Nestor Schor is editor of an important collection of books, the Ambulatory Medical Guides, in partnership with Editora Manole, which already has more than 40 titles, some of them already in the 3rd edition.

Professor Gianna Mastroianni Kirsztajn is one of the editors of the Current Issues in Nephrology in their last four editions, the last in 2015.

Renal Research and Therapy calculation. Eds. Ita Pfeferman Heilberg, Nestor Schor. Publisher Balieiro. 640p.

Lithiasis Renal: Practical Guide – Daily Use: Out-patient And Hospital. Eds. Ita Pfeferman Heilberg, Nestor Schor. Publisher Balieiro. 266p.

Grants

Researchers are encouraged to seek funding for their projects from Brazilian institutions and from institutions abroad, providing optimal conditions for the full development of research projects. We currently have two thematic and many regular projects funded by the Fundação de Amparo a Pesquisa do Estado de São Paulo (Fapesp). Other federal funding agencies include Capes, CNPq and Finep. The total value of funded projects coordinated by principal investigators in the Nephrology program is approximately R\$ 10,000,000.00. In addition to research funding, most of the students are supported by grants from the main institutions Fapesp, Capes and CNPq.

PhD Thesis (2015)

Ana Paula Fernandes da Silva Monteiro – Antagonist of bradykinin B1 receptor inhibit cisplatin-induced nephrotoxicity in a murine melanoma model. Supervisor: Alexandre de Castro Keller.

Renata Meca Gaspar – Caffeine effects on the progression of polycystic kidney disease model mice deficient in Pkd1. Supervisor: Ita Pfeferman Heilberg.

Joelma Santana Christo – Effect of mesenchymal stem cells and their conditioned medium in acute kidney injury induced by sepsis and the acyclovir. Supervisor: Nestor Schor.

Jose Tarcisio Giffoni de Carvalho Junior – Effect of vitamin D in the modulation of Toll-like receptors expression (TLR-7 and TLR-9) expression of IL-6 and IFN- γ ; B and T lymphocytes in uremia. Supervisor: Maria Aparecida Dalboni.

Clevia Dos Santos Passos – Evaluation of the role of the pathway of tryptophan and aerobic exercise on the hypotensive effect of birdseed (*phalaris canariensis*) in spontaneously hypertensive rats. Supervisor: Mirian Aparecida Boim.

Alze Pereira dos Santos Tavares – Impact of LDL changes in the outcomes of conservative treatment in DRC. Supervisor: Niels Olsen Saraiva Câmara.

Marcia Bastos Convento – Induction of mesenchymal epithelial transition (MET) by oxalate ion (NOx) and calcium oxalate (CaOx) in vitro, in kidney cells and in vivo. Effect of BMP-7. Supervisor: Fernanda Teixeira Borges.

Karen Foguer – Phenotypic and functional characterization of macrophages derived from metastatic renal carcinoma after gene therapy with endostatin. Supervisor: Maria Helena Bellini.

Frederick Wasinski – Physical training during pregnancy and modulation of metabolic variables in offspring submitted to diet hyperlipidemic. Supervisor: Ronaldo de Araújo Carvalho.

Taina Veras de Sandes Freitas – Protocol biopsies evaluation of renal allograft in low immunological risk patients receiving immunosuppressive regimen based on tacrolimus with sirolimus conversion planned for three months after transplantation. Supervisor: José Osmar Medina de Abreu Pestana.

Luciana Guilhermino Pereira – Role of angiotensin II in the gene expression of the receptor (pro) renin in mesangial cells in culture. Supervisor: Mirian Aparecida Boim.

Marina de Souza Braga – Study of the regulation of NF- κ B in metastatic renal carcinoma after gene therapy with endostatin. Supervisor: Maria Helena Bellini.

MSc Thesis (2015)

Marisa Cristiane Cardoso de Oliveira – Anemia in patients undergoing ambulatory peritoneal dialysis: prevalence and associated factors. Supervisor: Maria Eugênia Fernandes Canziani.

Hugo Nobrega da Rocha Filho – Evaluation of the role of immobilized endostatin and regulation of NF- κ B in HK-2 cells subjected to injury by oxidative stress. Supervisor: Maria Helena Bellini.

Franciana Aguiar Azedo – Epidemiological evaluation of hospital patients in the state public server São Paulo (HSPE-sp) with acute renal failure and chronic renal failure worsened. Supervisor: Nestor Schor.

Michel Kendy de Souza – Effects of oral supplementation of L-arginine in rats with chronic renal failure submitted to strength training. Supervisor: Alvaro Pacheco e Silva Filho.

Pedro Guilherme Coelho Hannun – Efficacy and safety elective conversion sotroasturina to tacrolimus or mycophenolate sodium in stable renal transplant recipients. Supervisor: José Osmar Medina de Abreu Pestana.

Amandda Rakel Peixoto dos Santos – Effectiveness of paricalcitol therapy in Chronic Experimental Renal Disease Model. Supervisor: Alvaro Pacheco e Silva Filho.

Saurus Mayer Coutinho – The influence of genetic polymorphism of IFN- γ in the occurrence of cardiovascular events in patients with hypertension. Supervisor: Marcelo Costa Batista.

Paula Ferreira Orlandi – Long-term outcome of kidney transplantation in the elderly. Supervisor: José Osmar Medina de Abreu Pestana.

Marcello Finardi Peixoto – Influence of treatment with escitalopram, depression and sleep quality in hypertension mild to moderate. Supervisor: Agostinho Tavares.

Kellen Hyde Elias Pinheiro – Morbidity and mortality in patients with septic kidney injury admitted to the intensive care unit (ICU). Supervisor: Nestor Schor.

Juan Sebastian Henao Agudelo – Immunoregulatory role of microvesicles derived from mesenchymal stem cells in the polarization of macrophages. Supervisor: Alvaro Pacheco e Silva Filho.

Ilsón Jorge Iizuka – Removal of inflammatory mediators by hemofiltration in patients with acute kidney injury. Supervisor: Marcelo Costa Batista.

Marcela Portugal De Alencar Ribeiro – kidney transplant in sensitized patients: analysis of risks and benefits. Supervisor: José Osmar Medina de Abreu Pestana.

Juliana Busato Mansur – Research Podocitúria How Activity marker in Lupus Nephritis. Supervisor: Gianna Mastroianni Kirsztajn.

International cooperations

Broad Institute, Harvard Medical School, Boston, EUA. Prof. Winfred Willians.

Departament of Lipids, New England Medical Center – USA. Ernest Schaefer.

Departamento de Fisiologia da Pontifícia Universidade Católica do Chile. Carlos Vio.

Hypertension and Artherosclerosis Department of Boston University. Prof. Haralambus Gavras.

Departments of Pediatrics and Medicine (Nephrology-Hypertension), University of California, San Diego, EUA. Prof. Sanjay Nigan.

Division of Immunology, Beth Israel Deaconess Medical Center, Harvard Medical Scholl. Prof. Terry Strom.

Division of Pediatric Nephrology, Louisiana State University Health Sciences Center. Profa. Flavia Fernandes Jung.

Institut National de la Sante et Recherche Medicale (Inserm), França. Pierre Corvol.

Laboratório de Biologia Celular – Tufts University – Boston, USA. Prof. Brian Pereira.

Hospital de Astúrias, Espanha. Francisco Ortega. Immunobiology Research Center, Department of

Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA. Prof. Fritz Bach.

Instituto Gulbenkian de Ciência, Portugal. Prof. Miguel Soares.

Laboratoire d'Immunologie, Faculté de Médecine de Tours. Profa. Florence Velge-Roussel.

National Institute Health – NIH (EUA). Favorit Investigators.

Prizes

Nestor Schor

Great Names of Brazilian Medicine – 4th Forum of Health and Welfare. 2015

Poster Presentation – Award – *Salvia miltiorrhiza* bunge protects function in partial ureteral unilateral obstruction in rats – The American Academy of Medical Acupuncture. 2015

José Osmar Medina de Abreu Pestana

Lide Health 2014 Award – Health and Welfare Forum. 2014

Financial support

Fapesp, Capes, CNPq, NIH, FOR.

Facilities

Please see a list of multi-user equipment at this site: <http://nefro.epm.br/setores.htm>

Other information

One of our current PhD students, Pablo Ferraz, has evaluated the profile and destination of fellows trained in the Nephrology Program over the last 40 years. Of the 639 students enrolled during that period, 394 obtained the Master degree and 245 achieved the PhD. Of those who obtained the Master degree, 64% were women; for the PhD degree, approximately 50% were women. Until 1991, only fellows graduated in medicine were accepted in the Program. However, after 1992 this profile has progressively changed and now medical fellows represent 32% of graduate students in the Nephrology Program, while 68% are from other areas. With regard to home institution, half of the students in our Program came from public institutions and half from private institutions.

Neurology/Neuroscience

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/neuro>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1425

Coordinator

Celia Harumi Tengan

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Rua Pedro de Toledo, 669 – Edif. Pesquisa II –
2º andar – Vila Clementino – Cep 04039-002
São Paulo/SP – Brazil

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(55 11) 5576-4848 extension 2838

Historical background

The Postgraduate Program in Neurology/Neuroscience was created in 1978. In the first years of the Program only neurologists were accepted as students. During the 80's students with backgrounds in other health and biological sciences began to be accepted, and the Program became a pioneer in the multidisciplinary approach to postgraduate education. Since then the Program accepts students with a variety of backgrounds who are interested in developing research on neuroscience and with a focus on neurological disorders. Research projects are based on clinical, basic and translational studies with the aim to elucidate pathogenesis and develop new strategies for diagnosis and treatment of neurological diseases. The available infrastructure includes clinical sections for patient care and research laboratories providing the resources needed for translational studies using patients' samples and experimental models. The research facilities allow studies using a

wide range of methods in areas such as molecular biology, biochemistry, cell culture, electrophysiology and histopathology. The Program is designed to prepare qualified research professionals, allowing the simultaneous development of science and technology in Brazil and advances in research and treatment of patients.

Research focus

Our research groups are interested in studies focusing on investigation of several types of neurological disorders. The objectives of these studies are to expand knowledge regarding clinical manifestations, pathogenesis, genetic background and treatment. Clinical, basic and translational research is performed in the areas of:

Child neurology

Clinical neurophysiology

Cognitive impairment in neurological disorders

Epilepsy

Headaches

Movement disorders

Neuro-oncology

Neuromuscular diseases

Neuroplasticity

Neurovascular diseases

Selected publications

Oliveira FF, Bertolucci PH, Chen ES et. al. Brain-Penetrating Angiotensin-Converting Enzyme Inhibitors And Cognitive Change In Patients With Dementia Due to Alzheimer's disease. *J Alzheimers Dis.* (Online) 2014, doi: 10.3233/JAD-132189

Ribeiro RS, Pereira MM, Pedroso JL et. al. Cervical and ocular vestibular evoked potentials in Machado-Joseph disease: functional involvement of otolith pathways. *J Neurol Sci.* 2015; 358(1-2): 294-298.

Araújo B, Torres L, Stein M et. al. Decreased expression of proteins involved in energy metabolism in the hippocampal granular layer of rats submit-

ted to the pilocarpine epilepsy model. *Neurosci Lett*. 2014; 561(3): 46-51.

Paschoal JK, Paschoal FM Jr, de Lima FT et. al. Detection of cerebral vasculopathy by transcranial doppler in children with neurofibromatosis type 1. *J Child Neurol*. 2015; 31(3): 351-356.

Nogueira GS, Santos LE, Rodrigues AM et. al. Enhanced nonsynaptic epileptiform activity in the dentate gyrus after kainate-induced status epilepticus. *Neuroscience*. 2015; 303: 59-72.

Simões PS, Visniauskas B, Perosa SR et. al. Expression and activity of thimet oligopeptidase (TOP) are modified in the hippocampus of subjects with temporal lobe epilepsy (TLE). *Epilepsia*. 2014; 55(5): 754-762.

Nejm MB, Haidar AA, Marques MJ et. al. Fish oil provides protection against the oxidative stress in pilocarpine model of epilepsy. *Metab Brain Dis*. 2015; 30(4): 903-909.

Lamis FC, de Paiva Neto MA, Cavalheiro S. Fusiform superior cerebellar artery aneurysm treated with STA-SCA bypass and trapping. *Surg Neurol Int* (Online) 2014, doi 10.4103/2152-7806.134806

Lucchetti G, Peres MF, Lucchetti AL et. al. Generalized anxiety disorder, subthreshold anxiety and anxiety symptoms in primary headache. *Psychiatry Clin Neurosc*. 2013; 67(1): 41-49.

Lin K, de Araújo Filho GM, Pascalicchio TF et. al. Hippocampal atrophy and memory dysfunction in patients with juvenile myoclonic epilepsy. *Epilepsy Behav*. 2013; 29(1): 247-251.

Gamba J, Gamba LT, Rodrigues GS et. al. Nitric oxide synthesis is increased in cybrid cells with M.3243A>G mutation. *Int J Mol Sci*. 2013; 14(1): 394-410.

Aguiar PC, Borges V, Ferraz HB et. al. Novel compound heterozygous mutations in PRKRA cause pure dystonia. *Mov Disord*. 2015; 30(6): 877-878.

Romariz SA, Garcia K de O, Paiva D de S et. al. Participation of bone marrow-derived cells in hippocampal vascularization after status epilepticus. *Seizure*. 2014; 23(5): 286-289.

Malheiros JM, Lima M, Avanzi RD et. al. Repetitive noxious neonatal stimuli increases dentate gyrus cell proliferation and hippocampal brain-derived neurotrophic factor levels. *Hippocampus*. 2014; 24(4): 415-423.

Figueiredo MM, Rodrigues AC, Alves MB et. al. Score for atrial fibrillation detection in acute stroke and transient ischemic attack patients in a brazilian population: the acute stroke atrial fibrillation scoring system. *Clinics*. 2014; 69(4): 241-246.

Alvarenga TA, Matos G, Scorza FA et. al. Sexual response in female rats with status epilepticus. *Epilepsia*. 2013; 54(4): 644-648.

Cuperman T, Fernandes SA, Lourenço NC et al. Silent polymorphisms in the RYR1 gene do not modify the phenotype of the P.4898 I>T pathogenic mutation in central core disease: a case report. *BMC Res Notes*. (Online) 2014, doi 10.1186/1756-0500-7-487

Pedroso JL, Bor-Seng-Shu E, Felício AC et. al. Substantia nigra echogenicity is correlated with nigrostriatal impairment in Machado-Joseph disease. *Parkinsonism Relat Disord*. 2013; 19(8): 742-745.

Novaes Gomes FG, Fernandes J, Vannucci Campos D et. al. The beneficial effects of strength exercise on hippocampal cell proliferation and apoptotic signaling is impaired by anabolic androgenic steroids. *Psychoneuroendocrinology*. 2014; 50: 106-117.

Barros VN, Mundim M, GalindoLT et. al. The pattern of C-FOS expression and its refractory period in the brain of rats and monkeys. *Front Cell Neurosci*. (Online) 2015, doi 10.3389/fncel.2015.00072

Books and chapters

Ataxias esporádicas. Orlando Graziani Povoas Barsottini. 2013.

Atraso do desenvolvimento e encefalopatia crônica não evolutiva. Ricardo Silva Pinho. 2013.

Cefaléia. Marcelo Masruha Rodrigues. 2013.

Central nervous system tumors. Suzana Maria Fleury Malheiros. 2015.

Crises epiléticas. Elza Marcia Targas Yacubian. 2014.

Crises epiléticas, epilepsias e estado de mal epilético. Juliana Harumi Arita Miyadahira. 2013.

Distúrbios do sono. Ricardo Silva Pinho. 2013.

Doença de Alzheimer. Paulo Henrique Ferreira Bertolucci. 2015.

Doenças neuromusculares. Acary Souza Bulle Oliveira. 2013.

Encefalopatia hipóxico-isquêmica. Luiz Celso Pereira Vilanova. 2013.

Epilepsia: conceito e classificação das crises e das síndromes. Elza Márcia Targas Yacubian. 2013.

Miopatias metabólicas. Marcela Camara Machado Costa. 2013.

Mitochondrial dysfunction and free radicals in neuronal death. Celia Harumi Tengan. 2015.

N-3 fatty acids and sudden unexpected death In

epilepsy: a translational approach. Fulvio Alexandre Scorza. 2015.

Nutrição em demência. Glaucia Akiko Kamikado. 2013.

Physical exercise as a strategy to reduce seizure susceptibility. Ricardo Mario Arida. 2013.

Proteomics-based strategy to identify biomarkers and pharmacological targets in temporal lobe epilepsy. Maria José da Silva Fernandes. 2013.

Regressão neurológica e encefalopatias crônicas progressivas. Jaime Lin. 2013.

Social isolation disrupts hippocampal neurogenesis in young non-human primates. Simone Cinini Maria. 2015.

Transtornos do movimento. Henrique Ballalai Ferraz. 2015.

Transtornos neuropsiquiátricos. Joelma Karin Sagica Fernandes Paschoal. 2013.

Tratamento medicamentoso das epilepsias. Elza Marcia Targas Yacubian. 2014.

Grants

National Institute of Translational Neuroscience. Principal Investigator: Êsper Abrão Cavalheiro; period 03/01/2009 – 02/28/2015; Fapesp&CNPq (08/57904-0).

New approaches of studies on neural stem cells in central nervous system diseases. Principal investigator: Beatriz Monteiro Longo; period 10/01/2012-09/30/2014; Fapesp (12/11984-9).

Multimodal investigation of epileptogenesis with emphasis in the implementation of new animal models and new tools. Principal investigator: Iscia Teresinha Lopes Cendes (Unicamp); co-investigators: Fernando Cendes; Maria da Graca Naffah Mazzacoratti; Debora Amado Scerni. period 04/01/2012-03/31/2016; Fapesp&CNPq (11/50680-2).

Brain plasticity induced by physical exercise. Principal investigator: Ricardo Mario Arida; co-investigator: Fulvio Alexandre Scorza; period 10/01/2009-09/30/2013; Fapesp (09/06953-4).

Morphofunctional, biochemical and molecular analysis in experimental model of myopathy associated with statin. Principal investigator: Helga Cristina Almeida da Silva; period 04/01/2013-03/31/2015; Fapesp (12/21267-2).

Focal dystonia in musicians in Brazil. Principal investigator: Henrique Ballalai Ferraz; period 02/01/2013-01/31/2015; Fapesp (12/10544-5).

Cellular effects of deep brain stimulation in an-

terior thalamus nucleus in experimental models of temporal lobe epilepsy. Principal investigator: Luciene Covolan; period 10/01/2012-09/30/2012; Fapesp (12/50950-2).

Mapping patterns of c-Fos expression in the central nervous system of the marmoset (*Callithrix jacchus*) after seizure. Principal investigator: Luiz Eugenio Araujo de Moraes Mello; period 09/01/2013-08/31/2015; Fapesp (13/12031-8).

EEG patterns in premature newborn children under caffeine use. Principal investigator: Marcelo Masruha Rodrigues; period 08/01/2012-07/31/2014; Fapesp (11/50140-8).

Clinical and molecular aspects in childhood autism and Asperger syndrome. Principal investigator: Marcelo Masruha Rodrigues; period 11/01/2011-10/31/2013; Fapesp (11/14116-5).

Temporal Lobe Epilepsy: a Study Correlating Brain Image, Morphological Features, Electrophysiological Findings, Hormonal and Neurochemical Aspects in Humans With and Without Mesial Temporal Sclerosis. Principal investigator: Luiz Eugenio Araujo de Moraes Mello; co-investigators: Maria da Graca Naffah Mazzacoratti; Debora Amado Scerni; Maria José da Silva Fernandes Linha de fomento; period 04/01/2007-05/31/2013; Fapesp, Cinapce Program).

Gene expression in peripheral blood cells from Friedreich ataxia patients. Principal investigator: Orlando Graziani Povoas Barsottini; period 12/01/2012-11/30/2014; Fapesp (12/17494-3).

Influence of aerobic exercise on the expression and distribution of microRNAs in the hippocampal formation of adult rats. Principal investigator: Ricardo Mario Arida; period 10/01/2013-09/30/2015; Fapesp (13/12692-4).

Anthroposophy applied to health: treatment of pain in post-poliomyelitis syndrome with drugs and anthroposophical therapies. Principal investigator: Acary Souza Bulle Oliveira; period 12/09/2013-12/08/2015; MCTI/CNPq/MS – SCTIE – Decit No 07/2013 – Política Nacional de Práticas Integrativas e Complementares (PICS) no Sistema Único de Saúde.

Study of the pro-inflammatory cytokine suppression in epileptic status in Wistar rats and evaluation of inflammatory responses and glial activation after epileptic status in *Proechimys* rodents, an animal model with epilepsy resistance. Principal investigator: Esper Abrao Cavalheiro; period 10/29/2010-10/28/2015; Edital MEC/Capes e MCT/CNPq/Finep No 28/2010.

Effects of fish oil supplementation in oxidative stress and in visual-spatial tasks performance in the pilocarpine induced experimental model of epilepsy. Principal investigator: Fulvio Alexandre Scorza; period 11/18/2014-11/17/2017; MCTI/CNPq.

Involvement of the renin-angiotensin system in temporal lobe epilepsy. Principal investigator: Maria da Graça Naffah Mazzacoratti; period 11/11/2013-11/10/2016; MCTI/CNPq.

PhD Thesis (2015)

Renato Filev. Behavioral and molecular effects of phytocannabinoids on locomotor sensitization induced by ethanol in mice. Supervisor: Luiz Eugenio Araujo De Moraes Mello.

Glauca Akiko Kamikado. Compared the use of nutrition supplementation and the functional capacity of the elderly and patients with Alzheimer's disease. Supervisor: Paulo Henrique Ferreira Bertolucci.

Roberta Arb Saba Rodrigues Pinto. Tractography study of individuals with mutation for Huntington's disease in symptomatic and pre-symptomatic phases. Supervisor: Henrique Ballalai Ferraz.

Reinaldo Teixeira Ribeiro. Register of cluster headache in Brazil. Supervisor: Mario Fernando Prieto Peres.

Priscila Cunha Santos. Development and reliability of a new ankle dorsiflexion assessment method in spastic cerebral palsy. Supervisor: Marcelo Masruha Rodrigues.

Ricardo Silva Pinho. Epidemiological study of pediatric patients with central nervous system tumor assisted at the Institute of Pediatric Oncology. Supervisor: Marcelo Masruha Rodrigues.

Beatriz Oliveira Amorim. Cellular, behavioral and electroencephalographic effects of deep brain stimulation of anterior nucleus of the thalamus in pilocarpine-induced model of temporal lobe epilepsy. Supervisor: Luciene Covolan.

José Eduardo Marques Carneiro da Silva. Carisbamate as neuroprotective agent and epileptogenesis modifier in the lithium-pilocarpine model: evaluation of protein expression and brain neurochemical changes. Supervisor: Maria José da Silva Fernandes.

João Carlos Escosteguy Neto. Endocannabinoid system in two animal models: anandamide in the positive associative reinforcement memory and CB2 receptor expression in BTBR T+tf/J mice. Supervisor: Jair Guilherme dos Santos Junior.

Jackeline Moraes Malheiros. In vivo evaluation of cell activity using manganese-enhanced magnetic resonance imaging (MEMRI) in adult rats after neonatal nociceptive stimulation. Supervisor: Luciene Covolan.

Joelma Karin Sagica Fernandes Paschoal. Cerebral vasculopathy in children and adolescents with neurofibromatosis type 1. Marcelo Masruha Rodrigues.

Nildo Manoel da Silva Ribeiro. Virtual rehabilitation via Nintendo Wii® and conventional physical therapy effectively treat post-stroke hemiparetic patients. Supervisor: Marcelo Masruha Rodrigues.

Michele Gea Guimaraes Pozzato. Global functional performance and molecular analysis in autism and Asperger syndrome. Supervisor: Luiz Celso Pereira Vilanova.

Michelle Gasparetti Leão Araujo. Pharmacological antagonist to study the role of the P2X7 receptor on changes caused by pilocarpine-induced seizures. Supervisor: Maria José da Silva Fernandes.

MSc Thesis (2015)

Marina Fontes De Paula Aguiar. Magnetofection using iron oxide nanoparticles on glioblastoma tumors for subsequent therapeutic application of magneto hyperthermia: in vitro and in vivo study. Supervisor: Lionel Fernel Gamarra Contreras.

Marcio Delascio Lopes. Analysis of cardiovascular responses in rats submitted to electric amygdala kindling model. Supervisor: Fulvio Alexandre Scorza.

Cristiane Torres Amaral. Behavioral and cellular alterations in adult rats submitted to neonatal inflammatory nociception. Supervisor: Luciene Covolan.

Pedro Vicente Ferreira Naves. Temporal pole signal abnormality on MRI in temporal lobe epilepsy with hippocampal sclerosis and long-term prognosis after epilepsy surgery. Supervisor: Elza Marcia Targas Yacubian.

Claudia Beatriz De Campos Lotti. Late Onset Multiple Sclerosis: A Retrospective Cohort Study. Supervisor: Acary Souza Bulle Oliveira.

Larissa Zanichelli. Noun and verb naming in aphasia. Supervisor: Thais Soares Cianciarullo Minnett.

James Henrique Yared. Huntington's Disease: Comparative volumetric study in patients, presymptomatic individuals and normal controls using automated segmentation of magnetic resonance images. Supervisor: Henrique Ballalai Ferraz.

Vassiliki de Brito Patsis. Evaluation of N-Acetylcysteine treatment in behavioral and histological events caused by pilocarpine. Supervisor: Maria José da Silva Fernandes.

Rafael Karan Vianna de Sá. Update of contextual appetitive memory induced by cocaine involves consolidation and not reconsolidation mechanisms. Supervisor: Jair Guilherme dos Santos Junior.

Manaira Giraudon Monteiro Tobias. Neuroprotection analysis in rats supplemented with fish oil during development after Status epilepticus. Supervisor: Fulvio Alexandre Scorza.

Joilson Moura dos Santos. Malignant hyperthermia: histomorphometric analysis of skeletal muscle fiber of susceptible patients. Supervisor: Helga Cristina Almeida da Silva.

Rita de Cassia Caraméz Saraiva Santos. Articular hypermobility in malignant hyperthermia. Supervisor: Helga Cristina Almeida da Silva.

Melissa Marques Pereira. Vestibular evoked myogenic potentials in healthy adults. Supervisor: Gilberto Mastrocola Manzano.

Luiz Guilherme Zaccaro do Amaral Baliego. Investigation of acute and chronic strength exercise on neurotrophic factors and synaptic proteins expression in the hippocampal formation of rats. Supervisor: Ricardo Mario Arida.

Kleber Edson Kawagoe. Ratio between Central Motor Conduction Time and Central Sensory Conduction Time in upper motor neuron evaluation. Supervisor: Gilberto Mastrocola Manzano.

International cooperations

Marina Bentivoglio – University of Verona, Verona, Italy.

Roberto Spreafico – IRCCS Foundation Istituto Neurologico C. Besta, Milan, Italy.

Astrid Nehlig – INSERM U 666, Strasbourg, France.

Uwe Heinemann – Charité Universitätsmedizin Berlin, Germany.

Maria Thom – University College London, Institute of Neurology, London, UK.

Ley Sander – NIUCL Institute of Neurology, London, UK.

Luisa Rocha – Center of Research and Advanced Studies, Mexico City, Mexico.

Christopher DeGiorgio – UCLA School of Medicine, Los Angeles, California, USA.

Carlos Zarate – National Institutes of Health, Bethesda, MD, USA.

Clement Hamani – Toronto Western Hospital, Toronto, Canada.

Philippe Ryvlin – Claude Bernard Lyon-1 University, Lyon, France.

Ingmar Blumcke – University Hospital Erlangen, Schwabachanlage, Erlangen, Germany.

João Malva – University of Coimbra Coimbra, Portugal.

Fernando Gomez-Pinilla – UCLA, USA.

Anthony Lang – University of Toronto, Canada.

Helen Scharfman – New York University Langone Medical Center, USA.

Prizes

Ambassador for Epilepsy, International League Against Epilepsy, 2015. Elza Marcia Targas Yacubian.

Paulo Niemeyer Award, Liga Brasileira de Epilepsia. 2014. Elza Marcia Targas Yacubian.

Péter Murányi Award. 2014. Ricardo Mario Arida.

Best Poster Award: Thalamic Tumor in Pediatric Population: anatomy, approaches and histology review, 42 Annual Meeting – International Society of Pediatric Neurosurgery. 2014. Sergio Cavalheiro.

Best researcher on sudden unexpected death in epilepsy of Latin America, Sociedad de Psiquiatria Y Neurologia de La Infancia Y Adolescencia do Chile. 2013. Fulvio Alexandre Scorza.

Science and Innovation Santander Award. 2013. Luciene Covolan.

Antonio Branco Lefèvre Award, Sociedade Brasileira de Neurologia Infantil. 2013. Marcelo Masruha Rodrigues.

Best Paper Award in the area of Nervous System Tumors. XVIII Congresso SBOC, Sociedade Brasileira de Oncologia Clínica. 2013. Suzana Maria Fleury Malheiros.

Honorable Mention from the Capes Thesis Award. 2012. Thesis title: Analysis of the relevance of nitric oxide on mitochondrial proliferation, mitochondrial function and apoptosis induction. Student: Gabriela Silva Rodrigues. Supervisor: Célia Harumi Tengan.

Best Paper award in Basic Investigation. V Congreso Latinoamericano de Epilepsia. 2008. Maria da Graça Naffah-Mazzacoratti.

First Prize of the Research Paper of the American Academy of Medical Acupuncture, American Acad-

emy of Medical Acupuncture. 2006. Luis Eugenio Araujo de Moraes Mello.

Patents

Amorim, H.A.; Silveira, F.F.; Cavalleiro, E.A. Patent number: 0000221106421510, Date: 07/12/2011, Title: “Automated table for neuro-stereotaxic surgery in rodents, using stepper motors and computer assisted”. Financial support: MCT / CNPq / Fapesp.

Mello, L.E.A. M.; Benassi, S. K.; Massant, C. G. Patent number: 005130, date: 12/17/1999, Title: “Use of scopolamine salts in the prophylaxis of epilepsies”. Financial support: Fapesp.

Financial support

CNPq, Capes, Fapesp, Finep, MCT.

Facilities

Our facilities include the medical school hospital, outpatient clinics and research laboratories. Our supervisors are members of specialized clinical teams that provide consultation and treatment in various sub-specialties of neurology and neurosurgery. We highlight the unit for research and treatment of epilepsies, focusing on the integrated study of patients with intractable epilepsy. Research laboratories provide the required infrastructure for studies using a variety of methods including electrophysiology, neuropathology, cell culture, molecular biology, biochemistry, and experimental animal models.

Other information

The Postgraduate Program in Neurology/Neuroscience has produced more than 500 Master and PhD theses. Currently the Program has approximately 130 Master and PhD students and 33 supervisors.

Medicine (Otorhinolaryngology)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/otorrinolaringologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1426

Coordinator

Norma de Oliveira Penido

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Historical background

Since its beginning in 1979, the Postgraduate Program in Otorhinolaryngology has sought to educate teachers and researchers, with the primary purpose of disseminating scientific knowledge and generating new knowledge in the field of otorhinolaryngology. Our two areas of focus, which correspond to the two areas of concentration in the Program, are the skull base and head and neck surgery. Our effort toward educating professors and researchers has resulted in 278 master degrees, 160 doctor degrees and 8 post-docs, many of whom currently work in various federal, state and private universities across the country.

As a multidisciplinary and multi-professional initiative, our Program integrates with other areas of health sciences. Our goal is to present to the institution and the national academic community a set of researchers with skills and experience in experimental and clinical research.

Research focus

Pathophysiological mechanisms, evaluation and treatment of disorders of the upper aerodigestive tract.

Bio-histocompatible implantable materials.

Morphological, physiological and pathological mechanisms of sensory and neural disorders of hearing and body balance.

New tools in teaching and training in otorhinolaryngology and head and neck surgery/Behavior of neoplasms of the upper aerodigestive tract.

Morphology, physiology and pathology of the thyroid and parathyroid glands.

Selected publications

1 – Pezato R; Balsalobre Filho L.; Lima M; Bezerra T; Voegels RL; Gregório LC; Stamm AEC; Zele T. Convergence of two major pathophysiologic mechanisms in nasal polyposis: immune response to *Staphylococcus aureus* and airway remodeling. *J Otolaryngol-Head N*, v. 42, p. 27, 2013.

2 – Fujita RR; Caixeta J. Otolaryngologic findings in prepubertal obese children with sleep-disordered breathing. *International Journal of Pediatric Otorhinolaryngology (Print)*, p. 1-4, 2013.

3 – Vidigal T; Haddad FL; Gregorio LC; Poyares D; Tufik S; Bittencourt LR. Subjective, anatomical, and functional nasal evaluation of patients with obstructive sleep apnea syndrome. *Sleep & Breathing*, v. 17, p. 427-433, 2013.

4 – Pezato R; Almeida DC; Bezerra TF; Silva FS; Perez-Novio C; Gregório LC; Voegels RL; Câmara NO; Bachert C. Immunoregulatory effects of bone marrow-derived mesenchymal stem cells in the nasal polyp microenvironment. *Mediators of Inflammation (Print)*, v. 2014, p. 1-11, 2014.

5 – Haddad L; Bittencourt L; Gregório LC; Tufik S; Abrahão M. Impact of thyroidectomy on the control of obstructive sleep apnea syndrome in patients with large goiters. *Sleep & Breathing*, v. 18, p. 825-828, 2014.

6 – Barros BBC; Andrade JSC; Garcia LB; Pifaia, GR; 3. Cruz OLM; 3. Onishi ET; Penido NO. Micro-endoscopic ear anatomy of guinea pig applied to experimental surgery. *Acta Cirúrgica Brasileira* (Online), v. 29, p. 07-11, 2014.

7 – Pezato R; Pérez-Novo CA; Hotappels G; De Ruyck N; Van Crombruggen K; De Vos G; Bachert C; Derycke L. The expression of dendritic cell subsets in severe chronic rhinosinusitis with nasal polyps is altered. *Immunobiology*. Sep;219(9):729-36, 2014.

8 – Figueiredo RR; Azevedo AA; Penido, NO. Tinnitus and arterial hypertension: a systematic review. *European Archives of Oto-Rhino-Laryngology*, v. 1, p. 1-6, 2014.

9 – Neiva FC; Borin A; Lee KS; Dias MVS; Rodrigues BR; Testa JRG; Cruz OLM; Covolan L. Expression of aquaporin 2 following facial nerve crush in rats. *Acta Oto-Laryngologica*, v. 3, p. 1-5, 2015.

10 – De Oliveira Vicente A.; Chandrasekhar SS; Yamashita HK; Cruz OLM; Barros FA; Penido NO. Magnetic Resonance Imaging in the Evaluation of Clinical Treatment of Otospongiosis: A Pilot Study. *Otolaryngology and Head and Neck Surgery*, v. 152, p. 1119-1126, 2015.

11 – De Godoy LBM; Palombini LO; Martinho HFL; Rapoport DM; De Aguiar VT; Klichouicz PC; Tufik S; Togeiro SM. New Insights on the Pathophysiology of Inspiratory Flow Limitation During Sleep. *Lung*, v. 193, p. 387-392, 2015.

12 – Marenco HA; Zymberg ST; Santos RP; Ramalho CO. Surgical treatment of non-functioning pituitary macroadenomas by the endoscopic endonasal approach in the elderly. *Arquivos de Neuro-Psiquiatria* (Online), v. 73, p. 764-769, 2015.

13 – Soares OMC; Tufik S; Louise MHF; Santos-Silva R; Gregorio LC; Bittencourt L. Systematic Evaluation of the Upper Airway in a Sample Population: Factors Associated with Obstructive Sleep Apnea Syndrome. *Otolaryngology and Head and Neck Surgery*, v. 153, p. 663-670, 2015.

Books and chapters

Book:

Hachiya Adriana (Org.); Crespo AN (Org.); Chone CT (Org.); Tamashiro E. (Org.); Penido NO. (Org.); Roithmann R (Org.). 1000 Perguntas e Respostas em Otorrinolaringologia. 1. ed. Rio de Janeiro: Editora Roca Ltda, 2014. v. 1. 383p.

Chapters:

1 – Vaisberg M; Bachi ALL. Fundamentals in allergic processes induced by exercise. In: Vagner Raso, Julia Maria D'Andrea Greve, Marcos Doederlein Polito. (Org.). *Pollock Fisiologia Clínica do Exercício*. 1ed. São Paulo: Editora Manole Ltda, 2013, v. , p. 226-232.

2 – Penido NO; Borim, A. Hearing loss. In: Durval Rosa Borges. (Org.). *Atualização Terapêutica de Prado, Ramos e Valle*. 25 ed. São Paulo: Artes Médicas Ltda., 2014, v. I, p. 1426-1430.

3 – Takimoto RM; Abrahão M; Cervantes O. Foreign body in the upper airway. Approach unit primary care. In: Roney Orismar, Zied Raslan, Nelson Akamine. (Org.). *Condutas em emergências – Unidade de Primeiro atendimento (UPA) do Hospital Israelita Albert Einstein*. 1 ed. São Paulo: Editora Atheneu, 2014, v. 1, p. 455-458.

4 – Takimoto RM; Abrahão M; Cervantes O; Vidotto TM; Alvarenga MA. Thyroid disease. In: Roney Orismar, Zied Raslan, Nelson Akamine. (Org.). *Condutas em Emergências – Unidade de Primeiro Atendimento (UPA) do Hospital Israelita Albert Einstein*. 1ed. São Paulo: Editora Atheneu, 2014, v. 1, p. 197-208.

5 – Zymberg ST; Guimarães Filho VFA; Canteiras MM. Intracranial metastases: considerations in the diagnosis and treatment principles. In: Wagner José Gonçalves (ed.); João Norberto Stávale; Oren Smaletz; Roberto Araújo Segreto. (Org.). *Ginecologia Oncológica*. 1ed. São Paulo: Atheneu, 2014, v. , p. 387-394.

6 – Melo OGM; Takimoto RM; Cervantes O; Abrahão M. Voice rehabilitation with vocal prosthesis after total laryngectomy. In: ABORL-CCF, Marcus M. Lessa, Fabio de Rezende Pinna, Marcio Abrahão, Silvio da Silva Caldas Neto. (Org.). *PRO-ORL. Programa de Atualização em Otorrinolaringologia – Ciclo 9*. 1 ed. São Palo: Artmed/Panamericana Editora Ltda, 2015, v. 1, p. 33-100.

7 – Santos RP; Zymberg ST; Silva CAP. Complications of Central Nervous System. In: Otavio B. Piltcher; Sady Selaimen da Costa; Gerson Schulz Maahs; Gabriel Kuhl. (Org.). *Rotinas em Otorrinolaringologia*. 1ed. Porto Alegre: Artmed, 2015, V. , p. 257-264.

8 – Bacchi ALL; Santos JMB; Vaisberg M. Physical Exercise and Immune System: A relevant relationship. In: Marília dos Santos Andrade; Claudio André Barbosa de Lira. (Org.). *Fisiologia do Exercício*. 1ed. Barueri/SP: Manole, 2015, v. , p. 937-962.

Grants

Fapesp

- Tematic Project 2008/2014 – 54714-6 – Responsible: Prof. Dr. Marcos Bandeira Paiva.
- Regular project 2012/15715-2 – Responsible: Profa. Dra. Shirley Pignatari.
- Regular project 2011/50585-0 – Responsible: Profa. Dra. Shirley Pignatari.
- Regular project – 2012/51698-5 – Responsible: Prof. Dr. Mauro Vaisberg.

Capes

- Edital/2014 Pro-Equipments Capes R\$ 44.400,00
- Responsible: Profa. Dra. Norma de Oliveira Penido.

Brazilian Health Ministry Grant

Responsible: Prof. Dr. Márcio Abrahão.

Financial support from private companies

Neurograff Eletromedicina Ltda. Responsible: Prof. Dr. Fernando Freitas Ganança.

Associação Brasileira de Otorrinolaringologia e Cirurgia Cérvico-Facial. Responsible: Prof. Dr. Fernando Freitas Ganança.

Audibel: Responsible: Prof. Dr. José Ricardo Gurgel Testa.

Banco Itaú Holding Financeira SA: Responsible: Prof. Dr. Luis Carlos Gregório.

Widex (Centro Auditivo Widex): Responsible: Profa. Dra. Norma Penido.

PhD Thesis (2015)

1 - Title: Effect of human papillomavirus (types 6, 11, 16 and 18) vaccine in the treatment of children with recurrent respiratory papillomatosis.

Student: Juliana Sato Hermann.

Supervisor: Shirley Shizue Nagata Pignatari.

2 - Title: Facial nerve identification with fluorescence: an experimental study in rats.

Student: Giuliano Molina de Melo

Supervisor: Onivaldo Cervantes.

3 - Title: Association Between Tinnitus and Arterial Hypertension.

Student: Ricardo Rodrigues Figueiredo.

Supervisor: Norma de Oliveira Penido.

4 - Title: Prevalence of minor structural altera-

tions of the larynx: influence on the concept of normal vocal fold.

Student: Bruno Teixeira de Moraes.

Supervisor: Noemi Grigoletto de Biase.

5 - Title: Ménière's disease: molecular study of AQP2, AQP3, KCNE1, GJB2 and GJB6 genes

Student: Karen de Carvalho Lopes.

Supervisor: Fernando Freitas Ganança.

MSc Thesis (2015)

1 - Title: Balance and vestibular assessment in the obstructive sleep apnea.

Student: Juliana Antonioli Duarte.

Supervisor: Fernando Freitas Ganança.

2 - Title: Ethmoidal crest resection at sphenopalatine artery surgery.

Student: Paulo Saraceni Neto.

Supervisor: Eduardo Macoto Kosugi.

3 - Title: Video-head impulse test in vestibular migraine patients.

Student: Marcio Cavalcante Salmito.

Supervisor: Fernando Freitas Ganança.

4 - Title: Hearing sequelae from acute otitis media.

Student: Francisco Polanski Cordeiro.

Supervisor: Norma de Oliveira Penido.

5 - Title: Laryngeal disorders in children with congenital heart diseases

Student: Ana Amelia Soares Torres.

Supervisor: Shirley Shizue Nagata Pignatari.

6 - Title: Volumetric Evaluation of the Maxillary Sinus in Patients Treated With Orthopedic Maxillary Expansion.

Student: Fabio Eduardo Maiello Monteiro Alves.

Supervisor: Reginaldo Raimundo Fujita.

7 - Title: Reproducibility of Systematic Evaluation of Upper Airway and Craniofacial Skeleton in Patients with Obstructive Sleep Respiratory Disturbance

Student: Danilo Anunciato Sguillar.

Supervisor: Fernanda Louise Martinho Haddad.

8 - Title: Serum levels of inflammatory markers in children undergoing adenotonsillectomy

Student: Viviane Maria Guerreiro Da Fonseca.

Supervisor: Reginaldo Raimundo Fujita.

9 - Title: Inflammatory markers in palatine tonsils of children with obstructive sleep apnea syndrome

Student: Vitor Guo Chen.

Supervisor: Reginaldo Raimundo Fujita.

International cooperations

1 - David Geffen School of Medicine (University of California, Los Angeles) Prof: Marcos Bandeira Paiva.

2 - Ghent University (Belgium) Prof: Luiz Carlos Gregório and Prof.^a Claudina Pérez-Novo and Prof. Claus Bachert and Rogério Pezato.

3 - Iowa University (USA) Profa: Norma de Oliveira Penido and Ricardo Figueiredo.

4 - Regensburg University (Germany) Profa: Norma de Oliveira Penido and Ricardo Figueiredo.

5 - Mount Sinai School of Medicine Profa: Norma de Oliveira Penido and Prof^a. Dr^a. Sujana S. Chandrasekhar,

6 - Harvard Medical School Prof: Eduardo Macoto Kusugi and Luciano Lobato Gregório.

7 - Medizinische Hochschule Hannover (Germany) Prof: Oswaldo Laércio Mendonça Cruz and José Santos Cruz de Andrade

Prizes

2016 – Junior Member Grant, European Rhinology Society (ERS). Luciano Lobato Gregório.

2015 – 1st place – Masters of Surgery Video Presentations – Resection of an Optic Canal and Middle Cranial Fossa Cavernous Hemangioma, AAO-HNSF – 119th AAO-HNSF Annual Meeting & OTO EXPO . Luciano Lobato Gregório.

2015 – Best Poster / Session Otoneurology of the 45th Brazilian Congress of Otorhinolaryngology and Facial Cervical Surgery, Brazilian Association of Otorhinolaryngology and Facial Cervical Surgery. Andreia Aparecida Axevedo.

2015 – Honorable Mention Otology / Skull Base Poster at the 45th Brazilian Congress of Otorhinolaryngology and Cervical Facial Surgery, Brazilian Association of Otorhinolaryngology and Facial Cervical Surgery. Ricardo Rodrigues Figueiredo.

Patents

Equipment for endoscopic surgery of larynx with amplification and recording by video camera. Antônio Pontes and Paulo Augusto de Lima Bridges Registration: BR 10 2012 030973 4.

Technical arrangement introduced in pedagogical ear prototype. Antônio Pontes and Paulo Augusto de Lima Bridges Registration: BR 20 2014 002436 6.

Financial support

Fapesp, Capes, CNPq.

Facilities

Please see <http://www2.unifesp.br/dotorrino/pp-gmedotor>

Other information

The Postgraduate Program in Medicine Otorhinolaryngology has produced 438 Master and PhD theses since its foundation 35 years ago. Currently the Program has 46 Master and PhD students, undergraduates, visiting professors and 11 Post-Doc-toral fellows.

Pediatrics and Sciences Applied to Pediatrics

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/pediatria>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1427

Coordinator

Dirceu Solé

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Rua Botucatu, 598 – Vila Clementino –
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(55 11) 5576-4848 extension 2914

Historical background

The Postgraduate Program in Pediatrics and Sciences Applied to Pediatrics was founded 35 years ago with the objective of training students to a) design and implement scientific projects for the advancement of knowledge of human health and its interfaces, with emphasis on children and adolescents, b) disseminate that knowledge through oral and written media, c) transmit that knowledge to other groups of students and professionals seeking scientific collaboration, d) promote international dialogue in science and create international networks of collaboration and e) seek research funding for new and ongoing scientific investigation in pediatrics and applied sciences.

Research focus

Education in Pediatrics

Investigation of the ways in which Pediatrics and

Neonatology are taught and learned, with emphasis on the learning processes of health professionals

Infection and immunization

Evaluation of the immune system in different groups of individuals; studies of infection in patients with hematological disorders; studies of HIV infection and psychological aspects of HIV infection in children and adolescents; studies of immune responses to vaccines in infants, children and adolescents.

Morbidity of children and adolescents and hospital care

Clinical studies of critically ill patients, especially those with oncologic diseases, renal diseases and those submitted to renal transplants.

Neonatal morbidity and neonatal care

Clinical studies of neonatology focusing on morbidity and mortality of critically ill newborn infants, neonatal care from delivery room to hospital discharge, neurobehavior of neonates, growth and development of the very low birthweight preterm infant up to adulthood.

Normal and pathological growth and development

Studies on body composition and nutritional aspects of children and adolescents, with emphasis on school children; studies on nutrition of children and adolescents and metabolic risk in adulthood; studies on growth and endocrine problems of patients treated for cancer in childhood.

Physiology and disorders of the gastrointestinal tract

Studies on infectious agents that affect the gastrointestinal tract; studies on absorptive and motility disorders; clinical studies on inflammatory bowel disease and celiac disease; studies on gastro-esophageal reflux.

Physiology and epidemiology of nutritional, hormonal and metabolism disorders

Studies on biochemical aspects of metabolism, bioenergetics and regulation of energy expenditure of children and adolescents; studies on epidemiology of nutritional problems of children and adolescents; studies of nutritional status for micronutrients and macronutrients.

Physiology and epidemiology of respiratory, allergic, immunological and inflammatory disorders

Clinical studies on characterization of immunodeficiencies, allergic and autoimmune diseases in children and adolescents; evaluation of pulmonary development of infants, children and adolescents with or without lung diseases; studies of rheumatologic, auto-immune and auto-inflammatory diseases in children and adolescents.

Selected publications

Baena-Cagnani CE, Larenas Linnemann D, Gómez M, et al. Allergy training and immunotherapy in Latin America: results of a regional overview. *Ann Allergy Asthma Immunol.* 2013;111:415-419.

Strufaldi MW, Puccini RF, Silvério OM, et al. Association of adipokines with cardiovascular risk factors in low birth weight children: a case-control study. *Eur J Pediatr.* 2013;172:71-76.

Palchetti CZ, Patin RV, Machado DM, et al. Body composition in prepubertal, HIV-infected children: a comparison of bioelectrical impedance analysis and dual-energy X-ray absorptiometry. *Nutr Clin Pract.* 2013;28:247-52.

Cintra Ide P, Ferrari GL, Soares AC, et al. Body fat percentiles of Brazilian adolescents according to age and sexual maturation: a cross-sectional study. *BMC Pediatr.* 2013 Jun 19;13:96.

Pacheco SL, Ogata SK, Machado RS, et al. Diagnosis of *Helicobacter pylori* infection by means of reduced-dose ¹³C-urea breath test and early sampling of exhaled breath. *J Pediatr Gastroenterol Nutr.* 2013;57:607-11.

Ortiz TT, Terreri MT, Caetano M, et al. Dyslipidemia in pediatric systemic lupus erythematosus: the relationship with disease activity and plasma homocysteine and cysteine concentrations. *Ann Nutr Metab.* 2013;63:77-82.

Tahan S, Melli LC, Mello CS, et al. Effectiveness of trimethoprim-sulfamethoxazole and metronidazole

in the treatment of small intestinal bacterial overgrowth in children living in a slum. *J Pediatr Gastroenterol Nutr.* 2013;57:316-8.

da Fonseca CR, Strufaldi MW, de Carvalho LR, et al. Adequacy of antenatal care and its relationship with low birth weight in Botucatu, São Paulo, Brazil: a case-control study. *BMC Pregnancy Childbirth.* 2014;14:255.

Sampaio SC, Moreira FC, Liberatore AM, et al. Analysis of the virulence of an atypical enteropathogenic *Escherichia coli* strain in vitro and in vivo and the influence of type three secretion system. *Biomed Res Int.* 2014;2014:797508.

Nobre FA, Gonzalez IG, Simão RM, et al. Antibody levels to tetanus, diphtheria, measles and varicella in patients with primary immunodeficiency undergoing intravenous immunoglobulin therapy: a prospective study. *BMC Immunol.* 2014;15:26.

de Castro MA, Verly E Jr, Fisberg M, et al. Children's nutrient intake variability is affected by age and body weight status according to results from a Brazilian multicenter study. *Nutr Res.* 2014;34:74-84.

Paulo LT, Len CA, Hilario MO, Pedrosa SA, Vitale MS, Terreri MT. Fatigue in children with juvenile idiopathic arthritis: reliability of the "Pediatric Quality of Life Inventory-Multidimensional Fatigue Scale". *Rheumatol Int.* 2015;35:133-9.

Mirabello L, Koster R, Moriarty BS, et al. A Genome-Wide Scan Identifies Variants in NFIB Associated with Metastasis in Patients with Osteosarcoma. *Cancer Discov.* 2015;5:920-31.

Draaisma E, Garcia-Marcos L, Mallol J, et al. A multinational study to compare prevalence of atopic dermatitis in the first year of life. *Pediatr Allergy Immunol.* 2015;26:359-66.

Martins AC, Silva GS, Adegoke SA, et al. An unexpected full neurological recovery after cardiac arrest in a sickle cell anemia patient with bilateral cervical carotid artery disease. *Rev Bras Hematol Hemoter.* 2015;37:272-4.

Ogata JF, Fonseca MC, de Almeida MF, et al. Antenatal corticosteroids: analytical decision model and economic analysis in a Brazilian cohort of preterm infants. *J Matern Fetal Neonatal Med.* 2016;29:2973-9.

Albuquerque FC, Bueno NB, Clemente AP, et al. Association between Adult Stature and Energy Expenditure in Low-Income Women from Northeastern Brazil. *PLoS One.* 2015;10:e0131891. doi: 10.1371/journal.pone.0131891.

Silveira JA, Colugnati FA, Poblacion AP, et al. The

role of exclusive breastfeeding and sugar-sweetened beverage consumption on preschool children's weight gain. *Pediatr Obes.* 2015;10:91-7.

Morishita R, Franco M do C, Suano-Souza FI, et al. Body mass index, adipokines and insulin resistance in asthmatic children and adolescents. *J Asthma.* 2016;53:478-84.

Caetano M, Terreri MT, Ortiz T, et al. Bone mineral density reduction in adolescents with systemic erythematosus lupus: association with lack of vitamin D supplementation. *Clin Rheumatol.* 2015;34:2065-70.

Cunegundes KS, de Moraes-Pinto MI, Takahashi TN, et al. Bordetella pertussis infection in paediatric healthcare workers. *J Hosp Infect.* 2015;90:163-6.

Guinsburg R, de Almeida MF, de Castro JS, et al. Death or survival with major morbidity in VLBW infants born at Brazilian neonatal research network centers. *J Matern Fetal Neonatal Med.* 2016;29:1005-9.

Bueno NB, de Melo IV, Florêncio TT, et al. AL. Dietary medium-chain triacylglycerols versus long-chain triacylglycerols for body composition in adults: systematic review and meta-analysis of randomized controlled trials. *J Am Coll Nutr.* 2015;34:175-83.

Books and chapters

Nutrição no paciente crítico. Heitor Pons Leite. 2013.

Prevenção das doenças alérgicas. Dirceu Solé. 2013.

Desnutrição e repercussões na saúde. Ana Lydia Sawaya. 2013.

Transplante renal pediátrico. Paulo Cesar Kock Nogueira. 2013.

Transporte neonatal. Ruth Guinsburg. 2013.

Tumores ósseos. Antonio Sergio Petrilli. 2013.

Recém-nascido premature. Heitor Pons Leite. 2013.

Tumores abdominais na infância. Eliana M.M. Caran. 2014.

Tumores de partes moles. Eliana M.M. Caran. 2014.

Deficiência de vitamina D em crianças e adolescentes. Roseli O.S.Sarni. 2014.

Refluxo gastroesofágico no lactente. Elisabete Kawakami. 2014.

Doença falciforme. Josefina A.P. Braga. 2014.

Avaliação de distúrbios do crescimento. Rosana F. Puccini. 2015.

Vírus da imunodeficiência humana (HIV). Maria

Suely B. Diógenes. 2015.

Thiamine (vitamin B1) deficiency in intensive care physiology, risk factors, diagnosis and treatment. Heitor Pons Leite. 2015.

Como gerenciar um programa de asma na escola. Marilyn Urrutia-Pereira. 2015.

Diagnóstico diferencial das dores em membros em pediatria – Programa nacional de educação continuada em Pediatria. Cláudio Arnaldo Len. 2015.

Rinite alérgica – visão do alergista – Gustavo F. Wandalsen. 2015.

Grants

Department of Nutritional Sciences State University of New Jersey, Profa Dra Ana Lydia Sawaya.

Pediatric Rheumatology International Organization (Itália). Prof Dr Cláudio Arnaldo Len.

Children's Hospital of Los Angeles. Prof Dr Cláudio Arnaldo Len.

Pediatric Pneumology Division of Hospital El Pino, Santiago, Chile. Profs Drs Dirceu Solé e Gustavo F. Wandalsen.

University of Murcia, Spain. Profs Drs Dirceu Solé and Gustavo F. Wandalsen

University of Surrey. Prof Dr. Mauro Fisberg.

University of Zaragoza, Spain. Prof Dr Mauro Fisberg.

International Danone Institute. Prof Dr Mauro Fisberg.

University of Munick, Germany. Prof Dr Mauro Fisberg.

Emory University and Department of Clinical Laboratory and Nutrition Sciences. Prof Dr. Mauro Fisberg.

Claude Bernard Lyon University. Prof Dr Paulo César Koch Nogueira.

University of California. Profas Dras Regina Célia de Menezes Succi and Daisy Maria Machado.

National Institute of Health (NIH). Profas Dras Regina Célia de Menezes Succi and Daisy Maria Machado.

University of Montreal. Profas Dras Regina Célia de Menezes Succi and Daisy Maria Machado.

Lausane Health Institute. Profas Dras Regina Célia de Menezes Succi and Daisy Maria Machado.

Valderbilt University. Profas Dras Regina Célia de Menezes Succi and Daisy Maria Machado.

Neonatal Task Force – International Liasion Committee on Resuscitation. Profas Dras Ruth Guinsburg and Maria Fernanda Branco de Almeida.

Duke University. Profas Dras Ruth Guinsburg and Maria Fernanda Branco de Almeida.

Fundacion para la Salud Materno Infantil (FUNDASAMIN). Profas Dras Ruth Guinsburg and Maria Fernanda Branco de Almeida.

Jeffrey Model Foundation. Profa Dra Beatriz Tavares Costa-Carvalho.

Latin American Registry on Primary Immunodeficiencies. Profa Dra Beatriz Tavares Costa-Carvalho.

PhD Thesis (2015)

Cristiane Ribeiro Ambrósio. Opinions and profiles of Brazilian pediatricians, instructors of neonatal resuscitation, regarding the practices of resuscitation in the delivery room in extreme premature infants. Supervisor: Ruth Guinsburg.

Deyse Helena Fernandes da Cunha. Quality of life of the medical students of the Escola Paulista de Medicina – Universidade Federal de São Paulo. Supervisor: Amelia Miyashiro Nunes dos Santos.

Ho Chi Hsien. Angiotensin converting enzyme in sickle cell disease. João Tomas de Abreu Carvalhaes.

Jackeline Motta Franco. Cow's milk allergy: new cut-offs. Supervisor: Dirceu Solé.

Jonas Augusto Cardoso da Silveira. Sociobiological determinants of nutritional disorders in preschool children – National Survey of Demography and Child and Women's Health (PNDS) – 2006/07. Supervisor: José Augusto de Aguiar Carrazedo Taddei.

Joyce Liberali. Physiotherapy performance in neonatal intensive care units in the city of São Paulo. Supervisor: Amelia Miyashiro Nunes dos Santos.

Juliana Molina. Functional magnetic resonance imaging of adolescents with idiopathic musculoskeletal pain. Supervisor: Claudio Arnaldo Len.

Ligia Cristina Fonseca Lahoz Melli. Fecal microbiota and allergic diseases in schoolchildren from the Metropolitan Region of São Paulo. Supervisor: Mauro Batista de Moraes.

Nassib Bezerra Bueno. Differences between low overweight / obese women and their peers without short stature before and after weight loss. Supervisor: Ana Lydia Sawaya.

MSc Thesis (2015)

Aline Ladeira de Carvalho. Nutritional status in iron, hepcidin and marker of inflammation in overweight adolescents. Supervisor: Olga Maria Silverio Amancio.

Ana Paula Sakamoto. A multicentric study of juvenile systemic lupus erythematosus and its rare manifestations: chronic arthritis and digital vasculitis. Supervisors: Maria Teresa de Sande e Lemos Ramos Ascensão Terreri.

Bruno Faria. Circumference of the neck and its association with cardiovascular risk factors in adolescents. Supervisor: Paulo Cesar Koch Nogueira.

Camila Teles Machado Pereira. Expression of CD40 and CD40-L and production of cytokines in patients with ataxia telangiectasia. Supervisor: Beatriz Tavares Costa Carvalho.

Cristiane Akemi Koyama Wallau. Impact of the bundle on the incidence of intraventricular hemorrhage in preterm infants. Supervisor: Ruth Guinsburg.

Daisy Oliveira Costa. Mental disorders during pregnancy and newborn conditions: longitudinal study with pregnant women assisted in basic care in the city of Embu das Artes. Supervisor: Maria Wany Louzada.

Juliana Bergamo Veja. Consumption of soft drinks and artificial juices by Brazilian preschoolers in 2006. Supervisor: José Augusto de Aguiar Carrazedo Taddei.

Livia de Freitas Keppeke. Psycho-cognitive aspects of caregivers of pediatric patients with chronic rheumatic diseases and their relation to treatment adherence. Supervisor: Claudio Arnaldo Len.

Ludimilla Scodeler de Camargo. Analysis of the evolution of the nutritional status of infants with allergic proctocolitis. Supervisor: José Augusto de Aguiar Carrazedo Taddei.

Margareth Gurgel de Castro Silva. Effects of the Kangaroo method on the neurobehavioral responses of preterm newborns. Supervisor: Marina Carvalho de Moraes Barros.

Marina Neto Rafael. Evaluation of non-alcoholic fatty liver disease in patients with ataxia-telangiectasia: association with biomarkers related to glucose metabolism. Supervisor: Beatriz Tavares Costa Carvalho.

Marynea do Valle Nunes. Impact of a package of measures on the prevention of hypothermia of the preterm newborn from birth to admission to the neonatal unit. Supervisor: Maria Fernanda Branco de Almeida.

Renata Cavalcante Kuhn dos Santos. Nutritional status of children from 5 to 10 years of age with low birth weight in the city of Embu das Artes (SP). Supervisor: Maria Wany Louzada.

Talita Lemos Paulino. Evaluation of carotid intima-media thickness.

ma-media thickness in patients with ataxia telangiectasia: association with biomarkers related to lipid metabolism and glucose. Supervisor: Roseli Oselka Saccardo Sarni.

Prizes

National

57th Jabuti Award – Câmara Brasileira do Livro. Ana Lydia Sawaya.

Honorable Mention – Federação de Sociedades de Biologia Experimental. Ana Lydia Sawaya.

Oliveira Lima Award – Brazilian Congress of Allergy and Immunopathology. Title: Reações adversas à imunoglobulina humana endovenosa no tratamento de pacientes com imunodeficiência primária. Student: Danielle Bichuette. Supervisor: Beatriz Costa Tavares.

3rd place poster presentation, 5th Symposium of Neonatal Resuscitation – Ensino da reanimação neonatal para parteiras tradicionais, Sociedade Brasileira de Pediatria. Maria Fernanda Branco de Almeida e Ruth Guinsburg.

Nicola Albano Award in 22nd Brazilian Congress of Perinatology and 9th International Symposium of Fetal Medicine. Title: Asfixia ao nascer e mortalidade neonatal precoce no Brasil e em recém-nascidos de muito baixo peso: série temporal, Sociedade Brasileira de Pediatria. Maria Fernanda Branco de Almeida e Ruth Guinsburg.

Eliete Solomon Tudisco Award – Academic Area, Conselho Regional de Nutricionistas, 3ª região. Olga Maria Silverio Amancio

International

First Place Poster Presentation – XVII Latin American Congress of Allergy, Asthma and Immunology. Title: Los médios sociales em El monitoreo de niños atendidos em un servicio especializado: La expectativa de los padres y cuidadores. Dirceu Solé.

Other information

The Postgraduate Program in Pediatrics and Sciences Applied to Pediatrics has produced more than 660 Master theses and more than 270 PhD theses. Currently the Program has approximately 124 Master and PhD students, 10 undergraduates, 02 visiting professors and 03 Post-Doctoral fellows.

Financial support

Fapesp, Capes, CNPq.

Facilities

Please see <http://www.pediatria.unifesp.br/pos-graduação/>

Medicine (Pulmonology)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/pneumologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1428

Coordinator

Luiz Eduardo Nery

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Historical background

The Postgraduate Program in Pulmonology at Federal University of São Paulo – Escola Paulista de Medicina (EPM) was accredited in 1975 as the first program in Brazil to offer a PhD in the respiratory area. In the first 15 years of its existence, the Program fulfilled its role to set Respiratory Physiology and Medicine as a structured research field within Brazilian universities. It pioneered the establishment of a Large Animal Experimental Laboratory, in which models of Acute Respiratory Failure were studied. The Pulmonary Function and the Clinical Exercise Physiology Laboratories were the first in Brazil to do more complex functional assessments. During that period, many professors teaching courses in the Program left to pursue post-doctoral training abroad, then returned to join the faculty of the Program permanently. In 1991 the Program was opened to other health professionals in addition to medical health professionals. That approach, now fully im-

plemented, was innovative at that time, and allowed the formation of multi-professional research teams, including members from the related fields of Physical Therapy, Nutrition, Nursing, Psychology, Biology, Dentistry, Engineering, and Biomedicine. The main lines of research were established in the 1980's. From its creation through 2015, the Program has trained more than 300 graduate students (166 MSc and 139 PhD). In 2015, four MSc, three PhD and one post-doctoral fellow received their degrees. The Program now has 13 faculty members (5 of them admitted in the last 2 years). Most of the professors and researchers in the respiratory area currently active in universities and research centers in our country received training through our Program.

The fundamental objectives of the Program are: (i) training of professionals qualified for teaching and research in science, focusing not only on the respiratory tract, but with strong interdisciplinary participation; (ii) establishment of innovative lines of research, with special reference to pathophysiological and epidemiological aspects of lung diseases and related topics, and (iii) creation and dissemination of original scientific knowledge, within a perspective of cooperation and integration with national and international research centers.

Research focus

1. Clinical, epidemiological, pathophysiological and molecular bases of obstructive diseases and respiratory infection
2. Pathophysiological characterization, diagnostic and epidemiological markers of interstitial lung diseases
3. Pathophysiological characterization, diagnostic and epidemiological markers of diseases of pulmonary circulation
4. Physiology and pathophysiology of cardiorepiratory and metabolic diseases during exercise
5. Epidemiology and prognostic factors of lung cancer

6. Evaluation of surgical risk

7. Respiratory disorders and sleep

Selected publications

Noble Paul W, Albera Carlo, Bradford Williamson Z, Costabel Ulrich, Du Bois Roland M, Fagan Elizabeth A, Fishman Robert S, Glaspole Ian, Glassberg Marilyn K, Lancaster Lisa, Lederer David J, Leff Jonathan A, Nathan Steven D, Pereira Carlos A, Swigris Jeffrey J, Valeyre Dominique, King Talmadge E. Pirfenidone for idiopathic pulmonary fibrosis: analysis of pooled data from three multinational phase 3 trials. *The European Respiratory Journal*, v. 47, p. 243-253, 2015.

Herbela FAM, Pannocchia Neto S, Lopes SI, Figueiredo LC. Gastroesophageal reflux disease and non-esophageal cancer. *World Journal of Gastroenterology*, 21, p. 815-819, 2015.

Colucci DBB, Faresin SM, Chiavegato LD. Cough impairment and risk of postoperative pulmonary complications after open upper abdominal surgery. *Respiratory Care*, V.60, Pg 673-678, 2015.

Oliveira MG, Bittencourt LR, Togeiro SM. Diagnostic accuracy of home-based monitoring system in morbidly obese patients with high risk for sleep apnea. *Obesity Surgery*, 2015. 25(5):845-51. doi: 10.1007/s11695-014-1469-6.

Luz GP, Nery LE, Bittencourt, LR. Impaired sustained attention and lapses are present in patients with mild obstructive sleep apnea. *Sleep&Breathing*, 2015. 20(2):681-7. doi: 10.1007/s11325-015-1279-7.

Amorim MM, Fernandes PB, Lima D, Samir S, Lopes I, Fernandes ALG. Nasal lavage is better than blood count in predicting sputum eosinophilia. *Clinical and Experimental Allergy*, 2015.

Oliveira R, Pereira CAC, Ferreira E, Arakaki JSO, Pulcheri RPA. Haemodynamic study of pulmonary hypertension in chronic hypersensitivity pneumonitis. *The European Respiratory Journal*, v.44, 415-424, 2014. 45(5):1006-8. doi: 10.1111/cea.12512.

Dracoulakis S, Fernandes ALG, Santoro IL, Faresin SM, Ballini L, Amorim MM. Bronchodilator response as a hallmark of uncontrolled asthma: a randomised clinical trial. *The Journal of Asthma*, V.1, pg 1- 6, 2014.

Valois FM, Nery LE, Neder JA, Arakaki JSO, Ferreira E, Ramos RP. Contrasting cardiopulmonary responses to incremental exercise in patients with schistosomiasis-associated and idiopathic pulmonary arterial hypertension with similar resting hemodynamic impairment. *Plos One*, V.9, e87699, 2014.

Pradella CO, Belmonte GM, Maia MN, Delgado CS, Luise APT, Nascimento AO, Gazzotti MR, Jardim J. Home-Based Pulmonary Rehabilitation for Subjects With COPD: A Randomized Study. *R. Respiratory Care*, 2014.

Cooper CB, Celli Bartolome R, Jardim JR, Wise RA, Legg D, Guo J, Kesten S. Treadmill endurance during 2-year treatment with tiotropium in patients with COPD: a randomized trial. *Chest*, v. 144, p. 490-497, 2013.

Ramos RP, Neder JA, Ferreira E, Arbex FF, Nomam, MCN. Clinical usefulness of response profiles to rapidly incremental cardiopulmonary exercise testing – Pulmonary medicine, *Pulmonary Medicine*, 1-25 2013.

Ramos RP, Neder JA, Nery LE, Ferreira E, Arakaki JSO. Exercise oxygen uptake efficiency slope independently predicts poor outcome in PAH. *The European Respiratory Journal* – V.53 PG.1510, 2013.

Oliveira MF, Neder J, Arbex FF, Alencar MCN, Borghi-Silva A. Heart failure impairs cerebral oxygenation during exercise in patients with COPD. *The European Respiratory Journal*, V. 42; 14231426, 2013.

Books and chapters

Guias de Medicina Ambulatorial e Hospitalar da EPM, Unifesp – Pneumologia. 2 Ed., 2014 Edit. Faresin S. et al, Manole, São Paulo, SP.

Atualização Terapêutica- Diagnóstico e Tratamento, 2014-2015. Ed. Prado, Ramos e Valle, Artes Médicas, São Paulo, SP.

Doenças do Trato Respiratório – Section Coordinator : Nery LE.

From 2013 a 2015 around 60 book chapters were published in our Program.

See Capes Report and Curriculum Lates of Professors from Respiratory Division.

Medicina Respiratória. 1. ed. São Paulo: Atheneu, 2014. v. 2. 1638p Pereira, CA e Holanda MA.

Grants

Fapesp and CNPQ:

Profa. Ana Luisa Godoy Fernandes, Prof. Bruno Miranda Silva, Prof. José Alberto Neder, Prof. José Roberto Jardim, Profa. Lia Rita Bittencourt and Prof. Luiz Eduardo Nery.

Pharmaceutical Laboratories (for clinical research in asthma, COPD, oncology and pulmonary hypertension):

AL Fernandes, I Santoro, JR Jardim, JSO Arakaki, O Nascimento.

Capes (supporting post-doctoral fellows):

Profas. M.R. Gazzotti and E.M. Ferreira

PhD Thesis (2015)

Flávio Ferlin Arbex – Impact of heart failure with reduced left ventricular ejection fraction on exercise responses in patients with COPD. – Supervisor: José Alberto Neder.

Mayron Faria de Oliveira – Muscle blood flow and oxygenation during exercise in COPD – Heart failure overlap. Supervisor: José Alberto Neder.

Maria Clara Noman de Alencar – Role of resting echocardiogram and cardiopulmonary exercise testing in prognostic evaluation of COPD-HF overlap. Supervisor: José Alberto Neder.

MSc Thesis (2015)

Melline Della Torre de Almeida – Analysis of energy expenditure in the activities of daily living (ADLS) in patients with idiopathic pulmonary arterial hypertension (IPAH). Supervisor: Jaquelina Sonoe Ota Arakaki.

Ana Carolina Carvalho Pinto – Reproducibility study of standardized activities of daily living in patients with chronic obstructive pulmonary disease (COPD). Supervisor: Mariana Rodrigues Gazzotti

Beatriz Cyrillo Amorim – A 4-min self-paced step test to assess exercise impairment in copd patients. Supervisor: José Alberto Neder.

Aline Dias Brandão – Translation and cultural adaptation of quality of life questionnaire in the stroke –SIS – Stroke Impact Scale – 2.0. Supervisor: Mariana Rodrigues Gazzotti

International cooperations

Members of the Program have performed, and continue to perform, research studies in collaboration with several Brazilian and International scientists. Below is a list some of our recent international collaborators:

Prof. Dennis O'Donnell – University of Kingston, Canada.

Prof. Jose Alberto Neder – University of Kingston, Canada

Prof. Nestor Muller – Prof. Emeritus, Univ. Of British Columbia, Canada

Prof. IoannisVogiatziz, National and Kapodistri-an Univ. Of Athens, Greece

Prof. Dr Marc Miravittles – Hospital Clínic, Barcelona, Spain

Prof. Sue Ward – Prof. Emeritus, Univ. of Leeds, UK

Prof. Bart Celli – Harvard University, USA

Prof. Doug Mc Evoy – University of Flinders, Australia

Prof. Douglas Bradley – University of Toronto, Canada

Prof. Allan Pack – University of Pennsylvania, USA

Prizes

Faculty members in the Program have received many awards, including awards for their research studies, as presented at meetings and as published papers, laboratory certification, honorary awards from graduating EPM classes and from the Brazilian Book Chamber, and honorary research fellowships.

Financial support

CNPq, Fapesp, Capes, and Pharmaceutical Companies.

Facilities

Please see <http://www2.unifesp.br/dmed/pneumo/posgraduacao.htm>.

Other information

Development of research equipment

- (i) Metabolic System with Expired Gas Mixing Chamber utilized in the first studies of the Clinical Exercise Laboratory of the Respiratory Division,
- (ii) Pneumatic Shutter to measure neuro respiratory muscle control during exercise (Occlusion Pressure)

Community outreach

In addition to participating in teaching, academic research and patient care, professors in the Program are involved in several community outreach activities, including (i) participation in professional associations such as the Paulista and Brazilian Societies of Pneumology, (ii) presentation of structured programs addressing topics in Respiratory Medicine, including Education in Asthma, Smoking Cessation, and Pulmonary Function Tests, (iii) formation of guidelines and consensus for scientific societies and government agencies, (iv) “Ad hoc” consulting for various government agencies (CNPq, Capes, Fapesp), (v) consulting with the Secretary of Health of São Paulo to establish technical standards for home oxygen use, respiratory physiotherapy, inhalation therapy and pulmonary function tests, (vi) consulting with the Public Ministry of the State of São Paulo to establish diagnostic criteria for Pneumoconiosis and (vii) recruitment of graduate students from other Brazilian Universities, through agreements with Unifesp.

Medicine (Urology)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/urologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1429

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Historical background

The Postgraduate Program in Urology was founded in 1978. In 1999 the Program was opened to professionals from other health science backgrounds in addition to medical doctors. The main objective of the Program is to provide an environment where translational research can be done. To meet this goal we recruit students from a variety of disciplines and with a variety of experience, including basic science, clinical science and surgical intervention. We are committed to the training of science-oriented researchers, with emphasis on scientific method, resource management in research, a multidisciplinary approach to research, and meaningful cross-talk between clinical and basic scientists. This approach has boosted our national and international partnerships over the past decade, and strongly increased our capacity to graduate researchers able to think critically about scientific issues in the field of Urology.

Research focus

Morphofunctional and Biotechnological Urogenital Development: stem cell generation and scaffold development for the development of novel therapeutic options in male and female voiding dysfunction.

Oncogenesis and Tumor Markers: molecular and cell biology of urological tumors, and impact of cancer treatment on these mechanisms.

Human Reproduction and Andrology: molecular and cellular mechanisms of male and female infertility, as well as on embryo development.

Selected publications

Burti JS, Hacad CR, Zambon JP, Polessi EA, Almeida FG. Is there any difference in pelvic floor muscles performance between continent and incontinent women? *Neurourol Urodyn*. 2015 Aug;34(6):544-8. doi: 10.1002/nau.22613. Epub 2014 Apr 23.

Cordeiro FB, Cataldi TR, do Vale Teixeira da Costa L, de Lima CB, Stevanato J, Zylbersztejn DS, Ferreira CR, Eberlin MN, Cedenho AP, Turco EG. Follicular fluid lipid fingerprinting from women with PCOS and hyper response during IVF treatment. *J Assist Reprod Genet*. 2015 Jan;32(1):45-54. doi: 10.1007/s10815-014-0375-0. Epub 2014 Nov 6.

Cordeiro FB, Cataldi TR, Perkel KJ, do Vale Teixeira da Costa L, Rochetti RC, Stevanato J, Eberlin MN, Zylbersztejn DS, Cedenho AP, Turco EG. Lipidomics analysis of follicular fluid by ESI-MS reveals potential biomarkers for ovarian endometriosis. *J Assist Reprod Genet*. 2015 Dec;32(12):1817-25. doi: 10.1007/s10815-015-0592-1. Epub 2015 Oct 26.

Egydio FM, Freitas Filho LG, Sayeg K, Laks M, Oliveira AS, Almeida FG. Acellular human glans extracellular matrix as a scaffold for tissue engineering: in vitro cell support and biocompatibility. *Int Braz J Urol*. 2015 Sep-Oct;41(5):990-1001. doi: 10.1590/S1677-5538.IBJU.2014.0422.

Intasqui P, Antoniassi MP, Camargo M, Nichi M, Carvalho VM, Cardozo KH, Zylbersztejn DS, Bertolla RP. Differences in the seminal plasma proteome are associated with oxidative stress levels in men with normal semen parameters. *Fertil Steril*. 2015 Jun 2. pii: S0015-0282(15)00311-8. doi: 10.1016/j.fertnstert.2015.04.037. [Epub ahead of print]

Regiani T, Cordeiro FB, da Costa LD, Salgueiro J, Cardozo K, Carvalho VM, Perkel KJ, Zylbersztejn DS, Cedenho AP, Lo Turco EG. Follicular fluid alterations in endometriosis: label-free proteomics by MS(E) as a functional tool for endometriosis. *Syst Biol Reprod Med*. 2015 Jun 26;1-14. [Epub ahead of print]

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Grants

Identificação de potenciais biomarcadores de disfunção testicular em adolescentes com varicocele. Agnaldo P. Cedenho. 2014

Efeito da Fragmentação de DNA espermático no perfil lipídico de blastocisto de murinos. Agnaldo P. Cedenho. 2014

Pesquisa de biomarcadores proteicos para o sucesso da fertilização in vitro através da análise proteômica do meio de cultura. Deborah M. Spaine. 2014

Determinação do perfil lipídico do líquido folicular e plasma sanguíneo de mulheres com e sem síndrome dos ovários policísticos submetidas ao tratamento de fertilização in vitro. Edson G. Lo Turco. 2013.

Desenvolvimento de uma matriz acelular derivada de bexiga urinária de ratos. Fernando G. de Almeida. 2013.

Efeito do Hormônio Luteinizante (LH) adicionado ao estímulo ovariano no Perfil Lipídico de Células do cumulus e plasma sanguíneo de mulheres em tratamento para infertilidade. Renato Fraietta. 2013.

Identificação de potenciais biomarcadores para diagnóstico e tratamento de infertilidade masculina: um estudo proteômico e lipidômico de plasma seminal e espermatozoides. Ricardo P. Bertolla. 2012.

Análise proteômica confirmatória de biomarcadores de alterações funcionais dos espermatozoides e estresse oxidativo seminal. Ricardo P. Bertolla. 2015.

PhD Thesis (2015)

Marcelo Rodrigues Cabrini. Fibrotic protein expression profiles in penile tissue of patients with erectile dysfunction. Supervisor: Cassio Andreoni.

Marcela Leal da Cruz. Urological evaluation of patients that had undergone in utero myelomeningocele repair: a prospective study. Supervisor: Antônio Macedo Jr.

Valeria Barradas. Seminal oxidative stress in adolescents with varicocele. Deborah M. Spaine.

Jhonson Joaquim Gouvea. Quality of life in patients who underwent sex reassignment surgery with corpora cavernous preservation. Supervisor: Antônio Macedo Jr.

Barbara Ferreira da Silva. Mass spectrometry based molecular analysis of seminal plasma from spinal cord injured patients: quantitative proteomics and phosphoproteomics. Supervisor: Ricardo P. Bertolla.

MSc Thesis (2015)

Paola Cristine Ferigolo. The impact of obesity on sperm functional quality and semen proteomic mechanisms. Supervisor: Renato Fraietta.

Thais Caroline Garcia Aguiar Santos. Influence of murine sperm DNA fragmentation in the metabolic profile of blastocyst culture medium. Supervisor: Edson G. Lo Turco.

Mariana Rhein Felipe. Impact of urinary incontinence on female sexuality. Supervisor: Fernando G. de Almeida.

International cooperations

University of Miami – Miller School of Medicine (The Miami project to cure paralysis) – Dr. Nancy Brackett, Dr. Charles Lynne, Dr. Ibrahim Emad.

Technical University of Munich (TUM) – Chair of Proteomics and Bioanalytics. Dr. Bernhard Kuster
Leipzig University – Institute of Medical Physics and Biophysics. Dr. Ricardo P. Bertolla. Dr. Jürgen Schiller.

University of Oklahoma. Department of Urology – Physiology/Pharmacology, Wake Forest University/Wake Forest Institute for Regenerative Medicine – Winston Salem.

Department of Chemistry, Purdue University. Dr. R. Graham Cooks.

Cleveland Clinic – Andrology Center. Dr. Ashok Agarwal.

Prizes

2016 Lalor Foundation International Trainee Travel Award: Cysteine-rich secretory protein 3 (CRISP-3) is a candidate biomarker of testicular dysfunction in adolescents with varicocele. In: American Society of Andrology 41st Annual Conference, 2016, New Orleans. *Andrology* (2016); 4:38.

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41st Annual Conference, 2016, New Orleans. *Andrology* (2016); 4:74.

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2006 Prize paper: Does Varicocele Size Exert Deleterious Effect on Spermatogenesis in Adolescents? Society for Male Reproduction and Urology. In: 62th Annual Meeting of the American Society for Reproductive Medicine (ASRM), 2006, New Orleans. *Fertility and Sterility* (2006); 86:S359.

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Financial support

Fapesp, Capes, CNPq, Fleury Group.

Patents

Silva, I. D. C. G. ; The Turkish, E. G. Biomarker for assessing breast cancer. 2014, Brazil. Patent: Utility Model. Record number: 14184200.5, date of deposit: 10/29/2014, title: “Biomarker for assessing breast cancer”, Institution of registry: European Patent Office.

Lo Turco, E. G. ; Silva, I. D. C. G. ; Dias, RS. Biomarker for assessing HIV. 2014, Brazil. Patent: Utility Model. Registration number: 14001259.2, date: 04/04/2014, title: “Biomarker for assessing HIV”, Institution of registration: German Patent and Trademark Office.

Turco, E. G. L. ; Lopes, P. H. C. ; Bertolla, R. P. ; Cedenho, A. P. In vitro mammalian fertility evaluation, diagnostic kit and molecular fertility markers. 2008, Brazil. Patent: Privilege of Innovation. Record number: PI0804358-2, date of deposit: 11/14/2008,

Ophthalmology and Visual Sciences

PhD and MSc Degrees

Home page

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Historical background

The Postgraduate Program in Ophthalmology was established in 1979, with the goal of training professors and researchers in vision and ophthalmology processes as a whole. The Program has awarded over 174 masters and 508 doctoral degrees.

The Program has one of the best reputations among graduate programs in Ophthalmology and Visual Sciences in Brazil and, with the recent achievement of the highest rating by Capes it maintains an exclusive leadership position in Brazil, with performance comparable to the most important international education and research centers.

The Program offers two courses: Ophthalmology, geared toward physicians who are experts in

the area of ophthalmology and Visual Sciences, geared toward superior degree professionals, e.g., ophthalmology technologists, psychologists, biologists, nurses, and others involved and interested in the area.

Both courses are offered in the academic master's degree, doctor's degree and post-doctoral degree modalities. The first two modalities include two categories: post-graduates in probation, who are developing fundamental skills and knowledge but are not officially enrolled with Unifesp, and post-graduates officially enrolled with Unifesp.

Currently, the Program boasts 25 professors accredited by Unifesp and available to advise students.

Research focus

Research Focus in Visual Science

Evaluation of visual function by psychophysical and electrophysiological methods.

Virtual medicine applied to learning and improving the diagnosis and management of eye disease.

Biopsychosocial protocols in ophthalmology.

Research Focus in Diagnostic Methods

Use of bioengineering to develop new technologies in ophthalmology.

Functional and anatomical diagnosis of retinal ganglion cells.

Research Focus in Intervention Protocols

Assessment of the intraocular inflammation mediated response.

Bioengineering of the ocular surface.

Use of pharmacology and photodynamics to inhibit retinal and sub-retinal neovascular proliferation.

Anatomic and optics quality indicators of the eye's anterior segment and its annexes.

Morphofunctional responses of the host to drug interactions.

Research Focus in Physiopathogenesis

Molecular biology applied to pathophysiology of eye expansive processes.

Molecular biology applied to identification of pathogens of the anterior segment of the eye.

Biochemistry applied to ophthalmology and visual sciences.

Study of prevalence and frequency of visual disturbances and prevention and management promotion measures.

Translational research in visual sciences and clinical and surgical Ophthalmology.

Selected publications

Discriminant Value of Custom Ocular Response Analyzer Waveform Derivatives in Forme Fruste Keratoconus. Luz A, Lopes B, Hallahan KM, Valbon B, Fontes B, Schor P, Dupps WJ Jr, Ambrósio R Jr. *Am J Ophthalmol*. 2016 Apr;164:14-21. doi: 10.1016/j.ajo.2015.12.020.

Effect of Topical Tacrolimus in the Treatment of Thygeson's Superficial Punctate Keratitis. Marquezan MC, Nascimento H, Vieira LA, Serapião M, Ghanem RC, Belfort R Jr, Freitas D. *Am J Ophthalmol*. 2015 Oct;160(4):663-8. doi: 10.1016/j.ajo.2015.06.019.

Frequency Doubling Technology Perimetry and Changes in Quality of Life of Glaucoma Patients: A Longitudinal Study. Abe RY, Gracitelli CP, Diniz-Filho A, Zangwill LM, Weinreb RN, Medeiros FA. *Am J Ophthalmol*. 2015 Jul;160(1):114-122.e1. doi: 10.1016/j.ajo.2015.04.007.

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Evaluation of Postural Control in Patients with Glaucoma Using a Virtual Reality Environment. Diniz-Filho A, Boer ER, Gracitelli CP, Abe RY, van Driel N, Yang Z, Medeiros FA. *Ophthalmology*. 2015 Jun;122(6):1131-8. doi: 10.1016/j.ophtha.2015.02.010.

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The Impact of Location of Progressive Visual Field Loss on Longitudinal Changes in Quality of Life of Patients with Glaucoma. Abe RY, Diniz-Filho A, Costa VP, Gracitelli CP, Baig S, Medeiros FA. *Ophthalmology*. 2016 Mar;123(3):552-7. doi: 10.1016/j.ophtha.2015.10.046.

Association between the percent tissue altered and post-laser in situ keratomileusis ectasia in eyes with normal preoperative topography. Ambrósio R Jr, Dawson DG, Belin MW. *Am J Ophthalmol*. 2014 Dec;158(6):1358-9. doi: 10.1016/j.ajo.2014.09.016.

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Efficient mitochondrial biogenesis drives incomplete penetrance in Leber's hereditary optic neuropathy. Giordano C, Iommarini L, Giordano L, Maresca A, Pisano A, Valentino ML, Caporali L, Liguori R, Deceglie S, Roberti M, Fanelli F, Fracasso F, Ross-Cisneros FN, D'Adamo P, Hudson G, Pyle A, Yu-Wai-Man P, Chinnery PF, Zeviani M, Salomao SR, Berezovsky A, Belfort R Jr, Ventura DF, Moraes M, Moraes Filho M, Barboni P, Sadun F, De Negri A, Sadun AA, Tancredi A, Mancini M, d'Amati G, Loguercio Polosa P, Cantatore P, Carelli V. *Brain*. 2014 Feb;137(Pt 2):335-53. doi: 10.1093/brain/awt343.

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Dupps WJ Jr. *Ophthalmology*. 2014 Feb;121(2):459-68. doi: 10.1016/j.ophtha.2013.09.013.

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Retroprosthetic membrane and risk of sterile keratolysis in patients with type I Boston Keratoprosthesis. Sivaraman KR, Hou JH, Allemann N, de la Cruz J, Cortina MS. *Am J Ophthalmol*. 2013 May;155(5):814-22. doi: 10.1016/j.ajo.2012.11.019

Efficient mitochondrial biogenesis drives incomplete penetrance in Leber's hereditary optic neuropathy. Giordano C, Iommarini L, Giordano L, Maresca A, Pisano A, Valentino ML, Caporali L, Liguori R, Deceglie S, Roberti M, Fanelli F, Fracasso F, Ross-Cisneros FN, D'Adamo P, Hudson G, Pyle A, Yu-Wai-Man P, Chinnery PF, Zeviani M, Salomao SR, Berezovsky A, Belfort R Jr, Ventura DF, Moraes M, Moraes Filho M, Barboni P, Sadun F, De Negri A, Sadun AA, Tancredi A, Mancini M, d'Amati G, Loguercio Polosa P, Cantatore P, Carelli V. *Brain*. 2014 Feb;137(Pt 2):335-53. doi: 10.1093/brain/awt343.

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Association between rates of binocular visual field loss and vision-related quality of life in patients with glaucoma. Lisboa R, Chun YS, Zangwill LM, Weinreb RN, Rosen PN, Liebmann JM, Girkin CA, Medeiros FA. *JAMA Ophthalmol*. 2013 Apr;131(4):486-94. doi: 10.1001/jamaophthalmol.2013.2602.

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Books and chapters

- Retinal Pharmacotherapeutics (Developments in Ophthalmology, Vol. 55) 1st Edition, 2015 ISBN – 978-3318055641, Eduardo Buchele Rodrigues.

- Stem Cells in Ophthalmology, 2015, ISBN – 9789962678762, Jose Alvaro Pereira Gomes.

- Atlas de Doenças de Mácula – 1ª EDIÇÃO, 2015, ISBN – 978-85-352-8336-5, Eduardo Buchele Rodrigues e Michel Eid Farah.

- Uveítes y Escleritis – Diagnóstico y Tratamiento, 2014, ISBN – 9788489085565, Rubens Belfort Jr.

- Tratado Brasileiro de Catarata e Cirurgia Refrativa, 2014, ISBN – 9788570066435, Paulo Augusto de Arruda Mello.

- Cirugía Vitreoretinal Mínimamente Invasiva, 2014, ISBN – 9789962678731, Michel Eid Farah

- Yanoff and Duker: Ophthalmology, 2013, ISBN – 9781455739844, Norma Allemann.

- Farmacologia e Terapêutica Ocular, 2013, ISBN – 857006571X, Augusto Paranhos Jr.

- Copeland and Afshari's Principles and Practice of Cornea, 2013, ISBN – 9789350901724, Wallace Chamon.

- Cornea, 3rd Edition, Jay H. Krachmer, MD, Mark J Mannis, MD, FACS MD, FACS and Edward J

Holland, MD, ISBN: 978-0-323-06387-6, Denise de Freitas e Luciene Sousa.

Grants

Structural modification, physicochemical characterization and biological tests of Biomaterials and Tissue for Ophthalmic Use, Paulo Schor – Fapesp – 2012/07343-8

Applicability dye composed of anthocyanins and proanthocyanidins fruit Acai (*Euterpe orelacea*) in chromovitrectomy in humans, Eduardo Buchele Rodrigues – Fapesp – 2014/07686-8

Toxins such as *Acanthamoeba* spp virulence factors in ocular surface infections, Fábio Ramos de Souza Carvalho – Fapesp – 2011/51626-1

Ocular study of the Brazilian Amazon Region (The Brazilian Amazon Region Eye Survey – Bares): Prevalence and Causes Vision Of Disability To Near And Far And Blindness, Solange Rios Salomão – CNPq – 402120/2012-4

Anthocyanins and proanthocyanidins application of the fruit of the acai (*Euterpe orelacea*) in ophthalmologic surgery, Mauricio Maia – CNPq – 402718/2013-5

Cell Therapy derived from embryonic stem cells into retinal degenerative diseases – CIRM, Rubens Belfort Jr. – CNPq – 400036/2013-4

Interferon-gamma release assay (IGRA) GeneXpert platform and polymerase chain reaction in real time (RT-PCR), implications for diagnosis and managing ocular inflammation related tuberculosis, Cristina Muccioli – CNPq – 401096/2014-9

Reconstruction of Ocular Surface: Basic Aspects, Clinical and Surgical, Rubens Belfort Jr. – Thematic Project Fapesp – 01/07036-3

PhD Thesis (2015)

Fabiano Cade Jorge, The role of Glaucoma after Boston Keratoprosthesis in severe chemical burn. Supervisor: Wallace Chamon.

Renata Portella Nunes, Cost-effectiveness of the pharmacological treatments for age-related macular degeneration. Supervisor: Michel Eid Farah.

Emmerson Badaro Cardoso, Investigation of new dyes for chromovitrectomy. Supervisor: Eduardo Buchele Rodrigues.

Olival Cardoso do Lago, The influence of motor experience in the visual pattern in athletes of Soccer,

Tennis and Handball. Supervisor: Paulo Schor.

Magno Antonio Ferreira, Posterior hyaloid detachment and internal limiting membrane peeling using 11 natural vital dyes: study in cadaveric eyes. Supervisor: Mauricio Maia.

David Kirsch, Amniotic membrane for reducing the formation of adhesions in strabismus surgery: experimental study in rabbits. Supervisor: Elcio Hideo Sato.

Vagner Rogério dos Santos, Prototype development and validation of portable reading system (PRS) for low vision. Supervisor: Adriana Berezovsky.

Hermelino Lopes de Oliveira Neto, Multicenter randomized clinical trial to assess the effectiveness of intra-vitreous injections of bevacizumab, triamcinolone or their combination in the treatment of diabetic macular edema. Supervisor: Rubens Belfort Jr.

Rafael Lacerda Furlanetto, Structure-function correlation in glaucoma of high-resolution ultrasound and magnetic resonance imaging with optical coherence tomography, frequency doubling perimetry and standard automated perimetry. Supervisor: Augusto Paranhos Jr.

Cristina Miyamoto, Effects of amfenac and its combination with bevacizumab on the secretion of pro-angiogenic and inflammatory cytokines by retinal pigment epithelial cells. Supervisor: Miguel Burnier Jr.

Juliana Mantovani Bottos, Vitreomacular Tract: new concepts. Supervisor: Mauricio Maia.

Josenilson Martins Pereira, Full Field Electroretinogram using a monopolar microfiber electrode prototype in patients with retinal dystrophy. Supervisor: Adriana Berezovsky.

Maria Eugenia Orellana de Alonzo, Immunohistochemical Analysis of Retinoblastoma Cell Phenotype using Neural and Glial Cell Markers. Supervisor: Miguel Burnier Jr.

Jarbas Pereira de Macedo, Comparison between femtosecond laser deep anterior lamellar keratoplasty associated with phototherapeutic keratectomy and the manual technique, in keratoconus. Supervisor: Luciene Barbosa Sousa.

Karine Duarte Bojkian, Fetal ocular volume measurement by tridimensional ultrasound. Supervisor: Ivan Maynard Tavares.

International cooperations

- Henry C. Witelson Ocular Pathology Laboratory, McGill University, Montreal, Canada, coordinated by Prof. Dr. Miguel Burnier Jr.

- Centers for Disease Control and Prevention (CDC), Atlanta, Georgia, USA

- UC Davis Eye Center, UC Davis, California, USA

- Illinois Eye and Ear Infirmary, University of Illinois College of Medicine, Chicago, Illinois, USA

- Shiley Eye Center, UC San Diego, California, USA

- Massachusetts Institute of Technology (MIT), Boston, Massachusetts, USA

- The Wilmer Eye Institute, Johns Hopkins University, Baltimore, Maryland, USA

- Universidad de La Frontera, Temuco, Chile

- Doheny Eye Institute, Los Angeles, California, USA

- Università di Bologna, Bologna, Italy

- Mayo Clinic, Department of Ophthalmology, Jacksonville, Florida, USA (mayoclinic.org)

Prizes

- 2014 Capes Prize for staff development coordination of highest level for the thesis "The use of Lutein and Zeaxanthin as dyes for intraocular ophthalmological surgeries", defended in 2013 by Diogo de Sousa Martins under the guidance of Prof. Rubens Belfort Jr. MD.

- 2015 Honorable Mention of the Capes Prize in Medicine area III to the thesis "Diagnostic Evaluation of Optical Coherence tomography of glaucoma and its clinical application", defended in 2014 by Renato Dichetti Lisboa, under the guidance of Augusto Paranhos Jr.,

- American Society of Retina Specialists (ASRS) Honor Award for outstanding service to the Society's Scientific and Educational Programs, Eduardo Buchele Rodrigues

- American Society of Retina Specialists Prize – 17th Annual ASRS Film Festival, Prof. Dr. Michel Eid Farah

- FUNDAPI – Piedade Cohen Foundation Certificate of Recognition – for the sake of eye health of the state of Amazonas population, as general coordinator of the lower Amazon Cataract Project, Walton Nôse

- 2015 Conrado Wessel Prize for Medicine, Conrado Wessel Foundation, Rubens Belfort Jr.

Patents

Patent: Innovation privilege. Register number: PI110002448, filing date: 20/01/2010, Title: “Application anthocyanidins and proanthocyanidins of Acai berry (*Euterpeorelacea*) in ophthalmology surgeries”, Registration Institution: Federal University of São Paulo. Maia, M; Maia, A.; Chen, Jane; Lima Filho AAS; Farah, M.E.; Rodrigues, E. B. Application anthocyanidins and proanthocyanidins of Acai berry (*Euterpeorelacea*) in ophthalmology surgeries. 2010, Brazil.

Patent: Innovation privilege. Register number: 61/468,838, filing date: 15/01/2012, title: “Intraocular use of Lutein derivatives coloring to aid ophthalmology surgeries”. Maia, M; Belfort Jr, R.; Lima Filho AAS; Martins, D. Intraocular use of Lutein derivatives coloring to aid ophthalmology surgeries. 2012, Brasil.

Patent: Innovation privilege. Register number: PI0602186 filing date: 09/06/2006, title: “Bipolar electrodes disposable microfiber for electroretinography”, Registration Institution: INPI – National Institute of Industrial Property. Berezovsky, A.; Unifesp, U. F. S. P.; Pereira, J. M.; Fapesp, F. A. P. E. S. P.; Santos, V. R.; Salomão, S. R.; Schor, P. Bipolar electrodes disposable microfiber for electroretinography. 2006, Brasil.

Patent: Innovation privilege. Register number: PI10010092, filing date: 26/03/2010, title: “Micro and nano structured composition for ocular administration for treating keratoconus”, Registration Institution: INPI – National Institute of Industrial Property. Lima Filho, Acacio Alves de Souza; Lima Filho, Acacio Alves de Souza; Oliveira, A. G.; Cardillo, J. A.; Schor, P; Chamon. Micro and nano structured composition for ocular administration for treating keratoconus. 2010, Brasil.

Patent: Innovation privilege. Register number: PI03010783, filing date: 01/04/2003, title: “Surgical corneal topography” Registration Institution: INPI – National Institute of Industrial Property. Carvalho, L. A. V.; Caiado, Jarbas Castro; Schor, P; Chamon, W. Surgical corneal topography. 2003, Brasil.

Patent: Innovation privilege. Register number: PI0302612, filing date: 07/07/2003, title: “Optical device for digital image processing used for analyzing wear surgical blades”, Registration Institution: INPI – National Institute of Industrial Property. Santos, V. R.; Schor, P.; Hatori, A. T. N.; Machado, E. V. Optical device for digital image processing used

for analyzing wear surgical blades. 2003, Brasil.

Patent: Innovation privilege. Register number: PI02015358, filing date: 18/04/2002, title: “Device wavefront sensor with cylindrical symmetry to measure optical aberrations”, Registration Institution: INPI – National Institute of Industrial Property. Schor, P; Chamon; Carvalho, L. A. V.; Caiado, Jarbas Castro. Device wavefront sensor with cylindrical symmetry to measure optical aberrations. 2002, Brasil.

Financial support

Academic Excellence Program (Proex) – Capes.

Facilities

The Program has eight laboratories, described below, all located on the EPM / Unifesp – Campus Vila Clementino. Four of the labs are in Research Building II, three in the Department of Ophthalmology and Visual Sciences Building, and one in Research Building I. For further details about the labs, please visit our website at <http://www.oftalmounifesp.com.br>.

Ocular Protozoology Laboratory (LAPRO) and Ocular Infection Mechanisms Laboratory Studies (LEMIO), coordinated by Profa. Denise de Freitas and Fábio Ramos.

Ophthalmology Ocular Microbiology Laboratory (LOFT), coordinated by Profa. Ana Luisa Hofling-Lima.

Ocular Surface Advanced Centre (CASE), coordinated by Prof. José Álvaro Pereira Gomes.

Laboratory of Ocular Bioengineering, coordinated by Prof. Paulo Schor.

Laboratory of Clinical Electrophysiology of Vision, coordinated by Profa. Adriana Berezovsky and Solange Salomão.

Retina Research Laboratory, coordinated by Profs. Michel Farah, Maurício Maia and Eduardo Büchele Rodrigues.

Imaging Center in Ophthalmology, coordinated by Profa. Norma Allemann.

Laboratory Hemostasis Ocular and Biomarkers – LHO, coordinated by postdoctoral student PNPD/ Capes Dra. Linda Christian Carrijo-Carvalho and by Profa. Dra. Denise de Freitas.

Human Communication Disorders

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/dchfono>

Home page sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1434

Coordinator

Brasília Maria Chiari

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Historical background

The Postgraduate Program in Human Communication Disorders: Speech and Audiology Science was established in 1979 by Professors Raymundo Manno Vieira, Pedro Luiz Mangabeira Albernaz, Maurício Malavasi Ganança and Paulo Augusto de Lima Pontes. The Program, offering Master and PhD degrees, was accredited by the Federal Council of Education, No. 624/82, in December of 1982. Throughout its existence the Program has received high ratings in the Brazilian Education Ministry evaluation (Capes), most recently receiving a grade of 6, the second highest grade possible. Professor Brasília Maria Chiari is the current Program Coordinator, with Professor Maria Cecília Martinelli as Vice Coordinator.

Research focus

Speech, Language and Hearing Science.

Selected publications

Mancini PC; Durrant JD; Starling ALP; et al. Children with phenylketonuria treated early. Ear and Hearing (Print). 2013; volume: 34, p. 236-244.

Andrade KC; Menezes PL; Carnauba AT; Rodrigues RG; Leal MC; Pereira LD. Non-flat audiograms in sensorineural hearing loss and speech perception. Clinic. 2013; volume: 68, p. 815-819.

Cera ML; Ortiz KZ; Bertolucci PHF; et al. Speech and orofacial apraxias in Alzheimer's disease. International Psychogeriatrics. 2013; volume: 17, p. 01-07

Amemiya EE; Goulart BNG; Chiari BM. Use of nouns and verbs in the oral narrative of individuals with hearing impairment and normal hearing between 5 and 11 years of age. Sao Paulo Medical Journal (Impresso). 2013; volume: 131, p. 289-295.

Curcio DF; Pecoraro G; Behlau MS. Vibrato rate variability in three professional singing styles: opera, rock, and brazilian country. The Journal of the Acoustical Society of America. 2013; doi: <http://dx.doi.org/10.1121/1.4805550>.

Agessi LM; Villa TR; Dias KZ; et al. Central auditory processing and migraine: a controlled study. Arquivos de Neuro-Psiquiatria (Impresso). 2014; doi:10.1186/1129-2377-15-72.

Brabo NC; Minett TSC; Ortiz KZ. Fluency in Parkinsons disease: disease duration, cognitive status and age. Periodic: Arquivos de Neuro-Psiquiatria (Impresso). 2014; doi:10.1590/0004-282x20140018

Behlau MS; Zambon FC; Madazio-Greco GMV. Managing dysphonia in occupational voice users. Current Opinion in Otolaryngology & Head and Neck Surger. 2014; volume: 22, p. 188-194.

Carvalho CAF; Capellini SA; Avila CRB. Phonological working memory and reading in students with dyslexia. Frontiers in Psychology. 2014; doi: <http://dx.doi.org/10.3389/fpsyg.2014.00746>.

Silva AT; Gananca MM; Garcia AP; Kessler K; Gananca HHCM et al. Postural control in students with underachievement. Brazilian Journal of Otorhinolaryngology (Impresso). 2014; volume: 80, p. 105-110.

Ribeiro LL; De Paula, KMP; Behlau MS. Behavior, Social competence, and voice disorders in childhood and adolescence. *Journal of Voice*. 2015, doi: 10.1016/j.jvoice.2015.08.005.

Andrade AN; Gil D; Iorio MCM. Benchmarks for the dichotic sentence identification test in Brazilian portuguese for ear and age. *Periodic: Brazilian Journal of Otorhinolaryngology (Impresso)*. 2015; volume: 81 p. 459-465.

Ricci NA; Aratani MC; Gananca HHCM; et al. Challenges in conducting a randomized clinical trial of older people with chronic dizziness: before, during and after vestibular rehabilitation. *Contemporary Clinical Trials*. 2015; volume: 40 p. 26-34.

Kida ASB; Bueno GJ; Lima VLCC; et al. Influencia da modalidade de reconto na avaliação do desempenho de escolares em compreensão leitora. *Estudos de Psicologia*. 2015; volume: 32 p. 605-615.

Rodrigues KA; Machado FR; Chiari BM; et al. Swallowing rehabilitation of dysphagic tracheostomized patients under mechanical ventilation in intensive care units: a feasibility study. *Revista Brasileira de Terapia Intensiva (Impresso)*. 2015; doi: 10.5935/0103-507X.20150011.

Grants

Ten Professors in our Program have received CNPq Productivity Scholarships (04 PQ 1 (02 – 1D 01 – 1C and 01 – 1B) and 06 PQ 2). These awards support ongoing projects, which integrate our research focus.

Funded projects:

- *Professor Dra. Brasília Maria Chiari*

Project: “Evaluation, Monitoring and Rehabilitation of Hearing Disorders, Body Balance and Language: The Medical Diagnosis to Treatment with views to the Socio-Cultural Integration”. Funding Agency: Capes Notice 24/2012 – Pro-Equipment.

- *Professor Dra. Jacy (Coordinator)*

Project: “Communicative Competence and Children and Adolescents with Autism Spectrum Disorder based on the assessment by SCERTS TM model”. Funding Agency: CNPq – Conselho Nacional de Desenvolvimento Científico e Tecnológico.

- *Professor Dra. Jacy Perissinoto (Member)*

Project: “Trauma, Mental Health and Early Childhood Development”. Funding Agency: National Council for Scientific and Technological Development.

- *Professor Dra. Jacy Perissinoto (Member)*

Project: “System – PECS for children with Autism Spectrum Disorder with emphasis on family engagement”. Funding Agency: CNPq National Council for Scientific and Technological Development.

PhD Thesis (2015)

Ana Paula Doi Bautzer. Study of the function in the development of the Stomatognathic. System in premature newborns. Supervisor: Zelita Caldeira Ferreira Guedes.

Ana Paula Perez Sales. Re (Habilitation) by the FM system and the auditory training in auditory processing disorder. Supervisor: Liliane Pereira Desgualdo.

Fabiana Copelli Zambon. Vocal fatigue in teachers and its relation to general fatigue throughout the school year. Supervisor: Mara Suzana Behlau.

Luciane Teixeira Soares. Analysis of range of tongue motion and pharyngeal constriction post stroke. Supervisor: Maria Inês Rebelo Gonçalves.

Marília Rodrigues Freitas de Souza. Phoneme detection, phonology, auditory behavior in daily activities and quality of life: a study in school hearing aid users. Supervisor: Maria Cecília Martinelli Iorio.

Maysa Luchesi Cera. Phonological and phonetics manifestations in Alzheimer’s disease dementia. Supervisor: Thaís Minett.

Mirian Aratangy Arnaut. Writing evaluation using nounphrases. Supervisor: Clara Regina Brandão de Ávila.

Ruth M. Magalhaes Eringer de Souza. Electrophysiological and behavioral assessment in adults new users of hearing aids with frequencies compression. Supervisor: Maria Cecília Martinelli Iorio.

Tiago de Melo Araújo. Effect of sound amplification in speech perception in elderly with and without tinnitus. Supervisor: Maria Cecília Martinelli Iorio.

MSc Thesis (2015)

Carla Fonseca Moraes Tonelini. Hearing aid benefit study: a comparison of fittings pre and post probe-mic verification with Brazilian Portuguese test signal. Supervisor: Maria Cecília Martinelli Iorio.

Elisângela Zacanti. Assessment of voice therapy on asymptomatic subjects’ vocal tract by means of cone beam computed tomography. Supervisor: Brasília Maria Chiari.

Fernanda Corral da Fonseca. Speech perception with hearing aids in the elderly with no evidence of cognitive impairment. Supervisor: Maria Cecília Martinelli Iorio.

Gabriela Juliane Bueno. Ability to Monitor Reading Comprehension in Primary Education. Supervisor: Clara Regina Brandão de Ávila.

Isabella Christina Oliveira Neto. Measures of the maximum displacement of the hyoid and larynx during swallowing. Supervisor: Maria Inês Rebelo Gonçalves.

Lais Carvalho Mazzega. Development of social and language skills in adolescents with autism spectrum disorders in the context of circumstantial stimulation. Supervisor: Jacy Perissinoto.

Lais Rocha de Barros Oliveira. Vocal and endoscopic analysis of the velopharyngeal pump method in acquisition of esophageal voice. Supervisor: Brasília Maria Chiari.

Luiz Koiti Takagaki. Development of a computerized system for the application of the Brazilian Portuguese version of the Distinctive Feature Difference Test. Supervisor: Maria Cecília Martinelli Iorio.

Mariana Silva Freitas. Auditory processing pre and post acclimatization in hearing aid users. Supervisor: Daniela Gil.

Noemia Caroline de Souza. Chewing Profile in Obese children and Teenagers. Supervisor: Zelita Caldeira Ferreira Guedes.

Priscila Faissola Caporali. Cross-Cultural Adaptation of the Hearing Implant Sound Quality Index (HISQUI19) into Brazilian Portuguese. Supervisor: Brasília Maria Chiari.

Samira Teixeira Bezerra. Rehabilitation of communication abilities in the elderly deafness with mild Alzheimer's disease. Supervisor: Maria Cecília Martinelli Iorio.

Suelen Graton Rossi. Influence of semantic priming in access and inhibition of homonyms in reading comprehension. Supervisor: Clara Regina Brandão de Ávila.

Financial support

Capes, CNPq and Fapesp.

Other information

The Program has produced more than 550 Master and PhD theses since its foundation 34 years ago. Currently the Program has approximately 60 Master and PhD students plus 5 Post-Doctoral fellows.

International cooperations

Dr. Susan Scollie, Western Ontario University.

Dr. Alessia Paglialonga, Biomedical Engineering, Politecnico di Milano, Italy.

University of Oxford.

Medicine (Clinical Radiology)

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/radiologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1436

Coordinator

Suzan Menasce Goldman

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Historical background

The Postgraduate Program in Radiology was founded 35 years ago with the goal of preparing students for careers as highly qualified teachers and researchers in the fields of clinical radiology and radiological sciences. The Program is open to all who have scientific curiosity and are willing to invest time and effort for their own benefit and for the benefit of national education and research. Students in the Program have the opportunity to grow, expand their knowledge and share it with colleagues, and to (re) discover the pleasure of researching, teaching and learning. If that sounds interesting to you, we invite you to meet our team of advising professors and learn about our research projects.

Research focus

Diagnostic Imaging and Therapy

Studies of diagnostic imaging in various areas of

radiology, including neuroradiology/head and neck, musculoskeletal system, internal medicine, and oncology, as well as interventional radiologic procedures with diagnostic or therapeutic purposes

Science and Education

Studies focused on radiological sciences and related fields, with emphasis on new teaching methodologies applied to graduate students and medical residents and evidence-based radiology

Management and Technology

Study of management practices applied to health, focused on radiology and diagnostic imaging, as well as studies involving physical and radiological protection, radiology technology, information technology, computer imaging, among others

Selected publications

Szejnfeld D, Nunes TF, Giordano EE, Freire F, Ajzen SA, Kater CE, Goldman SM. Radiofrequency ablation of functioning adrenal adenomas: preliminary clinical and laboratory findings. *J Vasc Interv Radiol.* 2015 Oct;26(10):1459-64.

Lemos MD, Carvalho GB, Carvalho RS, Bichuetti DB, de Oliveira EM, Abdala N. Neuromyelitis optica spectrum disorders: beyond longitudinally extensive transverse myelitis. *Clin Radiol.* 2015 Jun;70(6):630-7.

Habib VV, Araujo Júnior E, Sun SY, Júnior DF, Mattar R, Szejnfeld J, Ajzen SA. Early indicators of cervical insufficiency assessed using magnetic resonance imaging of the cervix during pregnancy. *J Matern Fetal Neonatal Med.* 2015 Apr;28(6):626-31.

Ferreira FB, Fernandes ED, Silva FD, Vieira MC, Puchnick A, Fernandes AR. A sonographic technique to evaluate the anterior bundle of the ulnar collateral ligament of the elbow: imaging features and anatomic correlation. *J Ultrasound Med.* 2015 Mar;34(3):377-84.

Fernandes EA, Mann TS, Puchnick A, Tertu-

lino FF, Cannato CT, Nery C, Fernandes AR. Can ultrasound of plantar plate have normal appearance with a positive drawer test? *Eur J Radiol*. 2015 Mar;84(3):443-9.

Regacini R, Puchnick A, Shigueoka DC, Iared W, Lederman HM. Whole-body diffusion-weighted magnetic resonance imaging versus FDG-PET/CT for initial lymphoma staging: systematic review on diagnostic test accuracy studies. *Sao Paulo Med J*. 2015 Mar-Apr;133(2):141-50.

de Oliveira PB, Puchnick A, Szejnfeld J, Goldman SM. Prevalence of incidental pancreatic cysts on 3 tesla magnetic resonance. *PLoS One*. 2015 Mar 23;10(3):e0121317.

de Freitas Tertulino F, Schraibman V, Ardengh JC, do Espírito-Santo DC, Ajzen SA, Torrez FR, Lobo EJ, Szejnfeld J, Goldman SM. Diffusion-weighted magnetic resonance imaging indicates the severity of acute pancreatitis. *Abdom Imaging*. 2015 Feb;40(2):265-71.

von Atzingen AC, Tiferes DA, Deak E, Matos D, D'Ippolito G. Using computed tomography colonography in patients at high risk of colorectal cancer – a prospective study in a university hospital in South America. *Clinics (Sao Paulo)*. 2014 Nov;69(11):723-30.

Rivero RL, Oliveira EM, Bichuetti DB, Gabbai AA, Nogueira RG, Abdala N. Diffusion tensor imaging of the cervical spinal cord of patients with Neuromyelitis Optica. *Magn Reson Imaging*. 2014 Jun;32(5):457-63.

Sarmento PL, Plavnik FL, Scaciota A, Lima JO, Miranda RB, Ajzen SA. Relationship between cardiovascular risk factors and the echogenicity and pattern of the carotid intima-media complex in men. *Sao Paulo Med J*. 2014;132(2):97-104.

Nogueira SA, Dimenstein R, Cunha ML, Wagner J, Funari MB, Lederman HM. Low-dose radiation protocol using 3D mode in a BGO PET/CT. *Radiol Med*. 2015 Feb;120(2):251-5.

Nunes TF, Szejnfeld D, Xavier AC, Kater CE, Freire F, Ribeiro CA, Goldman SM. Percutaneous ablation of functioning adrenal adenoma: a report on 11 cases and a review of the literature. *Abdom Imaging*. 2013 Oct;38(5):1130-5.

Szarf G, Obac AR, Puchnick A, Yuji Verrastro CG, Eyer Rodrigues AA, Uellendahl M, Camara Santos MV, Lopes Colombo A, da Rocha Correa Fernandes A, Lederman HM. Mycetoma involving the heart. *Circulation*. 2013 Sep 10;128(11):e159-61.

Caetano S, Junior JM, Fingerman F, Goldman SM, Szejnfeld J. Mammographic assessment of a

geographically defined population at a mastology referral hospital in São Paulo Brazil. *PLoS One*. 2013 Sep 16;8(9):e74270.

Marchi L, Abdala N, Oliveira L, Amaral R, Coutinho E, Pimenta L. Radiographic and clinical evaluation of cage subsidence after stand-alone lateral interbody fusion. *J Neurosurg Spine*. 2013 Jul;19(1):110-8.

Nery C, Coughlin MJ, Baumfeld D, Mann TS, Yamada AF, Fernandes EA. MRI evaluation of the MTP plantar plates compared with arthroscopic findings: a prospective study. *Foot Ankle Int*. 2013 Mar;34(3):315-22.

Goldman SM, Nunes TF, Melo HJ, Dalavia C, Szejnfeld D, Kater C, Andreoni C, Szejnfeld J, Ajzen SA. Glutamine/glutamate metabolism studied with magnetic resonance spectroscopic imaging for the characterization of adrenal nodules and masses. *Biomed Res Int*. 2013;2013:835385.

Books and chapters

Books

Isabela Silva Muller; Giuseppe D'Ippolito; Antônio José da Rocha. *Oncologia*. 1. ed. Rio de Janeiro: Elsevier, 2014. v. 1. 963p.

Isabela Silva Muller; Giuseppe D'Ippolito; Antônio José da Rocha. *Urinário*. 1. ed. Rio de Janeiro: Elsevier, 2013. v. 1. 770p.

Chapters

Eloy de Ávila Fernandes et al. *Sarcomas Ósseos e de Partes Moles*. In: C. Isabela Silva Muller; Giuseppe D'Ippolito; Antônio José da Rocha. (Org.). *Oncologia*. 1ed. Rio de Janeiro: Elsevier, 2015, v. xx, p. 1-820.

Gilberto Szarf et al. *Ressonancia Magnética e Tomografia Computadorizada*. In: Antonio Carlos Carvalho. (Org.). *Cardiologia Pediátrica – Uma Abordagem Para Cardiologistas e Pediatras*. 1ed. São Paulo: Atheneu, 2015, v. 1, p. 165-171.

Artur R. C. Fernandes, Denise T. do Amaral, Eloy de Ávila Fernandes et al. *Propedêutica por imagem da coluna vertebral*. In: Délio Eulálio Martins, Eduardo Barros Puertas, Marcelo Wajchenberg. (Org.). *Clinica da coluna vertebral*. 1ed. São Paulo: Atheneu, 2014, p. 17-

Giuseppe D'Ippolito et al. *Fígado e Vias Biliares*. In: Muller CIS; D'Ippolito G; Rocha AJ. (Org.). *Oncologia*. 1ed. Rio de Janeiro: Elsevier, 2014, v. 1, p. 503-546.

Giuseppe D'Ippolito et al. Fígado, Pâncreas e Baço. In: Prando A; Moreira FA. (Org.). Fundamentos de Radiologia e Diagnóstico por Imagem. 2ed. Rio de Janeiro: Elsevier, 2014, v. 1, p. 293-350.

Daniel Bekhor, Giuseppe D'Ippolito. Apêndice – Critérios Diagnósticos. In: Athayde ACM; Caserta NMG. (Org.). ProRad. 1ed. Porto Alegre: Artmed/Panamericana, 2014, v. 3, p. 97-132.

Eloy de Ávila Fernandes et al. Ultrassonografia. In: Nelson Mattioli Leite; Flávio Faloppa. (Org.). Propedêutica ortopédica e traumatológica. 1ed. Porto Alegre: Artmed, 2013, p. 398-405.

Gilberto Szarf et al. Ressonância Magnética Cardiovascular. Técnicas básicas: fluxo. In: Juliano de Lara Fernandes; Carlos Eduardo Rochitte; César Higa Nomura. (Org.). Ressonância e tomografia cardiovascular. 1ed. Barueri: Editora Manole Ltda., 2013, v. 1, p. 58-76.

Gilberto Szarf et al. Tomografia Computadorizada Cardiovascular. Avaliação de enxertos Cirúrgicos. In: Juliano de Lara Fernandes; Carlos Eduardo Rochitte; César Higa Nomura. (Org.). Ressonância e tomografia cardiovascular. 1ed. Barueri: Editora Manole, 2013, v. 1, p. 350-357.

PhD Thesis (2015)

Hugo Alexandre Sócrates de Castro. Impact of transition zone PSA density on reducing the number of unnecessary biopsies in patients with PSA levels between 2.6 and 10.0 ng/ml. Supervisor: Sergio Ajzen.

André Yui Aihara. CT measurement of the axial rotation of the femoral component in total knee arthroplasty performed by the gaps balancing technique. Supervisor: Artur da Rocha Correa Fernandes.

Claudia Lemos da Silva. Accuracy of prostate biopsy guided by compression elastography in the diagnosis of prostate cancer. Supervisor: Sergio Ajzen.

Denis Szejnfeld. Radiofrequency ablation of functioning adrenal adenomas: preliminary clinical and laboratory findings. Supervisor: Suzan Mensace Goldman.

Rodrigo Regacini. Whole-body MRI compared with conventional imaging methods in staging of Hodgkin lymphoma in children and adolescents. Supervisor: Henrique Lederman.

International cooperations

Salomão Faintuch. Beth Israel Deaconess Medical Center – Harvard Medical School.

Silvana de Castro Faria. MD Anderson Cancer Center – University of Texas.

Financial support

Capes, CNPq, Fapesp.

Facilities

Please see <http://www.ddi.unifesp.br>

Other information

The Postgraduate Program in Radiology has produced more than 300 Master and PhD theses since its establishment 35 years ago. Currently the Program has approximately 50 Master and PhD students, undergraduates, visiting professors and post-doctoral fellows.

Infectious Diseases

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/infectologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1437

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(55 11) 55764834 / 5576-4848 extension 1320

Historical background

The Infectious Diseases Division of Escola Paulista de Medicina was created in 1933, and the Postgraduate Program in Infectious Diseases was founded in 1983. There are currently 14 faculty members mentoring students in the Program. Most of these supervisors were trained in the USA, Canada, Germany or France.

Research focus

Strategies and assessment of therapies in infectious diseases.

Blood transmitted diseases.

Epidemiology, pathogenesis and diagnosis of viral, bacterial, and fungal infections.

Infections in immunocompromised patients.

Antimicrobial mechanisms of susceptibility and resistance.

Selected publications

Alves-Januzzi AB, Brunialti MK, Salomao R. CD163 and CD206 expression does not correlate with tolerance and cytokine production in LPS-tolerant human monocytes. *Cytometry B Clin Cytom.* 2015 Sep 9. doi: 10.1002/cyto.b.21321.

Nicoletti AG, Marcondes MF, Martins WM, Almeida LG, Nicolás MF, Vasconcelos AT, Oliveira V, Gales AC. Characterization of BKC-1 class A carbapenemase from *Klebsiella pneumoniae* clinical isolates in Brazil. *Antimicrob Agents Chemother.* 2015 Sep;59(9):5159-64.

Camargo LF, Marra AR, Pignatari AC, Sukiennik T, Behar PP, Medeiros EA, Ribeiro J, Girão E, Correa L, Guerra C, Brites C, Pereira CA, Carneiro I, Reis M, Souza MA, Barata CU, Edmond MB; Brazilian SCOPE Study Group. Nosocomial bloodstream infections in a nationwide study: comparison between solid organ transplant patients and the general population. *Transpl Infect Dis.* 2015 Apr;17(2):308-13.

Abboud CS, Monteiro J, França JI, Pignatari AC, De Souza EE, Camargo EC, Monteiro AM, Dos Santos RG, Kiffer CR. A space-time model for carbapenemase-producing *Klebsiella pneumoniae* (KPC) cluster quantification in a high-complexity hospital. *Epidemiol Infect.* 2015 Sep;143(12):2648-52.

Quiles MG, Menezes LC, Bauab K de C, Gumpel EK, Rocchetti TT, Palomo FS, Carlesse F, Pignatari AC. Diagnosis of bacteremia in pediatric oncologic patients by in-house real-time PCR. *BMC Infect Dis.* 2015 Jul 23;15:283.

Passos-Castilho AM, Carvalho VM, Cardozo KH, Kikuchi L, Chagas AL, Gomes-Gouvêa MS, Malta F, de Seixas-Santos Natri AC, Pinho JR, Carilho FJ, Granato CF. Serum lipidomic profiling as a useful tool for screening potential biomarkers of hepatitis B-related hepatocellular carcinoma by ultra-performance liquid chromatography-mass

spectrometry. *BMC Cancer*. 2015 Dec 18;15:985.

Furtado GH, Cardinal L, Macedo RS, Silva JO, Medeiros EA, Kuti JL, Nicolau DP. Pharmacokinetic/pharmacodynamic target attainment of intravenous β -lactam regimens against Gram-negative bacteria isolated in a Brazilian teaching hospital. *Rev Soc Bras Med Trop*. 2015 Sep-Oct;48(5):539-45.

Melchior TB, Perosa AH, Camargo CN, Granato C, Bellei N. Influenza virus prevalence in asymptomatic and symptomatic subjects during pandemic and postpandemic periods. *Am J Infect Control*. 2015 May 1;43(5):460-4.

Souza AC, Fuchs BB, Pinhati HM, Siqueira RA, Hagen F, Meis JF, Mylonakis E, Colombo AL. Candida parapsilosis Resistance to Fluconazole: Molecular Mechanisms and In Vivo Impact in Infected Galleria mellonella Larvae. *Antimicrob Agents Chemother*. 2015 Oct;59(10):6581-7.

Diaz RS, Inocência LA, Sucupira MC, Pereira AA, Hunter J, Ferreira JE, Araújo LV, Souza DF, Sabino EC. The Virological and Immunological Characteristics of the HIV-1-Infected Population in Brazil: From Initial Diagnosis to Impact of Antiretroviral Use. *PLoS One*. 2015 Oct 28;10(10):e0139677.

Andrioli ER, Furtado GH, Medeiros EA. Catheter-associated urinary tract infection after cardiovascular surgery: Impact of a multifaceted intervention. *Am J Infect Control*. 2016 Mar 1;44(3):289-93.

Books and chapters

Furtado GH & da Silva J.O. Antimicrobial Therapy and Prophylaxis. In: *Mastology*. Ed. Simone Elias, Gil Facina, Joaquim Teodoro de Araujo Neto Ed. Manole, 2015. ISBN: 9788520436028. p. 265.

Pignatari ACC, Furtado GH, Cuba GT. Bacterial Resistance: General Aspects of Antimicrobial Resistance in Gram-positive and Gram-negative Bacteria. In: *Hospital Infections in Pediatrics*. Ed. Abramczyk ML & Medeiros EAS. Ed. 2015. ISBN: 9788577283477. p. 592.

Gales AC & Sader HS. Bacterial Resistance to Antimicrobials. In: *Infectious Disease Therapy*. Ed. Focaccia R. Ed. 2015. ISBN: 9788538806486. p. 2600.

PhD Thesis (2015)

Ana Maria Passos. Determination of Lipid Profile of Human Serum for Screening of Potential Biomarkers for Detection of Hepatocellular Carcinoma

Associated with Viral Hepatitis. Supervisor: Celso Francisco Hernandes Granato.

Ana Helena Perosa Dezene. Molecular Study of the Neuraminidase and Hemagglutinin Genes of Influenza Virus Strains Circulating During 2001 to 2013. Supervisor: Nancy Belley.

Aline Guimarães de Souza. Prevalence and Molecular Characterization of Negative Coagulase Staphylococcus Isolated from Bloodstream Infections of the SCOPE Brazil Project. Supervisor: Antônio C. Pignatari.

Ana Rachel Oliveira Leda. Study of the Quasispecies of HIV-1 with the Use of Mass Parallel Sequencing. Supervisor: Ricardo Sobhie Diaz.

Michel Moraes Soane. Prediction Algorithm for Development of Resistance in the HIV-1 Gene pol. Supervisor: Luiz Mario Ramos Janini.

MSc Thesis (2015)

Sheila Negrini Parmezan. Detection of Painfluenzavirus1-4 on Respiratory Specimens of distinct populations of Sao Paulo by Real Time PCR. Supervisor: Nancy Belley.

Ana Carolina Ramos da Silva. Standardization of the Desorption Mass Spectrometry and Laser Ionization – Matrix Assisted Technique for the Detection of External Membrane Proteins in Klebsiella pneumoniae. Supervisor: Ana C. Gales.

Laura Alejandra Nucci. Evaluation of the Gene Expression of Toll-like receptor (TLR) and Oxidative Metabolism in PBMCs from patients diagnosed with sepsis due to pneumonia. Supervisor: Reinaldo Solomão.

Elaine Cristina Francisco. Analysis of the Intraspecific Diversity of Trichosporon asahii and Trichosporon faecale by Maldi-Tof Ms. Supervisor: Arnaldo L. Colombo.

Helio Benites Gil. Molecular Characterization of Deltabaculovirus (Baculoviridae) Identified in Culex quinquefasciatus (Diptera: Culicidae). Supervisor: Luiz Mario Ramos Janini.

International cooperations

Dr Michael P Busch, Professor of Laboratory Medicine, University of California, San Francisco, in collaboration with Dr Ricardo Sobhie Diaz

Dr David Denning, Manchester University, Faculty of Life Sciences, ERC, University Hospital of

South Manchester, Manchester, Manchester, UK, project in collaboration with Dr Arnaldo L. Colombo.

Dr David Perlin from the Research Institute Center New Jersey Medical School – Rutgers, The State University of New Jersey, New Jersey, NJ, project in collaboration with Dr Arnaldo L. Colombo.

Dr. David Nicolau from the Center for Anti-Infective Drug Development, Hartford Hospital, Hartford, CN, project in collaboration with Dr Carlos Kiffer.

Dr Hélio S. Sader from the JMI Labs, North Liberty, IA, project in cooperation with Dr Ana C. Gales.

Dr Jacques Meis from the Clinical Microbiology & Infectious Diseases, Canisius Wilhelmina Ziekenhuis, Nijmegen, The Netherlands, project in collaboration with Dr Arnaldo L. Colombo.

Dr Mariana Castanheira from the JMI Labs, North Liberty, IA, project in cooperation with Dr Ana C. Gales.

Dr Marina Freudenberg from the Max Planck Institute of Immunobiology and Epigenetics, Freiburg, Germany, project in collaboration with Dr Reinaldo Salomão.

Dr Michael Gilmore from Department of Ophthalmology Microbiology and Immunity, Harvard University, Boston, MA, project in cooperation with Dr Antônio Carlos C. Pignatari.

Dr Odalys Blanco from the Centro Nacional de Sanidad Agropecuaria, CENSA, Cuba, project in collaboration with Dr Reinaldo Salomão.

Dr Ronald N Jones from the JMI Labs, North Liberty, IA, project in cooperation with Dr Ana C. Gales.

Dr Suzane Silbert from the Esoteric Lab, Tampa General Hospital, Tampa, FL, project in cooperation with Dr Antônio Carlos C. Pignatari.

Dr Timothy Walsh from Cardiff Institute of Infection and Immunity, Cardiff, UK, project in cooperation with Dr Ana C. Gales.

Dr Victor Rosenthal from International Nosocomial Infection Control Consortium, Buenos Aires, Argentina, project in cooperation with Dr. Eduardo Medeiros.

Elsevier for the contribution to the development of scientific research in Brazil, Brasília, May 2014.

Financial support

Fapesp, Capes, CNPq.

Facilities

Alerta Laboratory (Ana C. Gales).

HIV/AIDS and Viral Hepatitis Outpatient Research Clinic (David Lewi; Ricardo Sobhie Diaz).

Hospital Infectious Control Department (Eduardo Medeiros).

Immunology Laboratory (Reinaldo Salomão).

Microbiology Special Laboratory (Antonio Carlos Pignatari).

Mycology Special Laboratory (Arnaldo Colombo).

Nucleus on Infections on Solid Organs Transplants (Luis Camargo; Arnaldo Colombo).

Nucleus on Infectious Diseases during Pregnancy (Adauto Castelo Filho).

Retrovirology Laboratory and NB-3 Laboratory (Ricardo Sobhie Diaz; Luiz Mario Janini).

Virology Laboratory (Celso Granato; Nancy Bellei).

Prizes

2014 – “Prêmio Capes-ELSEVIER 2014 – Mulheres Cientistas” – Women in Science. Award granted by the Brazilian Coordination for the Improvement of Higher Education Personnel and

Health Sciences Applied to Rheumatology

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/reumatologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1438

Coordinator

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Historical background

The Postgraduate Program in Health Sciences Applied to Rheumatology at Universidade Federal de São Paulo was founded in 1983 by Professor Edgard Atra, Full Professor of Rheumatology. The Program aims to develop high-quality Master and PhD researchers, able to teach and carry out research in Rheumatology and related fields. It is mainly focused on the development of original research involving basic, translational and clinical science in Rheumatology, but high-level scientific research in fields associated with rheumatic diseases is also supported. In recent years the Program has been involved in promoting interchange with international research centers to further internationalization, innovation and collaboration in rheumatology research. An important purpose of the Postgraduate Program is to increase and improve rheumatology teaching activities and ensure that current develop-

ments in rheumatology are communicated to the medical and research community in Brazil. From its founding through 2015, the Program has trained more than 250 PhD and Master students. In addition to excellent scientific and research training, we hope to provide our students with an awareness of the important role of socio-economic factors in health and healthcare and to inspire them to serve the Brazilian community.

Research focus

Clinical and epidemiological aspects of rheumatic diseases: clinical and laboratory parameters; causes of death in rheumatic diseases

Pathophysiology of rheumatic diseases: auto-antibodies, cytokines and humoral mediators in rheumatic diseases; molecular and cellular biology; endothelial function and microcirculation

Fundamental rheumatology: evaluation of rheumatic diseases using imaging methods; metabolic bone diseases

Treatment: spine and rehabilitation; drug therapy

Selected publications

Silva HC, Pinheiro MM, Genaro PS, et al. Higher prevalence of morphometric vertebral fractures in patients with recent coronary events independently of BMD measurements. *Bone* 2013;52:562-7.

dos Reis-Neto ET, da Silva AE, Monteiro CM, de Camargo LM, Sato EI. Supervised physical exercise improves endothelial function in patients with systemic lupus erythematosus. *Rheumatology* 2013;52:2187-95.

Sekiyama JY, Camargo CZ, Andrade LEC, Kayser C. Reliability of widefield nailfold capillaroscopy and videocapillaroscopy in the assessment of patients with raynauds phenomenon. *Arthritis Care Res* 2013;65:1853-61.

Souza AW, de Leeuw K, van Timmeren MM,

et al. Impact of serum high mobility group Box 1 and soluble receptor for advanced glycation end-products on subclinical atherosclerosis in patients with granulomatosis with polyangiitis. *PLoS One* 2014;9:e96067.

Keppeke GD, Satoh M, Ferraz ML, Chan EK, Andrade LE. Temporal evolution of human autoantibody response to cytoplasmic rods and rings structure during anti-HCV therapy with ribavirin and interferon- γ . *Immunol Res* 2014;60:38-49.

Pisciottano MV, Pinto SS, Szejnfeld VL, Castro CH. The relationship between lean mass, muscle strength and physical ability in independent healthy elderly women from the community. *J Nutr Health Aging* 2014;18:554-8.

Arismendi M, Giraud M, Ruzehaji N, et al. Identification of NF- κ B and PLCL2 as new susceptibility genes and highlights on a potential role of IRF8 through interferon signature modulation in systemic sclerosis. *Arthritis Res Ther*. 2015; 21:17-71.

Camargo CZ, Sekiyama JY, Arismendi MI, Kayser C. Microvascular abnormalities in patients with early systemic sclerosis: less severe morphological changes than in patients with definite disease. *Scand J Rheumatol*. 2015;44:48-55.

de Souza AW, Perazzio SF, de França NR, et al. High mobility group box 1 serum levels are increased in Behçet's disease, but not associated with disease activity or disease manifestations. *Rheumatol* 2015;54:2151-5.

Spolidoro Paschoal NO, Natour J, Machado FS, de Oliveira HA, Furtado RN. Effectiveness of triamcinolone hexacetonide intraarticular injection in interphalangeal joints: a 12-week randomized controlled trial in patients with hand osteoarthritis. *J Rheumatol* 2015;42:1869-77.

Pinheiro FA, Souza DC, Sato EI. A study of multiple causes of death in rheumatoid arthritis. *J Rheumatol* 2015;42:2221-8.

Keppeke GD, Calise SJ, Chan EK, Andrade LE. Assembly of IMPDH2-based, CTPS-based, and mixed rod/ring structures is dependent on cell type and conditions of induction. *J Genet Genomics*. 2015;42:287-99.

Books and chapters

Espandilite anquilosante. Clinica da Coluna Vertebral. Jamil Natour, Marcelo de Medeiros Pinheiro. 2015.

Princípios gerais da reabilitação nas doenças reu-

máticas. Tratado Brasileiro de Reumatologia. Jamil Natour, Anamaria Jones Martinez. 2015.

Anti-inflamatórios não hormonais (AINH). Atualização Terapêutica. Charles Helden de Moura Castro, Emilia Inoue Sato. 2014.

Doença de Behçet. Atualização Terapêutica. Emilia Inoue Sato. 2014.

Miopatias inflamatórias idiopáticas. Atualização Terapêutica. Luis Eduardo Coelho Andrade. 2014.

Esclerose sistêmica. Atualização Terapêutica. Cristiane Kayser. 2014.

Osteoporose involucional. Atualização Terapêutica. Vera Lucia Szejnfeld. 2014.

Lúpus eritematoso sistêmico. Atualização Terapêutica. Emilia Inoue Sato. 2014.

Reabilitação em reumatologia. Atualização Terapêutica. Jamil Natour, Anamaria Jones Martinez. 2014.

Síndrome de Sjögren. Atualização Terapêutica. Luis Eduardo Coelho Andrade. 2014.

Síndrome antifosfolípide. Atualização Terapêutica. Alexandre Wagner Silva de Souza, Emilia Inoue Sato. 2014.

Vasculites sistêmicas. Atualização Terapêutica. Alexandre Wagner Silva de Souza, Emilia Inoue Sato. 2014.

Systemic vasculitis. Autoimmunity from bench to bedside. Alexandre Wagner Silva de Souza. 2013.

Lúpus Eritematoso sistêmico. Guias de Medicina de Urgência. Emilia Inoue Sato, Alexandre Wagner Silva de Souza. 2013.

Monoartrite aguda. Medicina de Urgência. Alexandre Wagner Silva de Souza, Emilia Inoue Sato. 2013.

Bases bioquímicas e fisiológicas da nutrição. Charles Helden de Moura Castro, Vera Lucia Szejnfeld, Marcelo de Medeiros Pinheiro. 2013.

Doenças da coluna vertebral. Reumatologia Diagnóstico e Tratamento. Jamil Natour. 2013.

Grants

<http://www.posgrad.epm.br/osgrad/AnuarioCamaraPGEPM.asp?id=33009015031P7&IdAv=5>

PhD Thesis (2015)

Atila Granados Afonso de Faria. Hemolytic activity of C2 complement in patients with hepatitis C

virus infection. Supervisor: Luiz Eduardo Coelho Andrade.

Vaneska da Graca Cruz. Effectiveness of transcutaneous electrical stimulation for pain control in patients with acute low back pain. Supervisor: Jamil Natour.

Gerson Dierley Keppeke. Autoimmune response to IMPDH2 and cell biology aspects of “rods and rings” structures recognized by anti-IMPDH2 antibodies. Supervisor: Luiz Eduardo Coelho Andrade.

MSc Thesis (2015)

Monica Simon Prado. Antinuclear antibodies (ANA) titer and pattern in systemic erythematosus lupus and association with disease activity. Supervisor: Luis Eduardo Coelho Andrade.

Aurora de Fatima Gazolin Cecilio Mafra Cabral. Physical activity questionnaires do not accurately estimate fitness in elderly women. Supervisor: Vera Lucia Szejnfeld.

Danielle Cristiane Baldo. Autoimmune humoral response and biochemical markers of liver disease in asymptomatic individuals with anti-mitochondrial antibodies. Supervisor: Luiz Eduardo Coelho Andrade.

Michele Vieira Nery Cabral. The effect of progressive resistance training program in hand osteoarthritis: a randomized blind controlled trial. Supervisor: Jamil Natour.

Aline Cristina Orlandi. Reproducibility of the questionnaire ‘Ankylosing Spondylitis: What do You Know’ to the Portuguese language. Supervisor: Jamil Natour

Marcela Ushida Barbosa. Body composition analyzes in Brazilian men: normative data. Supervisor: Vera Lucia Szejnfeld.

Bruna Aurora Nunes Cavalcante. The impact of obesity on the prevalence of osteoporosis and fragility fractures in women: analysis of two epidemiological studies in Brazil. Supervisor: Marcelo de Medeiros Pinheiro.

Louise Tandaya Bendahan. Clinical, laboratorial and radiographic characteristics in patients with ankylosing spondylitis with symptoms after age 45 years and older. Supervisor: Marcelo de Medeiros Pinheiro.

Christine Brumini. Effect of knee orthosis in elderly patients with knee osteoarthritis: a randomized controlled trial. Supervisor: Anamaria Jones Martinez.

Felipe Martinelli Lourenzi. Effect of a progressive resistance training to improve functional capacity in patients with rheumatoid arthritis. Supervisor: Jamil Natour.

Eider da Silva Lima. Translation, cultural adaptation and reproducibility of Oxford Shoulder Score Questionnaire to Portuguese. Supervisor: Anamaria Jones Martinez.

Beatriz Figueiredo Leite. Food intake, metabolic analysis and oxidative stress in patients with psoriatic arthritis. Supervisor: Marcelo de Medeiros Pinheiro.

International cooperations

University of Gainesville, Florida, USA – Prof. Edward K L Chan.

Paris Descartes University, INSERM U1016, Institut Cochin, Sorbonne Paris Cité, Paris, France – Prof. Yannick Allanore.

University Medical Center Groningen (UMCG) – University of Groningen, Netherlands. Dra. Johanna Westra.

University of Alberta, Edmonton, Canada -Prof. Walter P Maksymowych, Department of Medicine; Prof. Robert G Lambert, Department of Radiology and Diagnostic Imaging.

University of South Carolina, Columbia, SC, USA – Prof. Nitin Shivappa, Cancer Prevention and Control Program; Prof. James R Hebert, Department of Epidemiology and Biostatistics, Arnold School of Public Health.

Prizes

National:

Luiz Vertzman Award: “Ultrasonographic cut values for AR detection in small, medium and large joints: a controlled study with healthy individuals”, Brazilian Society of Rheumatology. Student: Flávia Soares Machado. Supervisor: Rita Nely Furtado.

International:

“Dresden Prize for the Study on Autoantibodies -1st place- 2013”; Student: Gerson D Keppeke. Supervisor: Luis Eduardo Coelho Andrade.

“12th International Workshop on autoimmunity and autoantibodies -3rd place- 2014”; Student: Gerson D Keppeke Supervisor: Luis Eduardo Coelho Andrade.

Patents

Patent (INPI), Number: BR 10 2016 009754 1;
Title: Method of detection of adequate intake of inosine monophosphate dehydrogenase 1 and 2 enzyme inhibitor, use of the method and kit to perform the method. Gerson D. Keppeke; Prof. Luis Eduardo Coelho Andrade.

Financial support

Fapesp; Capes; CNPq; Sociedade Brasileira de Reumatologia; Instituto Fleury; Laboratório de Análises Clínicas e Patologia do Hospital Israelita Albert Einstein.

Facilities

Please see <http://ppg.unifesp.br/reumatologia>

Psychiatry and Medical Psychology

PhD and MSc Degrees

Home page

<http://psiquiatriaunifesp.posgrad.com.br>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1439

Coordinator

Andrea Parolin Jackowski

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Historical background

The Postgraduate Program in Psychiatry and Medical Psychology was established in 1984 and offers both Masters and Doctorate degrees. Multidisciplinary in nature, the Program covers aspects of psychiatry and medical psychology ranging from anthropology to basic and applied neuroscience, with a strong epidemiological component. It has an active policy of exchange with national and international educational and research institutions, especially with the Institute of Psychiatry (IoP) and King's College in London, which enriches the training opportunities available to students in the Program and furthers the development of advanced research in psychiatry and mental health. Training of teachers for public institutions in emerging regions of the country is also emphasized, attracting students from other Latin American countries and assisting in the dissemination of research at the national level and among poor countries in the areas at stake. The strategy is to stimulate the development of research in the places of origin, focusing on the most relevant mental health problems. Research done by members of the Program, including studies published in the best journals in the field, has contributed to increased understanding of mental health.

Research focus

Diagnostic Methods in Psychiatry
Psychopathology and Clinical Psychiatry
Epidemiology and Social Psychiatry
Child and Adolescent Psychiatry
Psychiatric and Psychological Interventions

Selected publications

2013

Asevedo E, Gadelha A, Noto C et al. Impact of peripheral levels of chemokines, BDNF and oxidative markers on cognition in individuals with schizophrenia. *Psychiatry Research* 2013; 47: 1376-82.

Maciel MR, Mello AE, Fossaluza V et al. Children working on the streets in Brazil: predictors of mental health problems. *European Child and Adolescent Psychiatry* 2013; 22: 165-75.

Zugman A, Gadelha A, Assunção I et al. Reduced dorso-lateral prefrontal cortex in treatment resistant schizophrenia. *Schizophrenia Research* 2013, 148: 81-6.

Attux C, Martini LC, Elkis H et al. A 6-month randomized controlled trial to test the efficacy of a lifestyle intervention for weight gain management in schizophrenia. *BMC Psychiatry* (online) 2013; doi: 10.1186/1471-244X-13-60.

2014

Pan PM, Salum GA, Gadelha A et al. Manic symptoms in youth: dimensions, latent classes, and asso-

ciations with parental psychopathology. *Journal of the American Academy of Child and Adolescent Psychiatry* 2014; 53: 625-34.

Noto C, Ota VK, Gouvea ES et al. Effects of risperidone on cytokine profile in drug naïve first-episode psychosis. *International Journal of Neuropsychopharmacology* 2014; 18:1-8.

Abdalla RR, Madruga CS, Ribeiro M et al. Prevalence of cocaine use in Brazil: data from the II Brazilian National Alcohol and drugs survey (BNADS). *Addictive Behaviors* 2014; 39: 297-301.

Mendes dos Santos M, Quintana MI, Moreira FG et al. Drug-related disorders and the criminal and clinical background of the prison population of São Paulo State, Brazil. *PLoS One* (online) 2014; doi 10.1371/journal.pone.0113066

2015-2016

Zanini MA, Castro J, Cunha GR et al. Abnormalities in sleep patterns in individuals at risk for psychosis and bipolar disorder. *Schizophrenia Research* 2015; 169:262-7.

Schenberg EE, Alexandre JF, Filev R et al. Acute Biphasic Effects of Ayahuasca. *PLoS One* (online) 2015; 10.1371/journal.pone.0137202.

Andrade MC, Slade M, Bandeira M et al. Subjective distress in a representative sample of outpatients with psychotic disorders. *Journal of Affective Disorders* 2016; 189: 220-3.

Dos Santos PF, Wainberg ML, Caldas-de-Almeida JM et al. Overview of the mental health system in Mozambique: addressing the treatment gap with a task shifting strategy in primary care. *International Journal of Mental Health System* (online) 2016; doi: 10.1186/s13033-015-0032-8.

Books and chapters

Books

2013

Psiquiatria na Prática Clínica. Organizadores Jair Mari e Christian Keiling. Manole.

2014

Saúde Mental na Escola: o que os Educadores Devem Saber. Autores: Gustavo M. Estanislau; Rodrigo Affonseca Bressan; Colaboradores. Editora: Artmed.

Hospital de Custódia: prisão sem tratamento – fiscalização das instituições de custódia e tratamento psiquiátrico do Estado de São Paulo. Organizadores:

Quirino Cordeiro e Mauro Gomes Aranha de Lima. Publicação do Conselho Regional de Medicina do Estado de São Paulo (Cremesp).

2015

Autismo, linguagem e cognição. Sheila Cavalcante Caetano; Maria Célia Pereira Lima-Hernandes; Fraulein Vidigal de Paula; Briseida Dogo Resende; Marcelo Módolo (orgs.). Paco Editorial. Páginas: 124.

Book chapters

2013

Economia da saúde aplicada à saúde mental. Denise Razzouk. In: Mateus, MD. (Org.). Políticas de Saúde Mental. 1ed.SAO PAULO: Instituto de Saúde, 2013, v. 1, p. 230-251.

2014

Interconsulta Psiquiátrica. Vanessa Cítero In: Atualização Terapêutica: Diagnóstico e Tratamento 2014/2015

2015

Psychopharmacology in the Treatment of Eating Disorders. Hay, Phillipa & Claudino, Angélica M. John Wiley & Sons, Ltda.

Grants

PALOP Mental Health Implementation Research Training Program.

Urbanicity, childhood trauma and adolescent comorbid psychopathology in Brazil and Chile.

Trauma, mental health and early childhood development.

Public health implications of alcohol industry corporate social responsibility programs (Latin America).

Post-traumatic stress disorder and neuroprogression: new approaches in understanding the effect of violence on mental functioning.

National Institute of Public Policies of Alcohol and Other Drugs.

Mother's Support Program (PAM) and Teacher Support Program (PAP) to improve cognitive, social and communication skills in preschool children, improve maternal quality of life and reduce domestic violence.

Prevention in schizophrenia and Bipolar disorder. From neuroscience to community: a multiphase,

multimodal and translational platform for investigation and intervention.

High risk cohort for psychiatric disorders in childhood: neuroimaging follow-up after 3 years.

Neurodevelopment and the course of mental disorders in childhood: factors of remission and evolution. A follow-up neuroimaging study after 3 years.

The progression of telomeric shortening in bipolar disorder: the accelerated aging paradigm.

Incidence and effects of toxic stress on neurodevelopmental, cognitive and socioemotional outcomes in children and adolescents: a cross national comparative collaboration.

Evolution of changes in brain energy metabolism along different stages of bipolar disorder.

Construction and validation of the musical perception skill (AHPM) battery for elementary school children.

A double-blind, randomized, placebo-controlled study of the effects of repetitive transcranial magnetic stimulation in obese people with binge eating disorder.

PhD Thesis (2015)

Fátima Luchesi. The impact of Psychiatric Symptoms in patients experiencing pain with Sickle Cell Disease in Two Countries. Supervisor: Vanessa de Albuquerque Citero.

Carolina Grego del Cole. Analysis of Adaptive Behavior in Williams-Beuren Syndrome, Down Syndrome and Autism Spectrum Disorder. Supervisor: Andrea Parolin Jackowski.

Patrícia Ferreira Mattos. The Dissociative Experience in Trauma: A Qualitative Approach. Supervisor: Marcelo Feijó de Mello.

Daniela Arroyo Esquivel. A Study of Mental Health and Quality of Life of Residents of Orthopedics and Traumatology, Unifesp-EPM. Supervisor: Latife Yazigi.

Cristiano de Souza Noto. Peripherals Biomarkers in Psychotic Disorders: The Influence of clinical manifestation, stage of disease and treatment. Supervisor: Elisa Macedo Brietzke.

Tais Silveira Moriyama. Psychopathological significance of the Psychotic Experiences in Childhood and Adolescence. Supervisor: Rodrigo Affonseca Bressan.

Marco Antônio Gomes del Aquilla. Relationship Between Decoding Skills in Reading and Cortical

Thickness in scholars from 7 to 10 Years of Age. Supervisor: Acioly Luiz Tavares de Lacerda.

Rodrigo Barbachan Mansur. The Evolution of Changes in Brain Energy Metabolism Along the Different Stages of Bipolar Disorder. Supervisor: Elisa Macedo Brietzke.

MSc Thesis (2015)

Thiago Blanco Vieira. Implementation of a Specialization Course in Mental Health of Children and Adolescents and Assessment of the Impact of the Intervention. Supervisor: Maria Conceição do Rosário.

Rubens Luis Folchini Fernandes. The Choice of Psychiatry as Career in the Sixth Year of Medical School: A Critical Review in Brazil and the world. Supervisor: Vanessa de Albuquerque Citero.

Marcio Andrei Zanini. Changes in the sleep pattern in individuals at mental risk for psychosis and bipolar disorder. Supervisor: Elisa Macedo Brietzke.

Christian da Silva Costa. Psychometric properties of the Pcl-Sv in prison population in Brazil: A validation study of the Pcl-Sv scale. Supervisor: Marcelo Feijó de Mello.

Paula Maria Serafim. A Clinical Trial for evaluation of Psychoeducation Effectiveness for adherence to treatment in subjects with Post Traumatic Stress Disorder. Supervisor: Marcelo Feijó de Mello.

Ruth Bartelli Grigolon. Food Consumption in Adolescents with Type I Diabetes: A Comparative Study with Healthy Subjects. Supervisor: Angelica de Medeiros Claudino.

Joao Alencar Pedrini. Linguistic analysis in Patients with Post Traumatic Stress Disorder in Treatment in an Outpatient Specialty clinic: A Qualitative Approach. Supervisor: Marcelo Feijó de Mello.

Teresa Maria dos Santos. Effects of a Stress Reduction Program, Based on Mindfulness in Brazilian Nursing Professionals: Quantitative and Qualitative Evaluation. Supervisor: Luiz Antonio Nogueira Martins.

Mariana Cepollaro Diana. Characterization of the effects of a Nitric Oxide Donor in an Animal Model of Schizophrenia. Supervisor: Vanessa Costhek Abilio.

Walter Alves de Miranda. Playful techniques to accommodate and desensitize children for a brain MRI scans. Supervisor: Andrea Parolin Jackowski.

Thais Graziela Francisco Cavalcante. Psychoeducational groups for Parents of Children with Autism

Spectrum Disorder: a review of the literature and a pilot study. Supervisor: Gerardo Maria de Araujo Filho.

Aline Camargo Ramos. Assessment of adenosinergic drugs effect in an Animal Model of Schizophrenia. Supervisor: Mariana Bendlin Calzavara.

Marcelo Pena Paoli. Chronic emptiness feeling in Patients with borderline personality disorder: A Qualitative Study with a Psychoanalytic approach. Supervisor: Latife Yazigi.

Tatiana Roccato Fortes. Alexithymia in Women with Low Education and Fibromyalgia Diagnosis: A Case-Control study. Supervisor: Isabel Altenfelder Santos Bordin.

Maria Helena Brandalise. Evaluation of Resilience in Patients with Refractory Temporal Lobe Epilepsy submitted to cortical-amygdalohippocampectomy. Supervisor: Gerardo Maria de Araujo Filho.

Elvis Henrique Santos Andrade. Hair concentration of Cortisol in Patients with First-Episode Psychotic. Supervisor: Elisa Macedo Brietzke.

Raphael Swwan Rodrigues. Association Between Sociodemographic, Clinical and neuropsychological variables and Pharmacological Treatment response in Patients with Attention Deficit Hyperactivity Disorder (ADHD). Supervisor: Maria Conceição do Rosário.

Nilson Rodrigues da Silva. Characteristics of Depressive Symptoms in Medical Students in a Orientation Service in a School of Medicine. Supervisor: Luiz Antonio Nogueira Martins.

Juliana de Almeida Castro Marinho. Evaluation of Patient Profile in a Specialized Ambulatory in Chemical Dependency. Supervisor: Gerardo Maria de Araujo Filho.

Cinthia Hiroko Higuchi. Factorial structure of the Positive and Negative Syndromes scale (PANSS) in Brazil: A convergent validation of the Brazilian version. Supervisor: Ary Gadelha de Alencar Araripe Neto.

Denisse Claudia Jaen Varas. The Impact of Exposure to Violence and Other Traumatic Events on Mental Disorders in Adolescents and Young Adults in the City of São Paulo. Supervisor: Jair de Jesus Mari.

International cooperations

Universidade Eduardo Mondlane (UEM);
Vanderbilt Institute for Global Health (VIGH);
Columbia University;

Institute of Psychiatry, Psychology and Neuroscience IoPPN) – Kings College London

London School

Imperial College – London;

University College of London

Texas Tech University;

University of Toronto;

University of Tromsø (Noruega);

University of Western Sydney;

University of Newcastle;

Keele University;

Simon Fraser University;

Prizes

Capes Thesis Award 2013 in the area of Medicine II – Hugo Cogo-Moreira. Thesis: Musical education, musical perception and its relation with the reading of children with reading problems: a systematic review, randomized clinical trial without placebo and structural modeling. Supervisor: Jair de Jesus Mari.

Capes Thesis Award 2015 in the area of Medicine II – Ary Gadelha de Alencar Araripe Neto, Thesis: “Characterization of the role of oligopeptidases (NDEL1 e ECA) in schizophrenia: a translational and multimodal study” Supervisor: Rodrigo Affonso Bressan.

Lóreal Prize 10th edition of “For Women in Science”, Elisa Brietzke; Area: Life Sciences, with the work “The Paradigm of Accelerated Aging in Bipolar Disorder”.

Young Leaders Medical Program Award from the National Academy of Medicine 2015 – Ary Gadelha de Alencar Araripe Neto.

The Gerald L. Klerman Award of the Depression and Bipolar Support Alliance – Young Investigator – 2015 – Rodrigo Barbachan Mansur.

Patents

Ayashi MAF; Araripe Neto AG; Bressan RA. Method and kit for diagnosis of neuropsychiatric conditions, method for evaluating treatments of neuropsychiatric conditions and method of identification of potentially useful drugs in the treatment of neuropsychiatric conditions, 2010. Country: Brazil. Nature: Patent of Invention. Record number: 0000221008046048. Date of deposit: 09/11/2010. The present invention provides a way of diagnosing neuropsychiatric conditions based on the measure-

ment of the enzymatic activity of a protein linked to cerebral neurodevelopment. In particular, it contributes significantly to the diagnosis of schizophrenic patients, representing an important tool for a more precise diagnosis, since it is based on the molecular knowledge that determines this pathology.

Financial support

Fapesp, CNPq, Capes, NIH, IDRC.

Facilities

Please see <http://psiquiatriaunifesp.posgrad.com.br>

Other information

Capes has awarded the Postgraduate Program in Psychiatry and Medical Psychology a rating of 6, the second highest possible rating. The Program has more than 100 Master and PhD students who come from Brazil, North America, South America, Latin America and Africa. There are currently 28 supervisors in the Program (23 permanent supervisors). Eight of our permanent supervisors have received research productivity grants from CNPq.

Psychobiology

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/psicobiologia>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1440

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Historical background

The Postgraduate Program in Psychobiology began in 1971 as part of the Pharmacology Program of Escola Paulista de Medicina, today the Universidade Federal de São Paulo. In 1987 it became an independent Program. It currently includes 25 supervisors who work in four areas of specialization: Medicine and Biology of Sleep, Medicine and Sociology of Drug Abuse, Cell and Molecular Bases of Behavior, and Neurobiology, Emotion, Cognition and Motivation.

The Psychobiology Program is the largest of its kind in Brazil, and is considered a Center of Excellence by Capes, the Federal Agency which ranks postgraduate programs. It participates in the World Health Organization (WHO) Drug Abuse Program and the Anti-Drug National Reference Center (Senad). The Sleep Institute is also considered a center of excellence by international organizations due to the quality of its service and scientific research.

From its inception through 2015 the Program has graduated 349 MScs and 237 PhDs, more than half of whom have taken lectureships and research positions in leading Federal or State institutions of higher education in Brazil. At present the Program hosts 33 MSc students, 56 PhD students, 58 undergraduates and 25 Post-Doctoral fellows. In 2015 the Program produced 175 papers in internationally indexed Journals.

Research focus

Research carried out in the Program can be classified into the four following fields:

Medicine and biology of sleep: The aim of this area is to develop and disseminate, through teaching, research, extension and diffusion, theoretical and practical knowledge in the field of sleep, contributing to the establishment of a community of professional health workers and researchers in this area. Studies on human subjects and animals include the effects of sleep deprivation, sleep pathologies, and epidemiology of sleep.

Medicine and sociology of drug abuse: The aim of this area is to provide multidisciplinary training, integrating knowledge from the fields of medicine, biology and psychology, in the study of psychoactive substances and problems associated with their use. Research includes studies on the underlying neurobiology of the effects of psychotropic substances (neuroadaptive processes, risk factors, genetic, epigenetic, psychosocial and environmental influence), as well as the development and/or evaluation of innovative pharmacological and psychosocial interventions aimed at different populations of substance abusers.

Cellular and molecular bases of behavior: Studies in this area are aimed at understanding the molecular and neurobiological mechanisms of

behaviors in healthy and pathological conditions, including studies both in humans and animals, as well as the impact of stressful events and therapeutic interventions in triggering such changes. Behavioral changes in models of genetic and molecular mechanisms related to these diseases are also a focus of research.

Neurobiology, emotion, cognition and motivation. This area includes research with humans and laboratory animals which aim at uncovering the underlying neurobiological mechanisms of various types of healthy and pathological behaviors, including investigation of neurotransmitter systems, inactivation of brain structures, complementary medicine techniques and various manipulations, including pharmaceuticals.

Selected publications

Mazzotti DR, Tufik S, Andersen ML. A stepforward in understanding the association between social attainment and health disparities: evidence from late life telomere length and educational level. *Brain Behav Immun.* 2013 Jan;27(1):13-4. doi: 10.1016/j.bbi.2012.09.005.

Coelho CAO, Ferreira TL, Soares JC, Oliveira MG. Hippocampal NMDA receptor blockade impairs CREB phosphorylation in amygdala after contextual fear conditioning. *Hippocampus.* 2013 Jul;23(7):545-51. doi: 10.1002/hipo.22118.

Opaleye ES, Ferri CP, Locatelli DP, Amato TC, Noto AR. Nonprescribed use of tranquilizers and use of other drugs among Brazilian students. *Rev. Bras. Psiquiatr.* vol.36 no.1 São Paulo Jan./Mar. 2014.<http://dx.doi.org/10.1590/1516-4446-2013-1180>.

Castro LS, Poyares D, Leger D, Bittencourt L, Tufik S. Objective prevalence of insomnia in the São Paulo, Brazil epidemiologic sleep study. *Ann Neurol.* 2013 Oct;74(4):537-46. doi: 10.1002/ana.23945.

Cavagnolli DA, Esteves AM, Castiglione MLV, Batista IR, Bressan RA, Tufik S, de Mello MT. Dopamine transporter shown by SPECT in patients with Periodic Leg Movement after acute physical exercise. *Med Sci Sports Exercise.* 2013;45(2):224-9.

Pildervasser JVN, Abrahao KP, Souza-Formigoni MLO. Distinct behavioral phenotypes in ethanol-induced place preference are associated with different extinction and reinstatement but not behav-

ioral sensitization responses. *Front Behav Neurosci.* 2014;8:267. doi: 10.3389/fnbeh.2014.00267.

Silva VC, Fernandes L, Haseyama EJ, Agamme ALDA, Shinohara EMG, Muniz MTC, D'Almeida V. Effect of vitamin B deprivation during pregnancy and lactation on homocysteine metabolism and related metabolites in brain and plasma of mice offspring. *PLoS ONE.* 2014;9(4):e92683.

Araujo P, Tufik S, Andersen ML. Neonatal caffeine therapy and sleep: important findings to guide new approaches and reduce concerns. *Am J Respir Crit Care Med.* 2014;190(11):1323-4. doi: 10.1164/rccm.201409-1682LE.

Girardi CE, Zanta NC, Suchecki D. Neonatal stress-induced affective changes in adolescent Wistar rats: early signs of schizophrenia-like behavior. *Front Behav Neurosci.* 2014;8:319. doi: 10.3389/fnbeh.2014.00319.

Hirotsu C, Tufik S, Andersen ML. Sleep apnea as a potential threat to reproduction. *Sleep.* 2014;37(11):1731-2. doi: 10.5665/sleep.4158.

Nakamura AE, Opaleye D, Tani G, Ferri CP. Dementia: underdiagnosis in Brazil. *Lancet.* 2015;385:418-9. doi:10.1016/S0140-6736(15)60153-2.

Fernandes L, Calegare BF, Cavalcante-Silva V, D'Almeida V. Detraining in pregnancy and/or lactation modulates neuropeptidergic hypothalamic systems in offspring mice. *Endocrine.* 2015;50(3):715-24. doi: 10.1007/s12020-015-0612-z.

Galduróz JC, Ramos AC, Santos-Galduróz RF, Liang JW, Shanker VL, Groves M, Weintraub D, Papay K, Xie SX. Naltrexone for impulse control disorders in Parkinson disease: A placebo-controlled study. *Neurology.* 2015;84(13):1386-7. doi: 10.1212/WNL.0000000000001458.

Tufik SB, Berro LF, Andersen ML, Tufik S. Prevalence and classification of sleep disordered breathing. *Lancet Respir Med.* 2015;3(4):263-4. doi: 10.1016/S2213-2600(15)00054-5.

Piovezan RD, Abucham J, Santos RVT, Mello MT, Tufik S, Poyares D. The impact of sleep on age-related sarcopenia: possible connections and clinical implications. *Ageing Res Rev.* 2015;23(Pt B):210-20. doi: 10.1016/j.arr.2015.07.003.

Books and chapters

Andrade ALM, De Micheli D, Silva EA, Souza-Formigoni MLO, Goeldner FO. Neural development in adolescence. In: De Micheli D, Andrade ALM, Sil-

va EA, Souza-Formigoni MLO, editors. Drug abuse in adolescence: neurobiological, cognitive, and psychological issues. Cham: Springer; 2016. p. 23-33.

De Micheli D, Andrade ALM, Silva EA, Souza-Formigoni MLO, editors. Drug abuse in adolescence: neurobiological, cognitive, and psychological issues. Cham: Springer; 2016. 200 p.

Justo LP, Calil HM. Relationships between mood disorders and substance abuse during adolescence. In: De Micheli D, Andrade ALM, Silva EA, Souza-Formigoni MLO, editors. Drug abuse in adolescence: neurobiological, cognitive, and psychological issues. Cham: Springer; 2016. p. 173-87.

Pires GN, Andersen ML, Tufik S. Sleep and drug abuse during adolescence. In: De Micheli D, Andrade ALM, Silva EA, Souza-Formigoni MLO, editors. Drug abuse in adolescence: neurobiological, cognitive, and psychological issues. Cham: Springer; 2016. p. 137-55.

Ribeiro RL, Yamaguchi S, Cracasso SP, Peralta F, Rezende E. Neurological and cognitive changes resulting from chronic drug use. In: De Micheli D, Andrade ALM, Silva EA, Souza-Formigoni MLO, editors. Drug abuse in adolescence: neurobiological, cognitive, and psychological issues. Cham: Springer; 2016. p. 157-72.

Grants

The financial support of the non-profit association Associação Fundo de Incentivo à Pesquisa (AFIP) has been crucial to the survival of the Program, especially in relation to the provision of staff, materials and infrastructure. The Program is also supported by Capes and several of the Program's members receive research funding from national agencies such as Fapesp and CNPq.

Other grants include:

National Policy on Drugs (SENAD) of the Ministry of Justice No. 01/2015: "Effects of biperiden (muscarinic antagonist) in dependence on cocaine / crack and alcohol: preclinical studies and clinical." José Carlos Fernandes Galduróz.

Canadian Institutes of Health Research (CIHR) / Philips-Respiroics Inc: "An international, multicenter, open, parallel group, prospective, randomized, controlled trial to determine the effectiveness of treatment with continuous positive airways pressure (CPAP) in addition to standard care in cardiovascular reducing (CV) morbidity and mortality in

Patients with co-existing CV disease and moderate-severe obstructive sleep apnea (OSA)." Lia Rita Azeredo Bittencourt.

Sanofi-Aventis: International multicenter study LTE. Sergio Tufik.

Biolab Brazil: Study on safety and efficacy of Serenus. Sergio Tufik.

Laboratory Servier: Agomelatine study. Sergio Tufik (co-investigator).

PhD Thesis (2015)

Murilo Dattilo. Effects of sleep deprivation on muscle recovery parameters, after eccentric action-induced damage. Supervisor: Marco Tulio de Mello.

Aline da Costa Soeiro. Impact of individual differences in locomotor sensitization on conditioned reward in mice: a comparison between modafinil and methamphetamine. Supervisor: Isabel Marian Hartmann de Quadros.

Adriana Suzart Ungaretti Rossi. Attentional patterns in children with Attention-Deficit/Hyperactivity Disorder of inattentive type and white matter correlates. Supervisor: Orlando Francisco Amodeo Bueno.

Sandra Souza de Queiroz. Physiological and behavioral aspects of healthy young men undergoing sleep restriction. Supervisor: Marco Tulio de Mello.

Patrick Rademaker Burke. Effects of controlled release zolpidem in sleep quality and quantity in cardiologic ICU patients. Supervisor: Dalva Lucia Rollemberg Poyares.

Tatiana de Castro Amato. Adaptation and feasibility study of a risk reduction program of alcohol consumption to private schools in Brazil. Supervisor: Ana Regina Noto Faria.

Carolina Cunha Nikaedo. Socioeconomic status and the relationship with executive function and language in the first school years. Supervisor: Orlando Francisco Amodeo Bueno.

Karen Tieme Nozoe. Health profile of caregivers-mothers of sons with Duchenne Muscular Dystrophy. Supervisor: Monica Levy Andersen.

Gabriel Natan de Souza Pires. Systematic reviews and meta-analyses of the effects of sleep deprivation on anxiety in humans and rodents. Supervisor: Monica Levy Andersen.

Karina Agustini Zanin. Effects of repeated administration of zolpidem on different memory stages in mice subjected to sleep restriction. Supervisor: Dalva Lucia Rollemberg Poyares.

Anna Carolina Ramos. The study of impulsivity on cocaine/crack addiction and gambling disorder: neurocognitive and neuroimaging aspects. Supervisor: Carlos Fernandes Galduroz.

Ricardo Teixeira Mazzeo. Electrophysiological patterns in the hippocampus, amygdala and medial prefrontal cortex in the retrieval of aversive conditioning. Supervisor: Maria Gabriela Menezes de Oliveira.

Andre Luiz Monezi Andrade. Evaluation of adherence to and effects of a virtual intervention to alcohol users. Supervisor: Maria Lucia Oliveira de Souza Formigoni.

Daniel Ninello Polesel. Identification of the main associated factors with obstructive sleep apnea syndrome in women. Supervisor: Helena Hachul de Campos.

Viviane Grassmann Marques. The effect of physical training and fish oil consumption in Attention Deficit/Hyperactivity Disorder Children. Supervisor: José Carlos Fernandes Galduroz.

Simone Alarcon Oncalla e Sa. The Wallonian Integrative Therapy on the intervention of the Disorder of Attention Deficit Hyperactivity. Supervisor: Orlando Francisco Amodeo Bueno.

Juliana Pedrosa Moraes Vilela de Castro. Sleep and wake-sleep cycle study in at-risk mental states individuals for psychosis and bipolar disorder. Supervisor: Sergio Tufik.

MSc Thesis (2015)

Thays Brenner dos Santos. Temporal and contextual components in fear conditioning and the effect of prelimbic cortex reversible inactivation. Supervisor: Maria Gabriela Menezes de Oliveira.

Leonardo Brito Lopes e Silva. Behavioral effects of sleep deprivation on mice subjected to social isolation: implications in schizophrenia. Supervisor: Sergio Tufik.

Thais de Moura Guimarães. Cardiovascular parameters in Mild Obstructive Sleep Apnea. Supervisor: Lia Rita Azeredo Bittencourt.

Luciane Simonetti. Reduction of interference during memory consolidation in amnesiac patients. Supervisor: Orlando Francisco Amodeo Bueno.

Carolina Fioroto Chaves. Involvement of the autophagic pathway in successful aging. Supervisor: Vania D Almeida.

Luisa Mendes Amando de Barros. Analysis of sleep influence in memory maintenance and in pro-

tein kinase M zeta expression. Supervisor: Monica Levy Andersen.

Lenise Jihe Kim. Effects of sleep restriction on an animal model of cerebral ischemic injury. Supervisor: Monica Levy Andersen.

Lais de Oliveira Marchioro. Effects of paradoxal sleep deprivation on the deployment and progression of murine melanoma metastasis. Supervisor: Deborah Suchecki.

Joao Paulo Pereira Rosa. The influence of psychological variables on adhesion and adherence to an exercise program. Supervisor: Marco Tulio De Mello.

Mariana Pantaleao del Re. The influence of a protein meal on the thermic effect of food in obese men with Obstructive Sleep Apnea. Supervisor: Marco Tulio de Mello.

Leo Heikiti Maeda Arruda. Identification of emotional facial expressions in patients with mesial temporal lobe epilepsy. Supervisor: Orlando Francisco Amodeo Bueno.

Hernando Ivan Padilla Luna. Alcohol as a risk factor for dementia. Supervisor: Cleusa Pinheiro Ferri.

International cooperations

Canadian Institutes of Health Research (CIHR)/Philips-Respironics Inc. – Prof. Douglas Bradley and Profa. Lia Rita Azeredo Bittencourt.

Curtin University, Australia – Profa. Nyanda McBride and Profa. Ana Regina Noto.

Department of Psychiatry and Behavioral Science, University of Washington, Seattle, Washington, USA. – Profa. Sarah Bowen and Profa. Ana Regina Noto.

The George Institute for International Health, Sydney, Australia – Prof. Doug McEvoy and Profa. Lia Rita Azeredo Bittencourt.

Department of Experimental Psychology, University of Sussex, UK – Profs. Jennifer Rusted, Simon Evans and Profa. Sabine Pompéia.

Sunnybrook Health Sciences Centre, Toronto, Canada. – Prof. Fernando Morgadinho dos Santos Coelho.

University of Chicago, Chicago, Illinois, USA – Profa. Eve Van Cauter and Prof. Jair Ribeiro Chagas.

University of Strasbourg, Strasbourg, France – Prof. Jean-Jacques Bourguignon and Prof. Jair Ribeiro Chagas.

Mayo Clinic, Minnesota, USA – Prof. Jair Ribeiro Chagas and Isobel Scarisbrick.

Institut Curie, Paris France – Prof. Jair Ribeiro Chagas and Elaine Del Nery.

Economic and Social Research Council (ESRC) – Profa. Cleusa Pinheiro Ferri.

Yerkes National Primate Research Institute, Emory University, Atlanta, Georgia, USA – Prof. Leonard Howell and Profa. Monica Levy Andersen.

University of Chicago, Chicago, Illinois, USA – Prof. David Gozal and Profs. Monica L. Andersen and Sergio Tufik.

Organização Mundial de Saúde (OMS) e pesquisadores do Trimbos Institute Netherlands (Inst. Mental Health and Addiction) da Holanda, da Bielorrússia, da Índia (NDDTC, All India Institute of Medicine and Science – AIIMS) e do México (Instituto Nacional de Psiquiatria Ramon de la Fuente Muniz) – Profa. Maria Lucia Oliveira de Souza Formigoni.

Stanford University, Palo Alto, California, USA – Prof. Fernando Morgadinho Santos Coelho.

Institut National de la Santé et de la Recherche Médicale (INSERM), France – Prof. Pierre-Hervé Luppi, Prof. Claudio Marcos Teixeira de Queiroz, Instituto do Cérebro, UFRN e Profa. Debora Hipolide.

Universidade de Cambridge, Universidade de Limógenes na França e Universidade de Cotonou em Benin na África e Universidade Federal da Bahia – Profa Cleusa Ferri.

Instituto de Psiquiatria do King's College de Londres. Prof. Martin Prince e Profa. Cleusa Pinheiro Ferri.

University of York, Dep. of Psychology – Prof. Allan Baddeley, Profa. Sabine Pompéia, Profa. Mônica Carolina Miranda e Prof. Orlando F. A. Bueno.

Intercâmbio Brasil-Uruguai – Prof. Pablo Tortero, Uruguai, e Profa. Vânia D'Almeida,

Centers for Disease Control and Prevention (CDC), Atlanta, EUA – Prof. Fernando Morgadinho Santos Coelho.

Sleep Apnea Genetic International Centers. Collaborators include sleep-disorder and cardiovascular experts from the U.S.A., Iceland, Germany, France, Taiwan, Australia, and Brazil.

The University of Luxembourg – Prof. Romain Martin e Profs. Orlando Bueno e Monica Miranda.

Prizes

Santander Health Science and Innovation Award: “Impact of sleep disorders on metabolic profile and cardiovascular risk: a prospective population study

in the city of São Paulo”. Capes Elsevier 2015 Award in the Health Sciences category. Sergio Tufik.

Elsevier Reviewer Recognition – Profa. Dalva Lucia Poyares.

Financial support

Fapesp, Capes, CNPq, NIH, Afip.

Facilities

Various research laboratories, seminar rooms, and offices support the Program's ongoing investigations. Research laboratories outside the Department provide additional resources for research training and collaboration. Program facilities include:

Biomedical Sciences Building (Edifício de Ciências Biomédicas – Unifesp), first floor, total area of 582 m². This facility includes offices for Psychobiology faculty and students, a classroom, the Departmental office, a Biochemistry Laboratory, an Imaging Room (film reading analyses), and a graphic arts room equipped with a high-speed high capacity Silicon Graphics Indigo workstation which will be important for our educational and outreach initiatives.

Psychobiology Vivarium Building, four floors, total area of 466 m². In addition to the vivarium per se (housing rats and mice), the building holds a number of behavioral testing rooms, a room for recording sleep parameters in rodents, histology and surgery rooms, and a dedicated area for sleep deprivation experiments. All of these rooms have temperature and dark-light controls.

Clinical Psychopharmacology Building (2,500 m²), located at Rua Napoleão de Barros, 925, Vila Clementino, São Paulo, including the Clinical Analyses Laboratory (3rd floor) and the Sleep Laboratory (2nd floor), total area 2,500 m². The Sleep Laboratory occupies a 408 m² area and includes 10 bedrooms with suites. Each bedroom is equipped with infra-red monitoring cameras, bi-directional communication systems and a central monitoring system. In addition to polysomnographical analyses, the Sleep Laboratory is used for digital brain mapping, evoked potential analyses and multiple latency sleep tests. The 1st floor of the building contains 12 offices, two meeting rooms, two research laboratories and one dental office. On the ground floor there are 5 doctor's offices, patient waiting

rooms, a Library with 3,500 titles and 15 journal subscriptions, Medline and Current Contents. A 75-seat auditorium is also located on the ground floor. In the basement there is a kitchen, laundry room, dressing rooms, dining room, cold room, storage room and parking.

Other information

In addition to our research programs, we also partner with government agencies to develop social and educational activities, especially in the area of drug abuse, through courses for professional and community empowerment [project SUPERA (site in Portuguese <http://www.supera.senad.gov.br/>)], and online education involving brief interventions for drug abuse for health workers and religious and community leaders Fé na Prevenção (site in Portuguese <http://www.fenaprevencao.senad.gov.br/>). In the cognitive field, the Program has strong links with the CPN (Paulista Center for Neuropsychology: site in Portuguese <http://www.cpnsp.com.br/>), which provides interdisciplinary assistance and cognitive assessment of children with neurodevelopmental and learning disorders, genetic syndromes and acquired brain injury, as well as cognitive rehabilitation for adults. Educational outreach in this area includes symposia and courses (e.g. Seminar on Inclusion and Singularity; Project Mirim: Interdisciplinary Models of Rehabilitation in Childhood). In the area of sleep, as of 2015 the Program had graduated 835 Sleep Specialist MDs or other health professionals, trained 975 polysomnography technicians, assisted in the development of national equipment and legal aspects related to sleep disorders, and taken part in international consensuses on sleep-related pathologies. Our Program is also involved in improving preschool, primary and secondary education. We implemented the PERAE/SHAHRP project, a school-based curriculum program that aims to reduce alcohol-related harm, and the Prevention of Drug Use Among Students From Public Schools, in conjunction with the Ministry of Health. We also share information about techniques that enhance learning through Facebook, Youtube, and a Teacher Training Program in Cognitive Development.

Structural and Functional Biology

PhD and MSc Degrees

Home page

<http://bioestrufunc.posgrad.com.br>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1441

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Historical background

The Postgraduate Program in Structural and Functional Biology, initially known as the Postgraduate Program in Morphology, was certified by Capes in 1988 to offer Master degrees and in 1992 to offer PhD degrees. In 2009 the Program underwent a restructuring process which included recruitment of additional mentors and a new name. Our main goals are educating scientists and professors, as well as leading high-level research. Thanks to the excellent training provided by the 23 supervisors in the Program, all professors with national and international prominence in their fields, a high percentage of graduates from our Program go on to great positions in academia or in industry.

Research focus

Research in our Program falls into two main categories:

Cellular and Molecular Biology: cellular and molecular biology applied to diseases of aging; applied structural and functional biology; reproductive biology.

Genetics: human and medical genetics; genetics and epigenetics of cancer.

Selected publications

2013

Girol et al. Anti-inflammatory mechanisms of the annexin a1 protein and its mimetic peptide ac2-26 in models of ocular inflammation in vivo and in vitro. *J Immunol.* 2013 Jun 1;190(11):5689-701.

Carvalho et al. DDIT3, STT3A (ITM1), ARG2 and FAM129A (Niban, C1orf24) in diagnosing thyroid carcinoma: variables that may affect the performance of this antibody-based test and promise. *Mod Pathol.* 2013 Apr;26(4):611-3.

Savage et al. Genome-wide association study identifies two susceptibility loci for osteosarcoma. *Nat Genet.* 2013 Jul;45(7):799-803.

Azpurua et al. IGF1R levels in the brain negatively correlate with longevity in 16 rodent species. *Aging (Albany NY).* 2013 Apr;5(4):304-14.

Ota et al. ZDHHC8 gene may play a role in cortical volumes of patients with schizophrenia. *Schizophr Res.* 2013 Apr;145(1-3):33-5.

2014

Ota et al. Changes in gene expression and methylation in the blood of patients with first-episode psychosis. *Schizophr Res.* 2014 Nov;159(2-3):358-64.

Santoro et al. Effect of antipsychotic drugs on gene expression in the prefrontal cortex and nucleus accumbens in the spontaneously hypertensive rat (SHR). *Schizophr Res.* 2014 Aug;157(1-3):163-8.

Ota et al. Evaluation of neurotransmitter receptor gene expression identifies GABA receptor changes: a follow-up study in antipsychotic-naïve patients with first-episode psychosis. *J Psychiatr Res.* 2014 Sep;56:130-6.

Araujo et al. Genome-wide copy number analysis in a family with p.G533C RET mutation and medullary thyroid carcinoma identified regions potentially associated with a higher predisposition to lymph node metastasis. *J Clin Endocrinol Metab.* 2014 Jun;99(6):E1104-12.

Pacheco-Costa et al. High bone mass in mice lacking Cx37 because of defective osteoclast differentiation. *J Biol Chem.* 2014 Mar 21;289(12):8508-20.

2015

da Silva Augusto et al. A membrane-bound eIF2 alpha kinase located in endosomes is regulated by heme and controls differentiation and ROS levels in *Trypanosoma cruzi*. *PLoS Pathog.* 2015 Feb 6;11(2):e1004618.

Cordioli et al. Are we really at the dawn of understanding sporadic pediatric thyroid carcinoma? *Endocr Relat Cancer.* 2015 Dec;22(6):R311-24.

Noto et al. Depression, Cytokine, and Cytokine by Treatment Interactions Modulate Gene Expression in Antipsychotic Naïve First Episode Psychosis. *Mol Neurobiol.* 2015 Oct 22.

Moyses-Oliveira et al. Genetic mechanisms leading to primary amenorrhea in balanced X-autosome translocations. *Fertil Steril.* 2015 May;103(5):1289-96.e2.

Carvalho et al. microRNA-106b-mediated down-regulation of C1orf24 expression induces apoptosis and suppresses invasion of thyroid cancer. *Oncotarget.* 2015 Sep 29;6(29):28357-70.

Books and chapters

2013

• Fernanda Tereza de Lima. Genetic counseling in hereditary predisposition syndromes to cancer.

• Ileana de Rubio. Fetal goiter in dysomongenesis: molecular etiology and clinical aspects.

• Estela Sasso Cerri. Cartilage (chapter) – Histology fundamentals for health students.

• Gianna Carvalhira. Chromosome studies: karyotype and advanced techniques.

• Feel Belangero. FISH and diagnostic applications

• Manoel de Jesus Simões. Fundamentals of histology for health students.

• Decio Brunoni. Ambiguous external genitalia and intersex states.

• Luis Gracia Alonso. Craniofacial genetics: dysmorphological aspects.

• Pablo Nicola. Medical genetics and its interface with multimedia.

• Decio Brunoni. Guide to medical genetics – series of guides for outpatient and hospital medicine at EPM-Unifesp.

• Janete Cerutti. Methods of analysis of nucleic acids: DNA and RNA.

• Ileana de Rubio. Bloodspot test for all.

• Marilia Smith. Genetic progeroid syndromes.

• Manoel de Jesus Simões. Connective tissue (chapter). Paper: fundamentals of histology for health students.

• Danilo Carreiro de Teves. Epithelial tissue (chapter). Paper: fundamentals of histology for health students.

• Estela Sasso Cerri. Bone tissue (chapter): histology fundamentals for health students.

2014

• Ricardo dos Santos Simões. Descriptive and topographic anatomy of the lower genital tract.

• Fernando Vagner Lobo Ladd. Chapter two – stereological and allometric studies on neurons and axo-dendritic synapses in superior cervical ganglia.

• Spencer Luiz Marques Payao. Alzheimer's disease.

• Ricardo dos Santos Simões. Embryogenesis and development of the female genital system.

• Ana Maria Massad Costa. Embryology of the lower genital tract.

• Sergio Podgaec. Endometriosis – experimental model.

• José Maria Soares Junior. Permanent estrus – experimental model.

• Ricardo dos Santos Simões. Normal cell structure.

• José Maria Soares Junior. Physiology of the lower genital tract.

• Decio Brunoni. Medical Genetics.

• Ana Beatriz Alvarez Perez. Medical genetics, dysmorphology and genetic counseling.

• Vinicius Cestari do Amaral. Induced hyperprolactinemia in animals.

• Gustavo Rubino de Azevedo Focchi. Histology of the lower genital tract.

• Ricardo dos Santos Simões. Gonadotrophic hormones.

• Pablo Nicola. Multimedia in genetics and its interface with the medical clinic.

• Carlos Jared. Apothecaries of nature: considerations on the chemical defense of cutaneous amphibians.

- Luis Gracia Alonso. Rehabilitation.
- Ana Beatriz Alvarez Perez. Malformation syndromes.
- Gianna Carvalheira. Genetic Testing.
- Mônica Lipay. Disorders of sexual differentiation.

2015

- Glaucia Alonso. Strategies for prevention of congenital and acquired deficiencies.
- Ana Beatriz Alvarez Perez. Medical genetics, dysmorphology and genetic counseling.
- Geraldo Medeiros-Neto. Iodine deficiency disorders.
- Ana Beatriz Alvarez Perez. Marfan syndrome.
- Sintia Belangero. Genetic variants in the lesions of the musculoskeletal system in athletes.
- Ricardo Smith. Dr. Claro Homem de Mello? The first psychiatrist in São Paulo.
- Adriana Carbonel. Effects of genistein and daidzein in female reproductive tract.
- Glaucia Alonso. Strategies for prevention of congenital and acquired deficiencies.
- Ricardo Smith. Retinal biochemistry, physiology and cell biology.

Grants

National grants in 2015

Fapesp #2013/04623-2. Ana Beatriz Alvarez Perez
 CNPq #461457/2014-8. Carlos Jared
 CNPq #308178/2014-9. Carlos Jared
 Fapesp #2015/09858-3. Cristiane Damas Gil
 Fapesp #2015/10636-5. Elizabeth Suchi Chen
 Fapesp #14/21383-8. Estela Sasso-Cerri
 Fapesp #2014/24549-4. Ileana Gabriela Sánchez de Rubió
 Fapesp #14/02768-6; Irina Kerkis
 Fapesp #2013/03867-5. Janete Cerutti
 CNPq #: 470441/2013-5. Janete Cerutti
 Fapesp #2014/06570-6. Janete Cerutti
 Fapesp #2013/23417-4. Marcelo Cavenaghi Pereira da Silva
 Fapesp #2014/11572-8. Maria Isabel de Souza Aranha Melaragno
 Fapesp #2012/51150-0. Maria Isabel de Souza Aranha Melaragno
 CNPq #480367/2012-0. Maria Isabel de Souza Aranha Melaragno
 MCTI/CNPq/CT-BIOTEC. Edital 28/2013. Marília

de Arruda Cardoso Smith
 Fapesp #2009/07145-9. Marília de Arruda Cardoso Smith
 Fapesp 2012/22666-8. Paulo Sergio Cerri
 Fapesp 2012/05905-9. Sandra Miraglia
 Fapesp #2014/12559-5. Sintia Iole Nogueira Belangero
 Fapesp #2014/07280-1. Sintia Iole Nogueira Belangero
 PRONEX-Fapesp/CNPq #2011/50740-5. Iole Nogueira Belangero
 RCUK-Fapesp #2014/50830. Iole Nogueira Belangero
 CNPq #457217/2014-6. Iole Nogueira Belangero
 Fapesp #15/12411-0. Sonia Maria Oliani
 Fapesp #13/20378-8. Suzete Maria Cerutti
 Fapesp #2014/19123-8. Taiza Stump
 Fapesp #2015/000412-2. Taiza Stump

PhD Thesis (2015)

Miriam Aparecida dos Santos: Immediate and late effects of soy isoflavones and estradiol on the mammary gland of ovariectomized rats. Supervisor: Manuel de Jesus Simões.

Babylla Geraldine Monteiro. Graft of immature stem cells from human dental pulp for the treatment of limbic stem cell deficiency. Supervisor: Irina Kerkis.

Gisela Rodrigues da Silva Sasso Scarpati. Assessment of the alveolar development in rats: structural biology and immunolocalization of proteins and factors involved in the osteogenesis. Supervisor: Paulo Sergio Cerri.

Marcio Luiz Alves Moura. Effects of low frequency mechanical vibration and intensity associated to estrogen therapy on the bone tissue of female osteopenic mice. Supervisor: Manuel de Jesus Simões.

Rinaldo Florencio da Silva. Influence of estrogen on the regulation of autophagy and apoptosis of osteocytes of ovariectomized rats. Supervisor: Manuel de Jesus Simões.

Mariana Brandão Ferreira. Polymorphisms of NR3C1, CHRM2, TPH1 and MC1R genes and their correlation to ancestral markers and biopsychosocial factors in individuals with temporomandibular disorders. Supervisor: Luis Garcia Alonso.

Camila Cicconi Paccola. Effect of nicotine on the seminiferous epithelium of exposed rats during the intrauterine phase and lactation. Supervisor: Sandra Maria Miraglia Valdeolivas.

Thiago Cesar Prata Ramos. Histone H4 acetylation study in *Trypanosoma cruzi*. Sergio Schenkman.

Roberta dos Santos Guilherme. Investigation of mechanisms involved in the ringing and stabilization of ring chromosomes, supernumerary markers and terminal deletions. Supervisor: Maria Isabel de Souza Aranha Melaragno.

Vanessa Kiyomi Arashiro Ota. Analysis of gene expression and DNA methylation in drug naïve first psychotic episode patients. Supervisor: Sintia Iole Nogueira Belangero.

Thatiana Correa de Melo. Evaluation of the interaction between bovine papillomavirus and its host cell. Supervisor: Irina Kerkis.

Renato Borges Tesser. Epigenetic reprogramming of rat germ cells and their association to the expression of retrotransposons and genome defense genes. Supervisor: Taiza Stumpp Teixeira.

MSc Thesis (2015)

- Claudia Branco Battistella. Biopsychosocial factors of the axis II of the research diagnostic criteria in individuals with temporomandibular and migraine dysfunction. Supervisor: Luis Garcia Alonso.

- Andre da Costa Vaz. Impact of unilateral left varicocele, induced on peripuberty, on the morphology and function of sertoli cells from adult rats and its repercussion on spermatogenesis. Supervisor: Sandra Maria Miraglia Valdeolivas.

- Caio Cesar Navarrete da Fonseca. Effects of 17 beta-estradiol on the uterus of diabetic and ovariectomized rats. Supervisor: Manuel de Jesus Simões.

- Ticiana Volpato Oliveira. Sox2 expression dynamics during the gonocyte-spermatogonia transition in rats: likely relation to the emergence of trunk parsons. Supervisor: Taiza Stumpp Teixeira.

- Joao Antao Fernandes Junior. Association between low and high oncogenic human papillomavirus and cervical intraepithelial lesions. Supervisor: Luis Garcia Alonso.

- Carla Ducatti. Hybrid capture for the detection of human papillomavirus in atypias of indeterminate meaning. Supervisor: Luis Garcia Alonso.

- Ariadne Stavare Leal. Influence of hyperprolactinemia on cell proliferation, apoptosis and collagen in the lacrimal gland of female mice. Supervisor: Manuel de Jesus Simões.

- Leticia Maria Nery Spindola. Analysis of gene expression related to depression in blood of depressed children and adolescents. Supervisor: Sintia Iole Nogueira Belangero.

- Anelisa Gollo Dantas. Cytogenetic study and assessment of gene expression in patients with 22q11.2 deletion. Supervisor: Maria Isabel de Souza Aranha Melaragno.

- Talita Biude Mendes. Effects of resveratrol on the reproductive parameters of adult rats submitted to experimental varicocele induced from peripuberty. Supervisor: Sandra Maria Miraglia Valdeolivas.

- Diana Aparecida Dias Câmara. Investigation of the stem cell expression markers in murine melanoma cell line and its reprogramming in induced pluripotent cells. Supervisor: Irina Kerkis.

- José Paulo de Pizzol Junior. Contribution of matrix metalloproteinase-1 (MMP-1) and lysosomal acid phosphatase (ACP) in the degradation of lamina of the eruptive pathway in rat molars. Supervisor: Supervisor: Paulo Sergio Cerri.

International cooperations

Official Covenant

International Doctorate Program in Molecular Oncology and Endocrinology, Universidade de Naples Federico II, Italy.

Universidad de La Frontera, UFRO, Chile. Programa de Post Grado Maestria.

International Collaborations (Internal Professor, External Professor and International Institution)

Ana Beatriz Nara – L.M. Sobreira, Johns Hopkins University, USA.

Cristiane Damas Gil – Roderick J. Flower and Mauro Perretti, William Harvey Research Institute, London, UK.

Elizabeth Suchi Chen – Gustavo Turecki and Carl Ernst, Department of Genetics Psychiatry, McGill, Montreal, Canada.

Irina Kerkis – John Tilly, Harvard Medical School, USA.

Janete Maria Cerutti – Gregory Riggins and Penn Huang, Neurology and Neurosurgery Department, Johns Hopkins Medical School, USA.

Janete Maria Cerutti – Alfredo Fusco. Universidade de Naples Federico II, Italy.

Janete Maria Cerutti – Nikola Besic, Institute of Oncology, Ljubljana, Slovenia.

Luis G. Alonso – Mingzhao Xing, Neurology and Neurosurgery Department, Johns Hopkins Medical School, USA.

Luis G. Alonso – José Ramón Mérida-Velasco, Departamento de Anatomía y Embriología Humana II da Universidade Complutense de Madri.

Luis G. Alonso – Ophir Klein, University of California San Francisco, USA.

Maria Isabel de Souza Melaragno – Alexandre Reymond, Center for Integrative Genomics, University Of Lausanne, Switzerland.

Maria Isabel de Souza Melaragno – Jeremy Squire and Dra. Maisa Yoshimoto. Ontario Cancer Institute, Princess Margaret Hospital, Canada.

Maria Isabel de Souza Melaragno – Thomas Liehr, do Instituto de Genética Humana da Universidade de Jena, na Alemanha.

Maria Isabel de Souza Melaragno – Laura Conlin, Anne Lawlor Hutchinson and Nancy Spinner, Division of Human Genetics and Molecular Biology, Children's Hospital of Philadelphia, Pennsylvania, USA.

Marília Arruda Cardodo Smith – Gustavo Turrecki, Department of Genetics Psychiatry, McGill, Montreal, Canada.

Marília Arruda Cardodo Smith – J Mill, Kings College, London, UK.

Marília Arruda Cardodo Smith – Guo H, Dr. Uitto J and Dr. Li Q, Thomas Jefferson University, Philadelphia, USA.

Marília Arruda Cardodo Smith – Jeremy Squire and Dra. Maisa Yoshimoto, Ontario Cancer Institute, Princess Margaret Hospital, Canada.

Rejane Reginato – Lilian I. Plotkin Indiana University – USA.

Rejane Reginato – Martine Cohen-Solal, INSERM U606 – Paris – França.

Ricardo Smith – Universidad de Talca, Talca, Chile.

Sérgio Schenkman – Roberto Docampo, University of Georgia Athens, USA.

Sérgio Schenkman – Silvia Moreno, Universidade da Georgia Athens, USA.

Sérgio Schenkman – Maria Teresa Tellez-Inon, INGEBI, Buenos Aires, Argentina.

Sérgio Schenkman – Lucio Holanda Gondim de Freitas Junior, Instituto Pasteur da Coréia do Sul, Seoul.

Silvia Regina Caminada de Toledo – Sharon A. Savage, Division of Cancer Epidemiology and Genetics (DCEG), National Cancer Institute, USA.

Silvia Regina Caminada de Toledo – Sebastian di Cesare, The Henry C Witel's-on Ocular pathology, McGill, Montreal, Quebec, Canada.

Silvia Regina Caminada de Toledo – Miguel

Burnier, Centre Hospitalier Affilié Universitaire de Quebec, Quebec, Canada.

Sintia Iole Belangero – Gerome Breen. Medical Research Council Social Genetic and Developmental Psychiatry Research Centre, Division of Psychological Medicine, Institute of Psychiatry, King's College London, UK.

Sintia Iole Belangero – Hakon Hakonarson. Center for Applied Genomics, Children's Hospital of Philadelphia, USA.

Sonia Maria Oliani – Mauro Perretti, London Centre for Biochemical Pharmacology, William Harvey Research Institute, Barts and The London School of Medicine, Queen Mary University of London, UK.

Sonia Maria Oliani – Karin Vicente Greco, Northwick Park Institute for Medical Research (NPIMR), London, UK.

Taiza Stumpp – Ian Adams and Richard Meehan, Medical Research Council, Human Genetics Unit, Edinburgh, UK.

Taiza Stumpp – Howard Cooke, Human Genetics Unit, University of Edinburgh, UK.

Prizes

Heme and Controls Differentiation and ROS Levels in Trypanosoma Cruzi regulate a Membrane-Bound Eif2 Alpha Kinase Located in Endosomes. Student: Thiago Cesar Prata Ramos. Supervisor: Sergio Schenkman. Plos Pathogens. FI: 8.057.

Microrna-106b-Mediated Down-Regulation Of C1orf24 Expression Induces Apoptosis And Suppresses Invasion Of Thyroid Cancer. Student: Bruno Heidi Nakano Nozima. Supervisor: Janete Maria Cerutti (último Autor). Oncotarget. FI: 6.359.

Depression, Cytokine, And Cytokine By Treatment Interactions Modulate Gene Expression In Antipsychotic Naïve First Episode Psychosis. Students: Cristiano Noto (external collaborator), Vanessa Kiyomi Arashiro Ota, Marcos Leite Santoro, Leticia Maria Nery Spindola. Supervisor: Sintia Iole Nogueira Belangero. International Collaborator: Michael Maes. Molecular Neurobiology. FI: 5.137.

Are We Really At The Dawn Of Understanding Sporadic Pediatric Thyroid Carcinoma? Student: Lais de Sousa Moraes. Supervisor: Janete Maria Cerutti. Endocrine-Related Cancer. FI: 4.805.

Genetic Mechanisms Leading To Primary Amenorrhea in Balanced X-Autosome Translocations. Students: Mariana Moyses Oliveira, Roberta dos

Santos Guilherme, Anelisa Gollo Dantas, Vera de Freitas Ayres Meloni. Supervisors: Ana Beatriz Alvarez Perez, Maria Isabel de Souza.

Patents

#BR1020150185685: “Flavonoid composition and its uses.” Daniela Rodrigues de Oliveira (PhD student) and Suzete Maria Cerutti (supervisor).

Financial support

Fapesp; Capes; CNPq (Brazil); Newton Fund (England); NIH (USA).

Facilities

Our laboratories are equipped with modern and automated apparatus for performing various molecular and genetic techniques, including extraction and quantification of nucleic acids and proteins (QiaCube-Qiagen, Bioanalyzer, NanoDrop), genotyping, mutation and copy number variation detection, gene expression and proteomics analyses, DNA methylation and ChIP-Chromatin Immunoprecipitation studies (next generation sequencer – Ion Torrent PGM; platform microarray – Agilent; real time PCR -Viia7 and 7500 – Applied Biosystems; optical and fluorescence microscopy – Zeiss).

Other information

There are approximately 30 Master students and 50 PhD students registered in our Program at this time, as well as 20 post-doctoral fellows.

Translational Surgery

PhD and MSc Degrees

Home page

<http://ppg.unifesp.br/cirurgiatranslacional>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1444

Coordinator

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Historical background

The Postgraduate Program in Translational Surgery started in 1982 as part of the Postgraduate Program in Orthopedics. The first doctoral degrees were awarded in 1985 to Dr. Lydia Masako Ferreira and Dr. Roberto Rudge Ramos. In 1990 it became an independent Program, known as the Postgraduate Program in Reconstructive Plastic Surgery, which was officially certified in 1992. Since that time the Program has awarded 43 Masters and 13 Doctoral degrees.

Dr. Marino Lazzareschi was the original coordinator of the Orthopedics Postgraduate Program, followed by Dr. José Laredo Filho, Dr. Jorge de Moura Andrews and Dr. Lydia Masako Ferreira, the current coordinator.

The Program has grown and developed over its history. For the past 16 years it has received a score of 6 from Capes, the second highest score possible.

Factors responsible for this achievement include faculty restructuring in 2001 and opening the Program to researchers from various fields. In particular, basic science, such as molecular biology, physics, biophysics, histology, genetics, tumor biology, and tissue engineering, has been incorporated into the Program's research, and many collaborations and joint projects have been developed.

Since the focus of the research projects in our Program is no longer strictly plastic surgery, but rather includes aspects of basic research and clinical application, a proposal was made to change the Program name to better reflect the research being done. In April, 2012 the new name, Postgraduate Program in Translational Surgery, was approved and adopted.

Research focus

1 - Measurement of osteoarticular deformities

1.1- Methods of measurement in dentofacial deformities

1.2- Articular instabilities

2 - Quality of life as a method of evaluation of plastic surgery

2.1- Self-esteem, body image, depression and sexuality

2.2 - Functional capacity, pain and physical activity

2.3 - Cost effectiveness and management in surgery

2.4 - Evidence-based medicine

3 - Ecto and mesodermal tissue regeneration

3.1 - Oxidative stress and experimental models in transplants

3.2 - Measurement of tissue and nerve regeneration

3.3 - Development of minimally invasive techniques

3.4 - Cell culture, cell therapy and stem cells applied to surgery.

Selected publications

Wolfenson M; Hochman B; Ferreira LM. Laser Lipolysis. *Plastic and Reconstructive Surgery* (1963), v. 135, p. 1369-1377, 2015.

Gragnani A; Cezillo MVB; Oliveira AF; Ferreira LM. Neuroleptic malignant syndrome in trauma patient. *Burns* (Oxford), v. 41, p. 1147-1151, 2015.

Di Martino M; Nahas FX; Kimura AK; Sallum N; Ferreira, LM. Natural Evolution of Seroma in Abdominoplasty. *Plastic and Reconstructive Surgery* (1963), v. 135, p. 691e-698e, 2015.

Sayum Filho J; Lenza M; Carvalho RT; Pires OGN; Cohen M; Belloti JC. Interventions for treating fractures of the patella in adults. *Cochrane Database of Systematic Reviews* (Online) v. 2, p. 01, 2015.

Gracitelli GC; Meric G; Briggs DT; Pulido PA; Mccauley JC; Belloti JC; Bugbee WD. Fresh Osteochondral Allografts in the Knee: Comparison of Primary Transplantation Versus Transplantation After Failure of Previous Subchondral Marrow Stimulation. *American Journal of Sports Medicine*, v. 43, p. 885-891, 2015.

Curto D; Tamaoki MJ; Martins DE; Puertas EB; Belloti JC. Surgical approaches for cervical spine facet dislocations in adults. *Cochrane Database of Systematic Reviews* (Online), v. CD008129, p. 01, 2014.

Lenza M; Belloti, JC; Andriolo, RB; Faloppa F. Conservative interventions for treating middle third clavicle fractures in adolescents and adults. *Cochrane Database of Systematic Reviews* (Online), v. 7121, p. 01, 2014.

Felix GAA; de Brito MJA; Nahas FX; Tavares H; Cordás TA; Dini GM; Ferreira LM. Patients with mild to moderate body dysmorphic disorder may benefit from rhinoplasty. *Journal of Plastic, Reconstructive & Aesthetic Surgery*, v. xx, p. 1-9, 2014.

Abramoff MMF; Pereira MD; Seixas MT; Segreto RA; Guilherme A; Ferreira LM. Low-level laser therapy on bone repair of rat tibiae exposed to ionizing radiation. *Photomedicine and Laser Surgery* (Online) v. 32, p. 1-9, 2014.

Rodrigues MA; Tedesco ACB; Nahas FX; Ferreira LM. Journal Impact Factor versus the Evidence Level of Articles Published in Plastic Surgery Journals. *Plastic and Reconstructive Surgery* (1963), v. 133, p. 1502-1507, 2014.

Montano-Pedroso JC; Garcia EB; Omonte IRV; Rocha MGC; Ferreira LM. Hematological Variables and Iron Status in Abdominoplasty After Bariatric Surgery. *Obesity Surgery*, v. 23, p. 7-16, 2013.

Pacheco G, Monteiro PA; Haddad A; Sabino Neto M; Lage FC; Ferreira LM. Striae Distensae after Breast Augmentation. *Plastic and Reconstructive Surgery* (1963) v. 131, p. 636-642, 2013.

Lenza M.; Buchbinder R; Johnston R; Belloti JC; Faloppa F. Surgical versus conservative interventions for treating fractures of the middle third of the clavicle. *Cochrane Database of Systematic Reviews* (Online), v. 6, p. CD009363, 2013.

Books and chapters

Ferreira LM; Jaeger MRO. *Técnica Ilustrada em Microcirurgia*. 1. ed. SP: Dilivros, 2015. v. 1. 55p.

Ayala RM; Ferreira LM. *Manejo Integral de Las Quemaduras – 1a Edição*. 11. ed. Bogotá – Colombia: Impresión Médica, 2015. v. 1. 489p.

Ayala RM; Ferreira, LM. *Manejo Integral de Las Quemaduras – 3a Edição*. 3. ed. Bogotá – Colombia: Impresión Médica, 2015. v. 1. 489p.

Blanes L; Ferreira LM. *Prevenção e Tratamento de Úlcera por Pressão*. 1. ed. SP / RJ / MG: Atheneu, 2014. v. 1. 342p.

Ferreira LM. *Atualização Terapêutica de Prado / Ramos / Valle – Diagnóstico e Tratamento*. 25. ed. SP: Editora Artes Médicas Ltda, 2014. v. 1. 1990p.

Jaeger MRO; Ferreira LM. Modelos animais. In: Lydia Masako Ferreira / Marcos Ricardo de Oliveira Jaeger. (Org.). *Técnica Ilustrada em Microcirurgia*. 1ed.SP: Dilivros, 2015, v. 1, p. 7-15.

Jaeger MRO; Weinstock M; Ferreira LM. Sutura nervosa. In: Lydia Masako Ferreira / Marcos Ricardo de Oliveira Jaeger. (Org.). *Técnica Ilustrada em Microcirurgia*. 1ed. SP: Dilivros, 2015, v. 1, p. 17-18.

Jaeger MRO; Amaral Neto N; Ferreira LM. Aspectos clínicos da microcirurgia moderna: Os transplantados de mão. In: Lydia Masako Ferreira / Marcos Ricardo de Oliveira Jaeger (Org.). *Técnica Ilustrada em Microcirurgia*. 1ed. SP: Dilivros, 2015, v. 1, p. 38-39.

Ferreira LM. Qué decir a las jóvenes?. In: Lilia Priscilla Alcocer Cordero (Org.). *El Bisturi de Venus*. 1ed. Santiago do Chile: Santiago do Chile, 2015, v. 1, p. 64-72.

Ayala RM; Ferreira LM. *Reseña Histórica sobre las Quemaduras. Manejo Integral de Las Quemaduras*. 1ed.Bogotá – Colombia: Impresión Médica, 2015, v. 1, p. 3-13.

Suzuki V; Carvalho EF; Fanaro GB; Oliveira CR; Trindade CB; Ferreira LM. *Personal Dieter na Suplementação e Prescrição de Fitoterápicos*. Personal

Dieter da Gestação ao Envelhecimento. 1ed. São Paulo: Atheneu, 2015, v. 1, p. 257-273.

Garcia, Elvio Bueno; Sallum, Natasha; Pieri, B. Z.; Ferreira, L.M. Mastopexia com Implantes Mamários. In: Flávio Mendes / Fausto Viterbo. (Org.). Cirurgia Plástica Pós--Bariátrica. 1ed. SP / RJ: Dilivros, 2015, v. 1, p. 576-582.

Pellegrino, DMS; Chacon, J. M. F.; Blanes, L.; Ferreira, L.M. Úlcera por pressão na criança. In: Leila Blanes; Lydia Masako Ferreira. (Org.). Prevenção e Tratamento de Úlcera por Pressão. 1ed. SP / RJ / MG: Atheneu, 2014, v. 1, p. 33-4

PhD Thesis (2015)

Student, thesis title	Begin	End	Supervisor
Ricardo Manzur Ayala A new stabilizer for orotracheal intubation	08/2014	12/2015	Lydia Masako Ferreira
Pedro Debieux Vargas Silva Bioabsorbable versus metallic interference screws for graft fixation in anterior cruciate ligament reconstruction.	10/2012	12/2015	João Carlos Belloti
Vinicius Ynoe de Moraes Platelet rich therapies for musculoskeletal soft tissue injuries	06/2013	12/2015	João Carlos Belloti
Fabio Teruo Matsunaga Treatment of the humeral shaft fractures – minimally invasive osteosynthesis with bridge plate versus conservative treatment with functional brace. A randomised controlled trial.	07/2013	12/2015	João Carlos Belloti
Jorge Raduan Neto Treatment of reducible unstable fractures of the distal radius – Randomized clinical study comparing the locked volar plate and external fixator methods.	02/2013	12/2015	João Carlos Belloti
Antonio Altenor Bessa de Queiroz Knee focal cartilage lesion: a comparison between the hydrogel implant technique and the osteochondral autologous transplantation. A randomized clinical trial.	07/2013	12/2015	Moisés Cohen
Allan Zimmermann Autologous adipose-derived mesenchymal stem-cells and hydroxyapatite in guided bone regeneration of rabbit calvaria.	07/2013	11/2015	Lydia Masako Ferreira

Student, thesis title	Begin	End	Supervisor
Denise de Almeida Mendes Application time for wound dressing following breast augmentation with silicone implants: randomized controlled trial.	05/2013	11/2015	Daniela F. Veiga
Sarita Mac Cornick Toll-Like receptors gene expression of human keratinocytes cultured of large burn injury.	01/2013	11/2015	Alfredo Gragnani Filho
Mônica Sarto Piccolo Burn specific health scale-brief: Translation into Brazilian Portuguese, cultural adaptation and validation.	01/2013	05/2015	Alfredo Gragnani Filho

MSc Thesis (2015)

Student, thesis title	Begin	End	Supervisor
Vanessa Yuri Suzuki Eating behavior in women submitted to abdominoplasty.	12/2013	12/2015	Lydia Masako Ferreira
Lilia Cristina de Arruda Lymphatic drainage in women undergoing thighs dermolipectomy after bariatric surgery.	11/2013	12/2015	Lydia Masako Ferreira
Ronaldo Alves da Cunha Can Phototherapy or Neuromuscular Electrical Stimulation improve muscle strength and jumping performance in young volleyball athletes? A randomized controlled trial study.	12/2013	11/2015	Moisés Cohen
Fabiana da Silva Augusto Translation, cross-cultural adaptation and validation of the Cardiff Wound Impact Schedule to brazilian portuguese.	12/2013	11/2015	Lydia Masako Ferreira
Tânia Corrêa Miller Effect of omega-3 fatty acid supplementation in skeletal muscle and in the lipid profile in rats submitted to swimming.	12/2013	11/2015	Flávio Faloppa
Mariana Merida Carrillo Negrão Controlled insufflation of carbon dioxide in the viability of random skin flaps of rats.	12/2013	11/2015	Lydia Masako Ferreira
Marco Antonio Mattar Continuous compression model in fibroblast culture derived from human periodontal ligament.	12/2013	11/2015	Lydia Masako Ferreira

Student, thesis title	Begin	End	Supervisor
Luiz José Muaccad Gama Single-layer plication for repair of diastasis recti: The most rapid and efficient technique.	12/2013	11/2015	Fabio Xerfan Nahas
Lilian Baldan Zaccaro Augustinho Breast Evaluation Questionnaire in breast reconstruction through the use of musculocutaneous flaps of latissimi dorsi and rectus abdominis.	12/2013	11/2015	Miguel Sabino Neto
Rani da Cunha Moretti Dexamethazone preoperative medication – the effects into primary culture of human dental pulp cells.	08/2013	11/2015	Silvio Eduardo Duailibi
Verônica Chomiski Bicalho Custodio Keratinocyte growth factor (KGF) on wound healing gene expression in keratinocytes from burned patients.	10/2013	09/2015	Alfredo Gragnani Filho
Luciana Aparecida de Sousa Iwamoto Demineralization/ decellularization for natural teeth scaffold.	06/2013	05/2015	Silvio Eduardo Duailibi
Natália Miki Rosário Translation into Brazilian Portuguese, cultural adaptation and validation of “The European Organization for Research and Treatment of Cancer – Quality of Life Questionnaire – Bone Metastase 22”.	06/2013	05/2015	Miguel Sabino Neto
Adriana Corbolan Andrade Breast-Q® in the assessment of reduction mammaplasty outcomes.	08/2013	05/2015	Daniela Francescato Veiga
Rafael Panisi de Campos Meirelles Experimental model of radiodermatitis in rabbits.	06/2013	03/2015	Lydia Masako Ferreira

International cooperations

Brown University (USA) – Dr. Jeffry Morgan.
University of Washington (USA) – Dr. Loren H. Engrav.
University of South Florida (USA) – Dr. Paul R. Sanberg.
University of Pittsburg (USA) – Dr. W. P. Andrew Lee.
Tufts University (USA) – Dr. Pamela Crotty Yelick.

Prizes

2013 – Prize Richard Caspari – Isakos Congress
/ 2013 – Work: Expression profile of collagen genes

in shoulder instability – Paulo Santoro Belangero / Moises Cohen.

2013 – Honorable Mention Award – Integrator forum of researchers. sexuality in women submitted to increasing mastoplasty – Paulo Afonso M. P. Guimarães / Miguel Sabino Neto.

2013 – Honorable Mention Award – Integrator Forum of Researchers – Sexuality in women submitted to reducing mastoplasty – Vanessa C. Lopes Resende / Miguel Sabino Neto
2013 – César Arita National Award for Scientific Research – In 2013 Latin American Osseointegration Congress – Work: Use of Bio-Oss impregnated with concentrate of bone medula cells in apositional ripes in balcony of rabbits: clinical and histomorphometric study – Lydia Masako Ferreira.

2013 – ADA Award - APCD – 2nd Place – CIOSP
2013 – I APCD Interdisciplinary Congress – Work:
Osthodontic retention on dental and skeletal maxillary transverse stability after surgically assisted rapid maxillary expansion (SARME) using laser scanner – Gabriela Pereira R. Prado / Max Domingues Pereira / João Pedro Rocha Bilo / Fabianne Mg Pimental Furtado / Lydia Masako Ferreira.

2014 – Incentive Award for Research – 34th Paulista Journal Of Plastic Surgery – SBCP – Lydia Masako Ferreira.

2014 – Saul Goldenberg Prize – Young Researcher – Best Poster – XIV International Congress SOBRADPEC / I Translational Surgery Forum – Lectine binding gene expression of manose, myeloperoxidase and chimioquinas 5 in primary cultivated keratinocytes of burned patients – Bruno Rafael Miller; Silvana A.A.C. of Noronha; Samuel M.R. de Noronha, Lydia Masako Ferreira, Alfredo Gagnani Filho.

2014 – Award Saul Goldenberg – Senior Researcher – Best Work Complete Original – Work Presentation Poster – Expression of gene analysis of innate and adaptative immunity of primay epidermal kerainocytes of cultivated human skin of patient with severe burn – XIV International Congress SOBRADPEC / I Forum Search Translational Surgery – Silvana AAC de Noronha; Samuel M.R. de Noronha, Larissa Elias Lanziani, Sarita Mac Cornick, Lydia Masako Ferreira, Alfredo Gagnani Filho.

2014 – Award Saul Goldenberg – Young Researcher – Best Theme Free: Adipocyte tissue stem cells in feasibility of random skin flap backbone in rats – Caio Vinicius Suartz, Silvana de France Gaiba, Lydia Masako Ferreira 2014 – Award 1st Place Expert Evidence in Plastic Surgery – Doctoral Student Mayara Mitzi.

2014 – Award Victor Spina – Work Best Mama – Student of Master Vidal Warrior.

2014 – Award Ivo Pitanguy – Honorable Mention – Prof. Max Domingues Pereira / Mariana Moraes.

2014 – Award Category Basic Sciences – Work Best on 46th Brazilian Congress of Orthopedics and Traumatology and XXVI SICOT (Company International Surgery Orthopedic and Traumatology – A simple method to prevent popliteal artery injuries during transtibial reconstruction of LCP – Franciozi CES, Albertoni LB, Abdalla RJ, Rio de Janeiro.

2014 – Scientific Initiation Award – 3RD Braincoms Medical Congress of Medical Students – Brasil 16-18th October 2014 – Effects of the shochwave therapy on the articular cartilage of rats submitted

to ultraendurance running exercise, Best Oral Presentation – Ewerton Borges de Souza Lima (IC) Flavio Faloppa (Orientador) Rejane Reginato e Carlos Eduardo da Silveira Franciozi (CO Supervisors).

2014 – Best Scientific Work Award – 15th Congress of Knee Surgery – Tomographic assessment of the rotation of components in torah navigated toss prostheses – Shumacher, FC; Debieux, P; Castro, AM; Aihara, AY; Fernandes, ARC; Queiroz, AAB; Franciozi, CES; Luzo, MVM.

2014 – 2nd Place – Free Theme Premium – Poster Category – Influence of operating wound coverage time after increasing mamoplasty in cultural colonization – SBCP – Reginal, MG – Veiga, DF.

2014 – 3rd Place – Free Theme Premium – Poster Category – Capacity for labor and productivity among survivors of cancer mamário – SBCP – Reginal, MG – Veiga, DF.

2014 – 2014 – 1st Place – Free Theme Premium – Poster Category – Breast-Q in the prospective evaluation of results of reducing mamoplasty: preliminary results – SBCP – Reginal, MG – Veiga, DF.

2014 – Award Best Work Presented at the I Brazilian Advanced Wound Congress: Tap water in clean skin injury: influence on microbial colonization, Brazilian Society For Advanced Wound Treatment – SOBRADPEC.

2015 – 2nd Place – Awarding Creativity – 52nd Brazilian Congress of Plastic Surgery – SBCP, Sabino-Neto, M.

2015 – 2nd Place – Best Resident – 52nd Brazilian Congress of Plastic Surgery – SBCP, Santos, MTS. 2015 – 1st Place – Award Best Research Work – 52nd Brazilian Congress of Plastic Surgery – SBCP, Gagnani-Filho, A; Isoldi, FC.

2015 – Award Roberto Correa Chen – 52nd Brazilian Congress of Plastic Surgery – SBCP, Isoldi, FC; Ferreira, LM; Noronha, S; Noronha, SC.

2015 – 1st Place – Best Award Scientific Work – 3rd SBRATE Congress, Astur, DC; Bernardes, A; Castro, S; Arliani, GG; Kaleka, CC; Pochini, AC; Cohen, M.

2015 – 3rd Place – Scientific Labor Award – 3rd SBRATE Congress, Arliani, GG; Astur, DC; Lara, PS; Ejnisman, B; Gonçalves, JPP; Cohen, M.

Patents

1) Improvement introduced in Calcaneus protector. Developers: Prof^a. Leila Blanes and Prof^a. Lydia Masako Ferreira Process number: MU8500119-8

2) Use of stem cells, method of tissue engineering, use of dental tissues and tooth biological substitute. Depositors: Unifesp – Brazil, Forsyth Institute – USA and Massachusetts General Hospital – USA. Developer: Sílvia Eduardo Duailibi Case number: MSK / PCT / BR2005 / 000121

3) Use of stem cells in the biological replacement of mended tissues – new tissue engineering method generates new teeth, bones and cartilage from adult stem cells. Depositors: Discipline of Plastic Surgery of Unifesp Developer: Sílvia Eduardo Duailibi Process Number: PI0402659-4.

4) Dental Cryopreservation Technique – Methodology guarantees the quality of adult stem cells after cryopreservation. Depositors: Discipline of Plastic Surgery – Unifesp Developer: Sílvia Eduardo Duailibi.

5) DAME Equipment – Surgical Dissecting Apparatus – Production Process and Method of Fabric Dissection. Depositors: Discipline of Plastic Surgery – Unifesp Developer: Naif Thadeu Naif de Andrade; Prof. Dra. Lydia Masako Ferreira; Bernardo Sergio Hochman, 2010.

6) Device Valve Mounted in Expansile Encoprostheses Applied in Aortic or Pulmonary Position – Utility Model N. Pi0901411-0 A2. Developer: Domingos M. Breile; G. Agreli; José Honório Palma; Enio Buffolo.

– Located at Rua Borges Lagoa, 806. Coordinator: Max Domingues Pereira

Skin Analysis Laboratory – Located at Rua Botucatu, 591 cj142. Coordinators: Miguel Sabino Neto, Lydia Masako Ferreira.

Burn Treatment Unit – Located on the 14th floor of Hospital São Paulo. Coordinators: Lydia Masako Ferreira, Miguel Sabino Neto, Alfredo Gragnani Filho.

Facilities

Microsurgery Laboratory – Located on the 11th floor/right wing of Research Building I, Rua Pedro de Toledo, 781. Coordinator: An Wan Ching.

Cell Culture Laboratory (keratinocytes, fibroblasts) – Located on the 4th floor/left wing of Research Building I, Rua Pedro de Toledo, 781. Coordinators: Alfredo Gragnani Filho, Lydia Masako Ferreira.

Cell Culture Laboratory (adipocytes) – Located on the 11th floor/right wing of the Research Building I, Rua Pedro de Toledo, 781. Coordinators: Lydia Masako Ferreira, Antonio Aloise.

Experimental Surgery And Vivarium – Located at Rua Borges Lagoa, 806. Coordinators: Lydia Masako Ferreira, Miguel Sabino Neto, Bernardo Hochman.

Tissue Engineering and Biomanufacturing Laboratory – Located at the Center for Cellular and Molecular Therapy, Unifesp, Rua Mirassol, 207. Coordinators: Sílvia Eduardo Duailibi and Monica Talarico Duailibi.

Skull and Maxillofacial Measurement Laboratory

Nutrition

PhD and MSc Degrees

Home page

<http://www.ppg.unifesp.br/nutricao>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1446

Coordinator

Mauro Batista de Moraes

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Historical background

Nutrition is a science with interfaces with several areas of knowledge, especially those related to the health sciences. For this reason, the Postgraduate Program in Nutrition of the Federal University of São Paulo – Escola Paulista de Medicina, since its creation in 1991, aims at enhancing the multidisciplinary and interdisciplinary character of the area. It is composed by professors from different academic departments, such as Medicine, Pediatrics, Physiology, Nutrition, and Biology. The interdepartmental nature of the Program contributes to its interdisciplinary character and has greatly enriched scientific interactions and stimulated student integration.

Up to December 2014, the course graduated 210 masters and 119 PhDs of different professional backgrounds, such as nutritionists, medical doctors, physical educators, biologists, biomedical scientists, psychologists, nurses, dentists, speech therapists, physical therapists, chemists, statisticians and phar-

macists. Our students come from several Brazilian states and the Program acts to stimulate and support the implementation, by our graduates, of new research centers, in order to diminish the regional disparities in scientific development of the country. In addition, policies have been developed to stimulate national and international cooperation. The Program has also welcomed foreign students from Latin America and Africa and is open to receive students from all countries.

Research focus

Biochemistry and Physiology of nutrition

Studies of the biochemical and physiological repercussions of different diets.

Nutrition in clinical specialties

Nutrition studies in gastroenterology, nephrology, oncology, pediatrics, geriatrics and other specialties, aiming to evaluate the effect of diet or specific nutrients on the genesis and treatment of pathologies, including actions of multiprofessional teams.

Food quality and composition

Nutrients and microbiological analyzes as indicators of food quality, with emphasis in public health.

Health and nutrition in specific population groups

Clinical, dietary, anthropometric, biochemical, socioeconomic and epidemics of specific population groups such as children, adolescents, pregnant women, infants and the elderly.

Selected publications

Barros KV, Carvalho PO, Cassulino AP, Andrade I, West AL, Miles EA, Calder PC, Silveira VL. Fatty acids in plasma, white and red blood cells, and tissues after oral or intravenous administration of fish oil in

- rats. *Clin Nutr*. 2013 Dec;32(6):993-8. doi:10.1016/j.clnu.2013.02.010. PubMed PMID: 23541913.
- Barros KV, Cassulino AP, Schalch L, Della Valle Munhoz E, Manetta JA, Calder PC, Flor Silveira VL. Pharmaconutrition: acute fatty acid modulation of circulating cytokines in elderly patients in the ICU. *JPEN J Parenter Enteral Nutr*. 2014 May;38(4):467-74. doi:10.1177/0148607113480183. PubMed PMID:23471207.
- Ozaki RK, Soares AC, Speridião Pda G, de Moraes MB. Water Load Test in Childhood Functional Abdominal Pain: No Relation to Food Intake and Nutritional Status. *J Pediatr Gastroenterol Nutr*. 2015 Sep;61(3):330-3. doi:10.1097/MPG.0000000000000805. PubMed PMID: 26317680.
- Marciano R, Santamarina AB, de Santana AA, Silva Mde L, Amancio OM, do Nascimento CM, Oyama LM, de Moraes MB. Effects of prebiotic supplementation on the expression of proteins regulating iron absorption in anaemic growing rats. *Br J Nutr*. 2015 Mar 28;113(6):901-8. doi: 10.1017/S0007114514004334. PubMed PMID: 25745840.
- Ribeiro CC, Leite Speridião Pda G, de Moraes MB. Knowledge and practice of physicians and nutritionists regarding the prevention of food allergy. *Clin Nutr*. 2013 Aug;32(4):624-9. doi: 10.1016/j.clnu.2012.10.014. PubMed PMID: 23238238.
- Iuras A, Telles MM, Andrade IS, Santos GM, Oyama LM, Nascimento CM, Silveira VL, Ribeiro EB. L-arginine abolishes the hypothalamic serotonergic activation induced by central interleukin-1 administration to normal rats. *J Neuroinflammation*. 2013 Dec 7;10:147. doi: 10.1186/1742-2094-10-147. PubMed PMID: 24314273; PubMed Central PMCID: PMC3866599.
- Claudio CC, Patin RV, Palchetti CZ, Machado DM, Succi RC, Oliveira FL. Nutritional status and metabolic disorders in HIV-exposed uninfected prepubertal children. *Nutrition*. 2013 Jul-Aug;29(7-8):1020-3. doi: 10.1016/j.nut.2013.01.019. PubMed PMID: 23759262.
- Pimentel GD, Lira FS, Rosa JC, Caris AV, Pinheiro F, Ribeiro EB, Oller do Nascimento CM, Oyama LM. Yerba mate extract (*Ilex paraguariensis*) attenuates both central and peripheral inflammatory effects of diet-induced obesity in rats. *J Nutr Biochem*. 2013 May;24(5):809-18. doi: 10.1016/j.jnutbio.2012.04.016. PubMed PMID: 22841395.
- Caris AV, Lira FS, de Mello MT, Oyama LM, dos Santos RV. Carbohydrate and glutamine supplementation modulates the Th1/Th2 balance after exercise performed at a simulated altitude of 4500 m. *Nutrition*. 2014 Nov-Dec;30(11-12):1331-6. doi:10.1016/j.nut.2014.03.019. PubMed PMID: 25280408.
- Menon VB, Moysés RM, Gomes SA, de Carvalho AB, Jorgetti V, Heilberg IP. Expression of fibroblast growth factor 23, vitamin D receptor, and sclerostin in bone tissue from hypercalciuric stone formers. *Clin J Am Soc Nephrol*. 2014 Jul;9(7):1263-70. doi: 10.2215/CJN.10030913. PubMed PMID: 24763863; PubMed Central PMCID: PMC4078962.
- Okuda MH, Zemdegs JC, de Santana AA, Santamarina AB, Moreno MF, Hachul AC, dos Santos B, do Nascimento CM, Ribeiro EB, Oyama LM. Green tea extract improves high fat diet-induced hypothalamic inflammation, without affecting the serotonergic system. *J Nutr Biochem*. 2014 Oct;25(10):1084-9. doi:10.1016/j.jnutbio.2014.05.012. PubMed PMID: 25086779.
- Baria F, Kamimura MA, Aoike DT, Ammirati A, Rocha ML, de Mello MT, Cuppari L. Randomized controlled trial to evaluate the impact of aerobic exercise on visceral fat in overweight chronic kidney disease patients. *Nephrol Dial Transplant*. 2014 Apr;29(4):857-64. doi: 10.1093/ndt/gft529. PubMed PMID:24449105.
- Santamarina AB, Carvalho-Silva M, Gomes LM, Okuda MH, Santana AA, Streck EL, Seelaender M, do Nascimento CM, Ribeiro EB, Lira FS, Oyama LM. Decaffeinated green tea extract rich in epigallocatechin-3-gallate prevents fatty liver disease by increased activities of mitochondrial respiratory chain complexes in diet-induced obesity mice. *J Nutr Biochem*. 2015 Nov;26(11):1348-56. doi:10.1016/j.jnutbio.2015.07.002. PubMed PMID: 26300331.
- Alves MA, Moraes TB. Public Daycare Noncompliance with Prescribed Lunch Menus and Dietary Guidelines. *J Am Coll Nutr*. 2015;34(4):328-32. doi:10.1080/07315724.2014.943852. PubMed PMID: 25826699.
- Pereira RA, Cordeiro AC, Avesani CM, Carrero JJ, Lindholm B, Amparo FC, Amodeo C, Cuppari L, Kamimura MA. Sarcopenia in chronic kidney disease on conservative therapy: prevalence and association with mortality. *Nephrol Dial Transplant*. 2015 Oct;30(10):1718-25. doi: 10.1093/ndt/gfv133. PubMed PMID: 25999376.
- Masquio DC, de Piano A, Campos RM, Sanches PL, Carnier J, Corgosinho FC, Netto BD, Carvalho-Ferreira JP, Oyama LM, Nascimento CM, de Mello MT, Tufik S, Dâmaso AR. The role of multicomponent therapy in the metabolic syndrome, inflammation

tion and cardiovascular risk in obese adolescents. *Br J Nutr.* 2015 Jun 28;113(12):1920-30. doi: 10.1017/S0007114515001129. PubMed PMID: 25907896.

Books and chapters

Ita P Heilberg and Nestor Schor. *Renal Lithiasis: Investigation and Therapeutics*, 2015.

Karina VB Munhoz et al. Enteral support and n-3 fatty acids in critically ill elderly patients. In: *Diet and Nutrition in Critical Care*, 2015.

Raquel MS Campos et al. Interdisciplinary Approach in Combat of Abdominal Obesity in Adolescents. In: *Abdominal Obesity: Risk Factors, Weight Reduction Methods and Long-Term Health Effects*, 2015.

Mauro B Morais et al. Cow's milk protein allergy. In: *Therapeutic Update: Diagnosis and Treatment*, 2014.

Deborah CL Masquio et al. Dietary therapies on obesity and metabolic syndrome in adolescents: the role of nutrigenetic, nutrigenomic and food compounds. In: *Mediterranean Diet and Dietary Therapies: Food Sources, Role in the Prevention of Cardiovascular Disease and Other Health Benefits*, 2014.

Flavia C Corgosinho et al. Leptin: from energy balance to inflammatory process in obesity. in: *Leptin: biosynthesis, functions and clinical significance*, 2014.

Fernanda LC Oliveira. *Manual of Pediatric Nutritional Therapy*, 2014

Flávia C Corgosinho et al. Obesity, inflammation, and obstructive sleep apnea: exercise as therapy. in: *Modulation of sleep by obesity, diabetes, age , and diet*, 2014.

Maria Arlete S Escrivão et al. Prevention of childhood disease in adults: cardiovascular disease. In *Handbook of Pediatrics*, 2014.

Vera Lucia Flor Silveira et al. Nutrition and inflammation – polynaturated fatty acids, glutamine, curcumine and resveratrol. In: *Physiology of Nutrition in Health and Disease – From Molecular Biology to Treatment*, 2013.

PhD Thesis (2015)

Deborah Cristina Landi Masquio. The effect of interdisciplinary therapy in metabolic syndrome and inflammatory profile in obese adolescents. Supervisor: Ana R. Dâmaso.

Raquel Munhoz da Silveira Campos. Analysis of Density, Mineral Content and Bone Metabolism Biomarkers in Obese Adolescents undergoing long-term Interdisciplinary Weight Loss Therapy. Supervisor: Ana R. Dâmaso.

Maria Elizabeth de Sousa Rodrigues. Effects of high-fat diet and fructose on inflammatory process induced by stress and ovariectomy. Supervisor: Cláudia M.P.O. Nascimento.

Marion Schneider Meireles. Effect of the cholecalciferol supplementation on vitamin D-regulatory proteins in monocytes and inflammatory markers of patients on dialysis. Supervisor: Lilian Cuppari.

Adriana Pereira de Souza. Effects of maternal undernutrition on adipose tissue of rats: proteomic and metabolomic approach. Supervisor: Eliane Beraldi Ribeiro.

Patricia Ferreira do Prado Moreira. The impact of vitamin D supplementation on body composition of active older women with overweight and obesity. Supervisor: Maysa S Cendoroglo.

Flávia Campos Corgosinho. Influence of LEPR polymorphisms (rs2767485) in the response of an interdisciplinary treatment for lifestyle change as well in the hyperleptinemia state. Supervisor: Ana Dâmaso.

Fernanda Veruska Narciso. The relationship among postural control, psychomotor performance and sleepiness of shiftworkers. Supervisor: Marco Túlio de Mello.

Ana Paula Segantine Dornellas. Altered association of behavioral and metabolic parameters by ovariectomy and high-fat feeding. Supervisor: Eliane Beraldi Ribeiro.

Amanda Paula Pedroso. Effects of intrauterine growth restriction on the hypothalamus of the adult rat: a proteomic and metabolomic approach. Supervisor: Eliane Beraldi Ribeiro.

MSc Thesis (2015)

Adriana de Sousa Nagahashi. Assessment of nutritional status, current and previous feeding of preschool children. Supervisor: Fernanda Luísa Cera-gioli Oliveira.

Laila Santos de Andrade. Effect of uremic serum on the barrier function, inflammation and apoptosis in human colonocytes: an in vitro study. Supervisor: Lilian Cuppari.

Belisa Junqueira Souza. Evolution of nutritional status and therapy of patients followed in nutri-

tional support multidisciplinary team. Supervisor: Fernanda Luísa Ceragioli Oliveira.

Dayane Ferreira Rodrigues. The Influence of Phases of Training on Nutrition, Physical and Psychobiological Parameters of the Brazilian Paralympic Athletes. Supervisor: Marco Túlio de Mello.

Fernanda Pinheiro da Silva. Effect of the administration of the pole of *euterpe edulis* Mart on the metabolic consequences related to diet consumption hyperlipidic and hypererocalism in mice. Supervisor: Lila M. Oyama.

Aline Boveto Santamarina. Effect of green tea extract rich in epigallocatechin-3-gallate ingestion on hepatic metabolic regulators of obese mice induced by high fat diet. Supervisor: Lila M. Oyama.

Fernanda Cassullo Amparo. Validation of the malnutrition and inflammation score as a marker of energy-protein malnutrition and predictor of mortality in patients with chronic renal disease in conservative treatment. Supervisor: Maria Ayako Kamimura Kaneko.

Michelle Thiemi Miwa. Small intestinal bacterial overgrowth, overweight and functional constipation among students at a public school in the city of Santos. Supervisor: Mauro Batista de Moraes.

Financial support

Fapesp, CNPq, Capes.

Facilities

Please see at site: <http://ppg.unifesp.br/nutricao>

Evidence-Based Health

PhD and MSc Degrees

Home page

<http://www2.unifesp.br/dmed/medurgencia/>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=1449

Coordinator

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Historical background

The Postgraduate Program in Internal Medicine and Therapeutics was founded in 1996; in 2014 the Program name was changed to Postgraduate Program in Evidence Based Health. The Program aims to promote the application of scientific methods in the clinical area to uncover new knowledge, link academic research with the clinical practice, and increase efficiency by using scientific data to reduce uncertainties. The objectives are production of scientific publications in the clinical area, useful evidence-based syntheses to aid in decision making, development of methodologies for implementation, and understanding of the relationship between science/technology and human health through clinical research of high methodological rigor, with an emphasis on Systematic Reviews and Meta-analyses and Health Technology Assessment.

Research focus

Methodology and development of systematic reviews

Use of review methods including grouping primary studies, extracting the best scientific evidence, and integrating existing information to evaluate issues such as offering subsidies, rational healthcare and consistency of scientific findings across populations.

Methodology for the implementation of evidence-based medicine

Project development and evaluation of clinical research and clinical epidemiology methodology; epidemiological studies, clinical trials, meta-analyses and scientific assessments of therapeutic variations.

Evaluation of diagnostic test accuracy

Technological evaluations of test validity, utility and accuracy to reduce uncertainty and enable options that provide more efficient health systems.

Methodology and implementation of clinical trials

Development and implementation of randomized controlled trials to evaluate the efficacy, effectiveness and safety of therapeutic procedures.

Selected publications

De Castria TB, da Silva EMK, Gois AFT, Riera R. Cisplatin versus carboplatin in combination with third-generation drugs for advanced non-small cell lung cancer. *Cochrane Database of Systematic Reviews* 2013, Issue 8. Art. No.: CD009256. DOI: 10.1002/14651858.CD009256.pub2.

Macedo CR, Macedo EC, Torloni MR, Silva AB, Prado GF. Pharmacotherapy for sleep bruxism. *Cochrane Database Syst Rev.* 2014 Oct 23;(10):CD005578. doi: 10.1002/14651858.CD005578.pub2.

de Lima LG, Saconato H, Atallah AN, da Silva EM. Beta-blockers for preventing stroke recurrence. *Cochrane Database Syst Rev*. 2014 Oct 15;(10):CD007890. doi: 10.1002/14651858.CD007890.pub3.

da Silva EM, Hochman B, Ferreira LM. Perioperative corticosteroids for preventing complications following facial plastic surgery. *Cochrane Database Syst Rev*. 2014 Jun 2;(6):CD009697. doi: 10.1002/14651858.CD009697.pub2.

Santos FN, de Castria TB, Cruz MRS, Riera R. Chemotherapy for advanced non-small cell lung cancer in the elderly population. *Cochrane Database of Systematic Reviews* 2015, Issue 10. Art. No.: CD010463. DOI: 10.1002/14651858.CD010463.pub2.

Books and chapters

Torloni MR, Daher S, Mattar R. Cytokines and cytokine gene polymorphisms in recurrent pregnancy loss. In: Ole B Christiansen. (Org.). *Recurrent Pregnancy Loss*. 1ed. Oxford: Wiley Blackwell, 2014, v. 1, p. 38-45.

Torloni MR. Obesidade Mórbida e Gestação. In: Urbanetz AA; Luz SH. (Org.). *Programa de Atualização em Ginecologia e Obstetrícia (PROAGO) / Organizado pela Federação das Associações de Ginecologia e Obstetrícia*. Ed. Porto Alegre: Artmed/ Panamericana Editora, 2013, v. 9-4, p. 53-76.

Grants

Maria Regina Torloni – Low-dose calcium supplementation for prevention of pre-eclampsia: randomized clinical trial. Fundação de Amparo a Pesquisa do Estado do Amazonas

Edina Mariko Koga da Silva – Edital Nº 57/2013 MCTI/CNPq/MS – SCTIE – DECIT – Rede Brasileira de Avaliação de Tecnologias em Saúde: Pesquisa de Efetividade Comparativa (PEC-REBRATS)

PhD Thesis (2015)

Caroline Sousa Costa. Isotretinoin oral for acne – systematic review. Supervisor: Rachel Riera.

Matheus Oliveira de Almeida. Conservative interventions in the treatment of muscle-tendinous, ligamentous, and bone injuries related to exercise: a systematic review. Supervisor: Maria Stella Peccin.

Cássia Regina Vancini Campanharo. The epidemiology of cardiorespiratory arrest in the emergency department of a university hospital. Supervisor: Álvaro Nagib Atallah.

Valter Silva. Via Google Maps to evaluate the environment related to chronic noncommunicable diseases: analytical and meta-analytic study of validity and reproducibility. Supervisor: Maria Stella Peccin.

Jacqueline Maria Resende Silveira Leite. Assessment of children with sleep apnea questionnaire – Tucasa: translation, cultural adaptation and validation. Supervisor: Luciane Bizarri.

Jade Cury Martins. Topical tacrolimus for moderate to severe atopic dermatitis: systematic review of literature. Supervisor: Edina Mariko Koga da Silva.

Carlos César Lopes de Jesus. Intra-articular ozone versus placebo in the treatment of knee arthritis. Supervisor: Virgínia Fernandes Moça Trevisani.

Andrea Harumi Kayo. Efficacy and safety of aerobic with strength training in improving sleep quality in women with rheumatoid arthritis: a randomized clinical trial. Supervisor: Virgínia Fernandes Moça Trevisani.

Carolina Christianini Mizzacci. Ivabradine as an adjuvant treatment of chronic heart failure: systematic review and meta-analysis. Supervisor: Rachel Riera.

Hélcio de Abreu Dallari Júnior. Evidence-based medicine and the view of Magistrates in Brazil. Supervisor: Álvaro Nagib Atallah.

Maria Eduarda dos Santos Puga. Search strategy and methodological filters for identification of clinical trials in the lilacs database. Supervisor: Álvaro Nagib Atallah.

MSc Thesis (2015)

Bruna Tuma. Dermatoscopy in black skin: a comparative study of acquired melanocytic nevi in patients with V and VI phototypes versus I and II. Supervisor: Sergio Henrique Hirata.

Lílian Karla Cunha Dos Reis. Sleep disorders impact in the quality of life of women with systemic lupus erythematosus. Supervisor: Virgínia Fernandes Moça Trevisani

Thomas Fernando Coelho Pesavento. Supervised and unsupervised models of physical therapy care in patients with total knee arthroplasty: a systematic review. Supervisor: Maria Stella Peccin.

Maiara Martininghi. The nutritional quality of

dietary plans for weight loss published in non-scientific magazines aimed to the female audience. Supervisor: Edina Mariko Koga da Silva.

Luciano Elias Silva. Accuracy of blood pressure measurements at the Hospital São Paulo's emergency care unit compared to the gold standard. Supervisor: Gilmar Fernandes do Prado.

International cooperations

Karla Soares-Weiser MD, MSc, PhD – Deputy Editor-in-Chief, Cochrane and Cochrane Innovations – Cochrane Central Executive.

Julian PT, Higgins BA (Hons), PhD Cochrane Central Executive

Tamara Otze MD PhD – Universidad de la Frontera, Chile.

Financial support

Fapesp, Capes, CNPq.

Facilities

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https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=202560

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Historical background

Previously known as the Postgraduate Program in Epidemiology (established in 1988), the Postgraduate Program in Public Health was approved by Capes in 2005. In addition to Epidemiology, the Program now includes studies in Social Sciences and Humanities in Health, and Policy, Planning and Management in Health.

The main objectives of the Program are to train students to act as teachers or researchers in public health area, to qualify professionals already working in the area and contribute to the formation of new research centers in the public health area.

Research focus

Epidemiology: epidemiology of human aging, life cycle and chronic diseases; indigenous health and ethno pharmacology; epidemiology of drug use; mindfulness and health promotion.

Social Sciences and Humanities in Health: body, health and disease; technology and health; health and religiosity.

Policy, Planning and Management in Health: process and work management and health; publicly funded health care models.

Selected publications

Zila van der Meer Sanchez Dutenhofner et al. Binge drinking among brazilian students: a gradient of association with socioeconomic status in five geo-economic regions. *Drug and alcohol dependence*, 127: 87-93, 2013.

Marcelo Marcos Piva Demarzo et al. Mindfulness-based stress reduction (MBSR) in perceived stress and quality of life: an open, uncontrolled study in a brazilian healthy sample. *Explore (New York, N.Y.)*, 10: 118-120, 2013. Doi 10.1016/j.explore.2013.12.005

Claudia Masur de Araujo Carlini et al. Environmental characteristics associated with alcohol intoxication among patrons in brazilian nightclubs. *Drug and Alcohol Review*, 33: 358-366, 2014.

Lalucha Mazzucchetti et al. Incidence of metabolic syndrome and related diseases in the Khisêdjê indigenous people of the Xingu, Central Brazil, from 1999-2000 TO 2010-2011. *Cadernos de Saúde Pública*, 30: 2357-2367, 2014.

Flavius Augusto Olivetti Albieriet al. De frente com os médicos: uma estratégia comunicativa de gestão para qualificar a regulação do acesso ambulatorial. *Saúde em debate*, 39: 184-195, 2015.

Alex Antonio Florindo et al. Association of knowledge, preventive counseling and personal health behaviors on physical activity and consumption of fruits or vegetables in community health workers. *BMC Public Health (Online)*, 15: 344, 2015.

Pedro Paulo Gomes Pereira. Queer sous les tropiques: quand les théories voyagent. *Genre, sexualité & société*, 14: 1-10, 2015.

Books and chapters

Pereira PPG. *De corpos e travessias: uma antropologia de corpos e afetos*. Editora Brasileira Comercial, 2014. ISBN 9788539106424.

Monteiro SS (Org.); Villela WV (Org.). *Estigma e Saúde*. 1. ed. Rio de Janeiro: Fiocruz, 2013. v. 1. 207p.

Cecilio LCO; Carapinheiro G (Org.); Andreazza R (Org.). *Os mapas do cuidado: o agir leigo na saúde*. 1ed. São Paulo: Hucitec, 2014. v. 1. 198p.

Carlini EA; Noto AR; Sanchez ZM. *VI Levantamento Nacional sobre o consumo de drogas psicotrópicas entre estudantes do ensino fundamental e médio das redes pública e privada de ensino nas 27 capitais brasileiras*. 1. ed. São Paulo: Artprinter, 2011. v. 1. 501p.

Grants

International grants:

- Use of illicit drugs. Brazil-Cuba Agreement. (Financial support: Capes) – Prof. Elisaldo Carlini;

- Urbanidade, trauma na infância e psicopatologia comórbida na adolescência no Brasil e no Chile / Urbanicity, childhood trauma and adolescent comorbid psychopathology in Brazil and Chile – Agência Financiadora: Columbia University's President's Global Innovation Fund, Valor: US\$ 81.168,50 – Profa. Van Der Meer Sanchez;

- The Pathologies of Modernity and the Remedies from Humanities. – Agências Financiadoras: Fapesp e King's College London, UK – Prof. Dante Gallian.

PhD Thesis (2015)

Aline Barreto de Almeida. “Weaving the Everyday Life with Thin Wires: The Construction of the Basic Attention Network in the Health System of João Pessoa / PB”. Supervisor: Geovani Gurgel Aciole da Silva.

Amadeu Antonio Vieira. “Factors associated with the recurrence of tuberculosis and post-treatment death in the city of Carapicuíba.” Supervisor: Solange Andreoni.

Antonio Carlos Rossi. “Reasons and unreason of the heart: visions and meanings about heart transplantation from oral narratives of an interdisciplinary health team”. Supervisor: Dante Marcello Claramonte Gallian.

Cláudia Regina Magnabosco Martins. “The micropolitics of a regional health agency: a cartography of relations”. Supervisor: Luiz Carlos de Oliveira Cecílio.

Denizi de Oliveira Reis. “Neither hero nor villain: elements of medical practice in basic health care.” Supervisor: Luiz Carlos de Oliveira Cecílio.

Jacqueline Izumi Sakamoto. “Laboratory of Humanities as Critical Paidéia: aesthetic path in confrontation with the notion of Perfectibility as humanizing dynamics in Health”. Supervisor: Dante Marcello Claramonte Gallian.

João de Guses Gomes da Silva. “Discourses, knowledge and practices of the Brazilian psychiatric reform and its implications on the mental health of substitute workers”. Supervisor: Geovani Gurgel Aciole da Silva.

Sofia Pereira Madeira. “Sexual and reproductive behavior of indigenous women in Alto Xingu, Mato Grosso, Brazil”. Supervisor: Rebeca de Souza e Silva.

Tassia Ferreira Santos. “Unprovoked and insecure abortion 20 years after ICPD, Cairo, 94: prevalence and sociodemographic characteristics – Favela México 70, São Vicente – São Paulo, Brazil”. Supervisor: Rebeca de Souza e Silva.

MSc Thesis (2015)

Adriana Teixeira Pereira. “Communication Lab: The perception about the relevancy of study of communication for students in 2nd year of Medicine at Unifesp”. Supervisor: Prof. Dr. Dante Marcello Claramonte Gallian.

Bernardo Seixas Pilotto. “Health sector Social Organizations in São Paulo State: external control advancements and limits”. Supervisor: Profa. Dra. Virginia Junqueira.

Bruna Ballarotti. “Family Health Strategy doctors' point of view in São Paulo municipality: management modalities and doctors' daily practice”. Supervisor: Profa. Dra. Virginia Junqueira.

Carlos Adriano Plá Bento. “Chronic illnesses and functional incapacity in the elderly”. Supervisor: Prof. Dr. Luiz Roberto Ramos.

Gabriel Barreto Rossello. “Between Technical and Human: experiences and questions of hospital pharmacists from São Paulo through Oral History narratives of Life.” Supervisor: Prof. Dr. Dante Marcello Claramonte Gallian.

Isabela Pellacani Pereira das Posses. “Adherence to treatment for tuberculosis: An ethnography at

Clemente Ferreira Institute – São Paulo/SP”. Supervisor: Prof. Dr. Pedro Paulo Gomes Pereira.

Lissandra Andion de Oliveira. “Micro regulatory process in a basic health unit and the production of care”. Supervisor: Prof. Dr. Luiz Carlos de Oliveira Cecílio.

Marcelo Batista de Oliveira. “Mindfulness and self-compassion levels correlated with burnout levels among primary healthcare professionals.” Supervisor: Prof. Dr. Marcelo Marcos Piva Demarzo.

Marta Aprikian Pardini. “Analysis of energy/protein value from elderly diet who living in São Paulo – SP and its relation with nutritional status and functional capacity”. Supervisor: Prof. Dr. Luiz Roberto Ramos.

Régis Cícero da Costa. “Public Policy of Harm Reduction: ethnographic study at a third sector institution (TSI) in the city of São Paulo.” Supervisor: Prof. Dr. Pedro Paulo Gomes Pereira.

Sabrina Pessoni Pimenta. “Dietary density energy and its relation with the presence of non-communicable diseases in elderlies”. Supervisor: Prof. Dr. Luiz Roberto Ramos.

Sonia Maria de Melo. “Not always yes, not always no; encounters between workers and users at a basic health unit”. Supervisor: Prof. Dr. Luiz Carlos de Oliveira Cecílio.

Tarcísio de Oliveira Barros Braz. “Space as a fundamental dimension in the production of care”. Supervisor: Prof. Dr. Luiz Carlos de Oliveira Cecílio.

Thiago Rovai da Silva. “The influence of dreams on crack-cocaine abstinence.” Supervisor: Profa. Dra. Solange Aparecida Nappo.

Vinicius Terra Loyola. “Validity evidence of the FFMQ in Primary Health Care professionals and correlations with self-compassion measures”. Supervisor: Prof. Dr. Marcelo Marcos Piva Demarzo.

marzo

Convênio Brasil-Cuba (Capes) – Prof. Elisaldo Carlini

Univeristy of Lisbon – Prof. Luiz Cecílio

Universidad Autonoma de Barcelona – Prof. Francisco Antônio Lacaz

King’s College London (UK) – Prof. Dante Gallian

Cambridge University (UK) – Prof. Dante Gallian
Universidad de Córdoba (Argentina) – Prof. Dante Gallian

Fundação Gulbenkein de Ciência (Portugal) em parceria com a Capes – Profa. Suely G. A. Gimeno

Financial support

Fapesp, CNPq, Capes, Brazilian Ministry of Health.

Other information

The Postgraduate Program in Public Health has awarded more than 180 Master and PhD degrees since its foundation. Currently the Program has approximately 80 Master and PhD students, undergraduates, visiting professors and 10 Post-Doctoral fellows.

International cooperations

Institution – Collaboration with

La Trobe University, Australia –Prof. Pedro Paulo de Oliveira Gomes

Universidad de Zaragoza – Prof. Marcelo Demarzo

Saint Louis University (USA) – Luiz Roberto Ramos

Columbia University (USA) – Profa. Van Der Meer Sanchez

Ghent University (Belgium) – Prof. Marcelo De-

Translational medicine

PhD and MSc Degrees

Home page

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https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=204351

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Historical background

The Postgraduate Program in Translational Medicine was established four and a half years ago. The Program is part of a major restructuring of clinical and biomedical research at the Paulista School of Medicine (EPM) Unifesp. It is a comprehensive, multidisciplinary Program that focuses on translational research and generation of innovation applied to health. It represents a new approach, a departure from the traditional separation of medical specialties, disciplines and departments. The Program was the result of a long progressive discussion process within the Department of Medicine of EPM Unifesp, focusing on the social and intellectual role that those with graduate level scientific training should take in institutional, regional and national arenas. The establishment of multidisciplinary and multi-professional Programs capable of promoting understanding and development of cutting-edge methodologies in the study of biological systems

and pathological processes was agreed on as a fundamental paradigm.

This new Program has allowed an unprecedented level of collaboration within the Institution, involving faculty researchers with extensive experience, including physicians and scientists from different sub-specialties, who bring with them well-defined lines of research and secure funding from national and international agencies. The Program quickly emerged as a unifying center of excellence, and a model of productive and creative reorganization of knowledge within the Unifesp. The restructuring process is still in progress, and will eventually extend to administrative and decision-making bodies.

The main objective of the Postgraduate Program in Translational Medicine is to prepare individuals from various areas related to Health Sciences to pursue original research focused on relevant clinical problems in the Brazilian population who can address biomedical research in a vertical perspective that brings together molecular, cellular, and systemic aspects, and in a horizontal perspective that involves multiple disciplines. The ultimate goal is to integrate findings from basic science and clinical studies to formulate concrete proposals for changes in medical practice to meet the needs of modern Brazilian society.

Research focus

To meet its goals, the Program has developed thematic areas of research that allow translation of basic science and pre-clinical findings to effective application in patients and communities. Research is grouped under the following six areas of concentration:

Molecular and cellular mechanisms of disease

The role of these mechanisms in multi-system organic disorders.

Development of new diagnostic methods, including biomarkers, bio-imaging, and functional methods.

Identification and epidemiological characterization of population-based differences in disease susceptibility.

Analytical chemistry applied to biology and health.

Human and animal physiology and its relationship to sports.

Selected publications

Silva RC, Landgraf MA, Corrêa-Costa M, Semedo P, Cenedeze MA, Pacheco-Silva A, Landgraf RG, Câmara NO. Acute kidney injury reduces phagocytic and microbicidal capacities of alveolar macrophages. *Cell Physiol Biochem*. 2013;31(2-3):179-88. doi: 10.1159/000343359.

Aguiar CF, Naffah-de-Souza C, Castoldi A, Corrêa-Costa M, Braga TT, Naka ÊL, Amano MT, Abate DT, Hiyane MI, Cenedeze MA, Pacheco e Silva Filho A, Câmara NO. Administration of α -galactosylceramide improves adenine-induced renal injury. *Mol Med*. 2015 Jun 18;21:553-62. doi: 10.2119/molmed.2014.00090.

Potasz C, De Varela MJ, De Carvalho LC, Do Prado LF, Do Prado GF. Effect of play activities on hospitalized children's stress: a randomized clinical trial. *Scand J Occup Ther*. 2013 Jan;20(1):71-9. doi: 10.3109/11038128.2012.729087.

Fehlberg LC, Andrade LH, Assis DM, Pereira RH, Gales AC, Marques EA. Performance of Maldi-TOF MS for identification species of burkholderia cepacia complex clinical isolates. *Diagn Microbiol Infect Dis*. 2013 Oct;77(2):126-8. doi: 10.1016/j.diagmicrobio.2013.06.011

Sanabani SS, Pessôa R, Soares de Oliveira AC, Martinez VP, Giret MT, de Menezes Succi RC, Carvalho K, Tomiyama CS, Nixon DF, Sabino EC, Kallas EG. Variability of HIV-1 genomes among children and adolescents from São Paulo, Brazil. *PLoS One*. 2013 May 7;8(5):e62552. Doi 10.1371/journal.pone.0062552.

Pessôa R, Watanabe JT, Calabria P, Felix AC, Loureiro P, Sabino EC, Busch MP, Sanabani SS. Deep sequencing of HIV-1 near full-length proviral genomes identifies high rates of BF1 recombinants including two novel circulating recombinant forms (CRF) 70_BF1 and a disseminating 71_BF1 among blood donors in Pernambuco, Brasil. *PLoS One*. 2014 Nov 17;9(11):e112674. doi: 10.1371/journal.pone.0112674

Fehlberg LC, da Silva Nogueira K, Cayô da Silva

R, Nicoletti AG, Palmeiro JK, Gales AC, Dalla-Costa LM. Detection of PER-2-producing *Enterobacter cloacae* in a brazilian liver transplantation unit. *Antimicrob Agents Chemother*. 2014;58(3):1831-2. doi: 10.1128/AAC.01260-13

Lins LC, França CN, Fonseca FA, Barbosa SP, Matos LN, Aguirre AC, Bianco HT, do Amaral JB, Izar MC. Effects of ezetimibe on endothelial progenitor cells and microparticles in high-risk patients. *Cell Biochem Biophys*. 2014 Sep;70(1):687-96. doi: 10.1007/s12013-014-9973-9.

Fernandes GW, Ueta CB, Fonseca TL, Gouveia CH, Lancellotti CL, Brum PC, Christoffolete MA, Bianco AC, Ribeiro MO. Inactivation of the adrenergic receptor 2 disrupts glucose homeostasis in mice. *J Endocrinol*. 2014 Jun;221(3):381-90. doi: 10.1530/JOE-13-0526.

Pessôa R, Watanabe JT, Nukui Y, Pereira J, Casseb J, de Oliveira AC, Segurado AC, Sanabani SS. Molecular characterization of human t-cell lymphotropic virus type 1 full and partial genomes By illumina massively parallel sequencing technology. *PLoS One*. 2014 Mar 31;9(3):e93374. doi: 10.1371/journal.pone.0093374.

Aguiar CF, Naffah-de-Souza C, Castoldi A, Corrêa-Costa M, Braga TT, Naka ÊL, Amano MT, Abate DT, Hiyane MI, Cenedeze MA, Pacheco e Silva Filho A, Câmara NO. Administration of α -galactosylceramide improves adenineinduced renal injury. *Mol Med*. 2015 Jun 18;21:553-62. doi: 10.2119/molmed.2014.00090.

Bertoncello N, Moreira RP, Arita DY, Aragão DS, Watanabe IK, Dantas PS, Santos R, Mattar-Rosa R, Yokota R, Cunha TS, Casarini DE. Diabetic nephropathy induced by increased ACE gene dosage is associated with high renal levels of angiotensin (1-7) and bradykinin. *J Diabetes Res*. 2015;2015:674047. doi: 10.1155/2015/674047.

Cayô R, Rodrigues-Costa F, Matos AP, Carvalhaes CG, Jové T, Gales AC. Identification of a new integron harboring BLA (IMP-10) in carbapenem-resistant *acinetobacter baumannii* clinical isolates. *Antimicrob Agents Chemother*. 2015;59(6):3687-9. doi: 10.1128/AAC.04991-14.

Silva KA, Dong J, Dong Y, Dong Y, Schor N, Tweardy DJ, Zhang L, Mitch WE. Inhibition of STAT3 suppresses caspase-3 and the ubiquitin-proteasome system leading to preservation of muscle mass in cancer cachexia. *J Biol Chem*. 2015 Apr 24;290(17):11177-87. doi: 10.1074/jbc.M115.641514

De Sandes-Freitas TV, Felipe CR, Campos ÊF, de

Lima MG, Soares MF, de Franco MF, Aguiar WF, Tedesco-Silva H, Medina-Pestana JO. Subclinical lesions and donor-specific antibodies in kidney transplant recipients receiving tacrolimus-based immunosuppressive regimen followed by early conversion to sirolimus. *Transplantation*. 2015 Nov;99(11):2372-81. doi: 10.1097/TP.0000000000000748.

Books and chapters

2013 (32 publications) selected publications:

Cardiology in the emergency room an approach to clinical – Series emergencies in Brazilian clinics – Renato Delascio Lopes.

Thyroid cancer – Rui Monteiro de Barros Maciel.

Pocket First Aid Guide – Gilmar Meadow Fernandes.

Importance of Renin – Angiotensin System in diabetic complications – Maria Teresa Zanella.

Systemic lupus erythematosus – Emilia Inoue Sato.

Mechanisms of Immunological Renal Disease – Alvaro Pacheco e Silva Filho.

Body Peelings – Edileia Bagatin.

Fetal malnutrition and late development in cardiovascular diseases – Maria do Carmo Pinho Franco.

Restless leg syndrome and movement disorders related to sleep – Gilmar Fernandes do Prado.

To Transplante or not – Jose Osmar Medina de Abreu Pestana

2014 (49 publications) selected publications:

Profile analysis of multiple samples – Analay Salles de Azevedo Melo.

The bone cells and their inter-relationship in bone physiology – Marise Lazaretti Castro.

Considerations of acting speech therapy in dysphagia patients with invasive dependent mechanical ventilation – Flavia Ribeiro Machado.

Perioral Dermatitis – Edileia Bagatin.

Optical microscopy and surface thermodynamics of janus emulsions – Gislaine Ricci Leonardi.

Tuberculosis and skin atypical mycobacteriosis – Jane Tomimori

2015 (38 publications) selected publications:

Changes in urinary tract and lithogenesis – Nestor Schor.

Abdominal Aortic Infrarenal Aneurysm – Armando de Carvalho Lobato.

Stone-breaking Tea (*Phyllanthus Niruri*) – Mirian Aparecida Boim.

Cosmetology and entrepreneurship: prospects for the new business creation – Gislaine Ricci Leonardi.

Kidney stone: research and therapeutics – Nestor Schor.

Ankylosing spondylitis – Jamil Natour.

Neurological emergencies – Renato Delascio Lopes.

Grants

Patent Grant Fapesp 02/02921-1. Period 2002-2012 conclusion in 2015 Recipient: Dulce Elena Casarini. (Coordinator, Nephrology, Unifesp) Patent: Angiotensin converting enzyme I – genetic marker of hypertension, methods of quantification – No. INPI 013432- 2015, Brasil – PCT- Internacional Patent– European Community, United States (2012).

Thematic Project Research Grant – Fapesp – Process 2010/51904-9. Period: 2011-2016. Recipient: Dulce Elena Casarini (Coordinator, Nephrology, Unifesp). Members: Mirian A. Boim (Nephrology, Unifesp), Lisete Michelini (USP), Fernanda Klein Marcondes (UNICAMP) and Adriana K Carmona (Biophysics, Unifesp) Colaborators: Tatiana Sousa Cunha, Danielle Yuri Arita, Fernanda Aparecida Ronchi, Maria do Carmo Franco, Maria Claudia Irigoyen (INCOR), Guiomar Novaes, Ronaldo Carvalho Araujo, Regina Affonso (IPEN-USP). Renin angiotensin and kallikrein kinins systems in hypertension, obesity, diabetes, malnutrition and sepsis: molecular mechanisms, cellular and pathophysiological.

Thematic Project Research Grant Fapesp. Process: 2010/52180-4. Period: 01/02/2010 to 31/09/2017. Recipient: Nestor Schor (Coordinator, Nephrology, Unifesp) Collaborators: Mirian Boim, Dulce Elena Casarini. Physiopathology and regeneration of renal lesions.

Regular Research Grant Fapesp 2014/26750-9. Period: 01/07/2015 to 30/06/2017 Recipient: Elisa Higa (Medical Clinical). Study of the inter-relationship between the signaling pathways of Klotho and P2X7 receptor in the progression of nephropathy in diabetic rats.

Young Researcher Grant Fapesp 2010/01404-0. Period: 01/05/2011 to 30/04/2016 Recipient: Richard Gama Landgraf. In vivo and in vitro studies on the participation of leptin in different models of lung inflammation: inflammatory mediators and signaling pathways involved.

Thematic Project Research Grant Fapesp 2012/20401-4. Period: 01/04/2012 to 30/03/2017. Recipient: Reinaldo Salomão (Coordinator), Ana Cristina Gales (Principal Investigator). Sepsis: integrating basic research and clinical research II.

Regular Research Grant Fapesp 2014/50294-3. Period: 01/02/2015 to 31/01/2017

Recipient: Arnaldo Lopes Colombo (Coordinator), Ana Cristina Gales (Principal Investigator). Sepsis: integrating basic research and clinical research II.

Regular Research Grant Fapesp 2014/24294-6. Period: 01/07/2015 to 31/01/2017

Recipient: Bruno Moreira da Silva. Contribution of tonic peripheral chemoreflex in vagal control of the heart at rest and recovery from exercise in patients with chronic heart failure.

Regular Research Grant Fapesp 2012/19051-1. Period: 01/03/2013 to 31/08/2016 Recipient: Flavia Ribeiro Machado. Elevated blood pressure: effect of noradrenaline on the microcirculation of patients with septic shock and known hypertension.

Thematic Project Research Grant Fapesp 2012/51692-7. Period: 01/09/2014 to 31/08/2019 Recipient: Francisco Antonio Helfenstein Fonseca (Coordinator). The role of adaptive immunity in the development of ischemic heart disease after acute myocardial infarction.

Regular Research Grant Fapesp 2015/02129-6. Period: 01/03/2014 to 31/08/2016. Recipient: Jamil Natour. Effectiveness of the orthosis in osteoarthritis of hands.

Regular Research Grant Fapesp 2015/02129-6. Period: 01/03/2015 to 28/02/2017. Recipient: José Roberto de Brito Jardim. Precision and accuracy of flowmeters used in oxygen therapy.

Regular Research Grant Fapesp 2015/13235-1. Period: 01/10/2015 to 30/07/2017. Recipient: Miriam Oliveira Ribeiro. Signs of thyroid hormone in the hippocampus of obese mice.

Regular Research Grant Fapesp 2013/11323-5. Period: 01/03/2015 to 28/02/2017. Recipient: Ricardo Sobhie Diaz. Use of dendritic cell vaccine in combination with elimination strategies for targeting the viral reservoirs sterilizing cure of HIV-1 in chronically infected patients on antiretroviral treatment.

Regular Research Grant Fapesp 2014/06570-6. Period: 01/10/2015 to 30/09/2019 Recipient: Rui Monteiro de Barros Maciel. Complete sequencing of exoma, Paired-end and RNA genome: new insights into the genetic nature of thyroid cancer in adult-

hood and in pediatric patients and applications in clinical practice.

Regular Research Grant Fapesp 2014/26983-3. Period: 01/11/2015 to 31/10/2017 Recipient: Sabri S. Mohammed A. AL- Sanabani. Large-scale sequencing of HIV genomes as free RNA and integrated DNA: comparing the generated subtype mutations related to drug resistance and the use of co-receptors.

PhD Thesis (2015)

Sidneia da Silva Sousa – Phenotypical and functional characterization of monocytes in septic patients. Supervisor: Reinaldo Salomão.

Katya da Silva Patekoski – Prevalence of Gram-negative bacteria resistant to antimicrobials and *Escherichia coli* carrying the virulence genes in the intestinal microbiota of healthy individuals. Supervisor: Antonio Carlos Pignatari.

Marco Alexandre Dias da Rocha – Contribution to the knowledge on acne in adult women through randomized and comparative clinical study, laboratory and quality of life. Supervisor: Ediléia Bagatin.

Roseli Peres Moreira – Influence of the number of ACE gene copies upon components of the Renin-Angiotensin System and cardiac hypertrophy markers in diabetic mice. Supervisor: Tatiana Souza Cunha.

Carolina Chiusoli de Miranda Rocco – Segmental distribution of lean body mass in patients with chronic obstructive pulmonary disease: Supervisor: Jose Roberto Jardim.

Laura de Sena Nogueira Maehara – Pemphigus foliaceus: a comparative analysis of epidemiological, clinical and immunological aspects in two populations, Brazilian and Dutch. Supervisor: Jane Tomimori.

Danielle Ioshimoto Shitara do Nascimento – Retrospective study on the analysis of mutations in melanoma DNA extraction and melanocytic nevus associated. Supervisor: Ediléia Bagatin.

Veronica Marques Vidigal – Study of Genetic Polymorphism of Vitamin D Receptor BsmI, ApaI and CYP27B1 and CYP24A1 genes and their relationship to serum vitamin D levels and susceptibility to colorectal cancer. Supervisor: Nora Forones.

Lilian Saemi Arita – Effects of *Aloe barbadensis* (*Aloe vera*) in human mesangial cells cultured in high glucose concentration: possible regulatory mechanisms on the renin-angiotensin system. Supervisor: Dulce Elena Casarini.

MSc Thesis (2015)

Priscilla Amaral Monteiro – Metabolic profile and body weight gain after renal transplant in patients followed for 12 months in the Kidney and Hypertension Hospital /Unifesp. Supervisor: Alvaro Pacheco Filho.

Rodrigo Vanerson Passos Neves – Resistance training prevents high blood pressure and increases muscle strength in spontaneously hypertensive rats (SHR). Supervisor: Maria do Carmo Pinho.

Ticiana Paes Batista da Silva – Interrelations between hypoglycemia and cardiovascular autonomic dysfunction in Type 1 Diabetes Mellitus. Supervisor: Sergio Atala Dib.

Sabrina Eun Kyung Lee – Muscular adaptations and functional performance in response to eight weeks of resistance training isometric, isotonic and isokinetic with equivalent volumes and intensities. Supervisor: Marília dos Santos Andrad.

Anderson Yassuyuki Nose – Analysis of the expression of apolipoprotein C-III in plasma of renal transplanted patients. Supervisor: Dulce Elena Casarini.

Maria Cibelle Pauli – Iontophoresis effect on permeation and retention of fluoride in enamel with carious lesion. Supervisor: Gislaïne Ricci Leonardi.

Claudia Teresa Carvente – Analysis of fecal calprotectin and lactoferrin biomarkers in patients with chronic pancreatitis of alcoholic etiology: Supervisor: Maria Lúcia Cardoso Gomes Ferraz.

Danielle Zildeana Sousa Furtado – Applied bio-analytical studies will search the metabolites profile in syndrome Cri Du Chat Carriers. Supervisor: Nilson Antonio Assunção.

Karla Carlos – Willis-Ekbom disease or syndrome of agitated lower limbs? Supervisor: Gilmar Meadow Fernandes.

Bianca Lima Vilela – Effects of an educational program and exercise at work in parameters related to the health workers of a chemical plant, a randomized controlled trial. Supervisor: Marília dos Santos Andrade.

Camila de Masi Teixeira – Cognitive-Behavioral Therapy for Insomnia: Systematic Review. Supervisor: Luciane Bizari Coin de Carvalho.

Clemerson Dos Santos Oliveira – Effect of aerobic exercise in the recovery phase of acute kidney injury induced by gentamicin in rats. Supervisor: Elisa Higa.

Rodrigo Pessoa de Farias – Molecular characterization of human T lymphotropic virus cells, com-

plete genome and part through next-generation sequencing by the Illumina platform. Supervisor: Sabri Saeed Mohamed Ahmed Al-Sanabani.

International cooperations

The Program faculty maintain intense and productive collaborations with Brazilian researchers and international researchers from important institutions around the world:

North America

Aaron Diamond AIDS Research Center, New York, USA; Baylor College of Medicine, Houston, Texas, USA; Beth Israel Deaconess Medical Center – Teaching Hospital of Harvard Medical, Boston, MA, USA; Blood Centers of Pacific, San Francisco, CA, USA; Broad Institute, Harvard Medical School, Boston, USA; Center for Adaptation Genetics and Drug Resistance, Tufts Center for the Study of Drug- Development, Tufts University, Medford, MA, USA; Centers for Disease Control and Prevention, Atlanta, Georgia, USA; Centre for Exercise Science and Medicine, University of South Carolina, USA; Departament of Lipids, New England Medical Center, Boston, MA, USA; Departamento de Hipertensão e Aterosclerose da Boston University, USA; Departments of Pediatrics and Medicine, University of California, San Diego, USA; Division of Pediatric Nephrology, Louisiana State University Health Sciences Center, Louisiana, USA; Harvard AIDS Institute, Boston, MA, USA; Immunobiology Research Center, Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA; Irwin Memorial Blood Center, San Francisco, California, USA; Johns Hopkins University School of Medicine, USA; MD Anderson Cancer Center, Houston, Texas, USA; Memorial Sloan-Kettering Cancer Center, New York, NY, USA; National Institute Health – NIH, USA; Oregon Health and Science University, Portland, Oregon, USA; Stanford University, Stanford, California, USA; The Cleveland Clinic Cole Eye Institute, Cleveland, Ohio, USA; The Henry M. Jackson Foundation, Rockville & Walter Reeds Memorial Hospital, MD, USA; Universidade da Califórnia, San Francisco, California, USA; Universidade de Iowa, Iowa, USA; Universidade do Texas, San Antonio, Texas, USA; University of Akron, USA; University of California Berkeley, Berkeley, USA; University of California in San Diego, California, USA; University of Massachusetts Amherst,

Amherst, MA, USA; University of Massachusetts Worcester, Worcester, MA, USA; University of Pennsylvania, Philadelphia, PA, USA; University of Pittsburgh, Pittsburgh, PA, USA; University of Washington, Washington, DC, USA; University of Wisconsin, Madison, USA; Virginia Commonwealth University, Medical College of Virginia, Virginia, USA; Hypertension and Vascular Research Center, Wake Forest Baptist Health, Wake Forest, Winston Salem, USA; University of British Columbia, Vancouver-Canada and University of Calgary, Alberta, Canada.

Europe

University of Bristol, Bristol, Inglaterra; Laboratoire d'Immunologie, Faculté de Médecine de Tours, France; Collège de France, Institut National de La Santé Et de La Recherche Médicale, Paris, France; University of London, London, UK; Universidade de Liverpool, Liverpool, UK; Instituto Gulbenkian de Ciência, Portugal, Universidade do Porto, Portugal; Hospital de Astúrias, Astúrias, Espanha; Institut National de la Santé et Recherche Médicale (INSERM), France; Hospital Le Kremlin Bicêtre, Université Paris XI, France; Instituto Cantonale di Microbiologia, Bellinzona, Switzerland; Centre Médical et Universitaire, Université de Genève, Geneva, Switzerland. Bioinformatics and Molecular Evolution Laboratory of the University of Vigo, Spain; Hospital Universitário San Raffaele de Milão, Italia; Servicio de Citometria y Centro de Investigación del Cáncer, Universidade de Salamanca, Espanha; Instituto Gulbenkian de Ciência, Oeiras, Portugal. Institut Pasteur, Paris, França; University of Glasgow, Glasgow, Scotland, UK; University of Liverpool, Liverpool, UK; Instituto de Morfologia da Universidade Carolinska, Praga, República Tcheca.

Asia and Oceania

Laboratory of Biometry and Bioinformatics, Postgraduate School of Agriculture and Life Sciences, University of Tokyo, Japan; Centre for Reproductive Health, The University of Adelaide, Australia; Karolinska Institutet, Estocolmo, Sweden; The Chinese University of Hong Kong, Hong Kong; National University of Singapore, Malasia.

Latin America

Center of Reproductive Biotechnology, Department of Preclinical Sciences, Faculty of Medicine, Universidad de La Frontera, Temuco, Chile; Center of Reproductive Biotechnology, Universidad de La Frontera, Chile; Departamento de Fisiologia da

Pontificia Universidade Católica do Chile; Infection Control and Hospital Epidemiology Department at Bernal Medical Center, Buenos Aires, Argentina; Educación Médica e Investigaciones, Clínicas “Norberto Quirno”. Instituto Universitario CEMIC. IUC. Buenos Aires, Argentina; Hospital de Clinicas de Montevideo da Universidade da República do Uruguai, Uruguai.

Prizes

Ana Cristina Gales

2014 – Women in Science Prize, Elsevier Award / Capes.

Angelo A. V. Paola

2014 – IX Health Award – Category: Health and Prevention, Editora Abril.

Flavia Ribeiro Machado

2013 – Award Roberto Mario Clausi – best study in category Sepsis [Machado et al. Prevalence and mortality from severe sepsis and septic shock in Brazilian ICUs], Brazilian Intensive Medicine Association – XIX Brazilian Intensive Care Medicine Congress.

2013 – Terzius Award – best study in category Hemodynamics [Marti YN, Leon MB, Azevedo RP, Baffin AT, FR Machado. Evaluation of venous saturation of oxygen as a substitute femoral central venous saturation, Brazilian Association of Intensive Medicine – XVIII Brazilian Congress of Intensive Care Medicine.

José Osmar Medina de Abreu Pestana

2014 – LIDE Award Health 2014, Health Forum and Wellness.

2015 – Best Free Theme Award – Second Place, VI Brazilian Congress of Densitometry Osteoporosis and Osteometabolismo – BRADDOO.

Nestor Schor

2014 – SLANH President's prize – for his valuable contribution to the development of Nephrology in Latin America.

Patents

Dulce Elena Casarini. (Coord, Nephrology, Unifesp/Fapesp) Patent: Angiotensin Converting

Enzyme I – genetic marker of hypertension, quantification methods – INPI No. 013432- 2015 Brazil (2015) – PCT- European-International Community Patent, United States Patent (2012-2014).

Financial support

CNPq, Capes, Fapesp.

Facilities

The Program makes use of multiuser laboratories in the Nephrology, Rheumatology, Endocrinology, Infectious Disease Divisions. Please see the division websites for a complete listing.

Technology and Attention to Health

MSc Degrees

Home page

<http://www.unifesp.br/campus/sao/meparem/>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=204528

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Historical background

Created in 2011, the Professional Master Program in Technology and Attention to Health is associated with medical residency Programs. Its purpose is to bring greater efficiency to the technical and scientific training of residents, developing their skills and critical thinking for applied research. Thus we intend to create culture of continuing education for the solution of local, regional and national problems. The Program is organized into two focus areas, health promotion and health technology, and seeks to improve the training of physicians in medical residency through courses in scientific methodology, bioethics, biostatistics and public health policies with focus on best practices. In its first year 20 medical residency Programs joined the initiative, bringing 70 students, under the guidance of 58 teachers, almost all of whom were permanent faculty. In 2012 there were 46 additional students enrolled, and the

number of accredited supervisors increased to 75. These supervisors are intensely involved in curricular activities specific to the undergraduate medical course of the institution.

Research focus

Family and community medicine

Public health policy

Women's health

Adult and elderly health

Evidence Based Health Practices

Diagnostic and therapeutic technologies

Organ transplantation

Selected publications

Carvalho N; Braga J; Barbieri M et al. Contraceptive practices in women with sickle-cell disease. *Journal of Obstetrics and Gynaecology*. 2017; volume: 37(1) p. 74-77.

Franco MC; Nakao FS; Paul GA et al. Proposta de Modelo de Atendimento da Hemorragia Digestiva Alta para o Hospital Universitário da Unifesp/Epm. *Arquivos de Gastroenterologia*. In: Anais da XII Semana Brasileira do Aparelho Digestivo 2013; volume 50 p. 239

Salvadori PS; Costa DMC; Romano RFT et al. Quando a fase de equilíbrio pode ser suprimida nos exames de tomografia computadorizada de abdome? *Colégio Brasileiro de Radiologia e Diagnóstico por Imagem* 2013; volume: 46(2) p. 65-70.

Costa DMC; Salvadori PS; Monjardim RF et al. When the non-contrast-enhanced phase is unnecessary in abdominal computed tomography scans? A retrospective analysis of 244 cases. *RB. Radiologia Brasileira* 2013; volume: 46, p. 197-202.

Fraga MDB; Lin J; Pinho, RS et al. Fatores desencadeantes de enxaqueca em adolescentes: análise de 100 pacientes. In: XXV Congresso Brasileiro de Neurologia e VII Congresso Brasileiro de Neurolo-

gia Infantil, 2012, Goiânia. Associação Arquivos de Neuro-psiquiatria Dr. Oswaldo Lange e Anais do VII Congresso Brasileiro de Neurologia Infantil, 2012; volume: 70 p. 47-49.

Books and chapters

A consulta em genética, Ana Beatriz Alvarez Perez, 2013.

Doenças malignas da mama, Gil Facina, 2013.

Síndrome das pernas inquietas e transtornos do movimento relacionados com o sono, Gilmar Fernandes do Prado, 2013.

Distúrbios do sono, Gilmar Fernandes Do Prado, 2014.

Síndromes hiperandrogênica e hiperprolactinêmica,IVALDO DA SILVA, 2014.

Recomendações da Sociedade Brasileira de Patologia Clínica/Medicina Laboratorial (SBPC/ML): Coleta e preparo da amostra biológica, Adagmar Andriolo, 2014.

50 Lesões no tênis, Carlos Vicente Andreoli, 2015.

65 Esportes a remo, Carlos Vicente Andreoli, 2015.

Perguntas e respostas em neurologia pediátrica, Marcelo Masruha Rodrigues, 2015.

MSc Thesis (2015)

Denise Lima de Medeiros. Treatment of primary chronic insomnia with the use of biofeedback techniques: Systematic review and meta-analysis. Supervisor: Gilmar Fernandes do Prado.

Natalia Brenneken Duarte. Evaluation of the action of the chemotherapeutic scheme irinotecan and vincristine in the control and refusal of refofathic desmoplastic tumor in patients of the Institute of Pediatric Oncology – Unifesp. Supervisor: Eliana Maria Monteiro Caran.

Bruno Ferreira Funchal. Description of a series of patients with cerebral artery malignant ischemic stroke treated with decompressive craniectomy with a focus on monitoring intracranial pressure. Supervisor: Gisele Sampaio Silva.

Flavia Delgado Martins. Experience in the treatment of low risk medulloblastoma in children and adolescents. Supervisor: Antonio Sergio Petrillian.

Marcos Devanir Silva da Costa. Anatomical variations of the previous clinoid process: Study of 597 computerized skull base tomographies. Supervisor:

Feres Eduardo Aparecido Chaddad Neto.

Aline Arlindo Vieira. Evaluation of the influence of age in parameters of central circulation in sample of the Brazilian population hypertensive. Supervisor: Roberto Dischinger Miranda.

Daniel Almeida Schettini. Evaluation of risk factors for vesical surgery in critical patients. Supervisor: Flavia Ribeiro Machado.

Amanda Carolina Souza de Albuquerque. Perception of formal caregivers on finitude in the Unifesp Household Program. Vanessa Nishiyama – Naira de Fatima Dutra Lemos. Relationship between visual comorbidities, sleep disorders and function in elderly, independent individuals. Supervisor: Maysa Seabra Cendoroglo.

Carla Bezerra Lopes Almeida. Depression-induced depression in elderly: Validation of the psychometric properties of the Brazilian version of the “Geriatric Emotional Assessment of Pain” – “GEAP-b”. Supervisor: Fania Cristina dos Santos.

Fabio Antonio Vieira. The effect of clopidogrel and low molecular weight heparin on the viability of the ischemic ricket skin flap in rats. Supervisor: João Baptista Gomes dos Santos.

Willey Gonçalves Zanovello. Analysis of reoperation in glioblastoma recidivation in a public service in Brazil. Supervisor: Manoel Antonio de Paiva Neto.

Mariana de Carvalho da Silva. Evaluation of the functionality of elderly a month after proximal female fracture and associated variables. Supervisor: Naira de Fatima Dutra Lemos.

Anderson de Aquino Santos. Mechanical evaluation of the tibial fixation of the lateral posterior band in the reconstruction with double band of the anterior cross ligament with and without interference screw. Supervisor: Carlos Eduardo da Silveira Franciozi.

Andre Miotto. Comparison between transepidermal water loss in air-conditioned and non-air-conditioned environments. Supervisor: Altair da Silva Costa Junior.

Fernanda El Ghaz Leme. Study of performance in the test of the watch drawing in old longevos. Supervisor: Maysa Seabra Cendoroglo.

Rebeka Paulo Santos. Incidence of positive antigenemia for cytomegalovirus in patients with autoimmune rheumatic diseases: a retrospective study of three years in hospital environment. Supervisor: Marcelo de Medeiros Pinheiro.

Rodrigo Ambrosio Fock. Autism dysmorphology measure (ADM): training for the identification of dysmorphic characteristics in patients with autism

spectrum disorder for non-geneticist physicians. Supervisor: Ana Beatriz Alvarez Perez.

Felipe Slaviero. Characteristics of surgical patients treated with neuro-epithelial tumors of low level of central nervous system. Ricardo Silva Centeno.

Francisco Bazilio Nogueira Neto. Recent start buzz associated with sudden neurosensorial hearing loss. Supervisor: Juliana Maria Ferraz Sallum.

Julliana Lianzza Fernandes Silva. Individualized evaluation of the items of the abbreviated geriatric depression scale. Supervisor: Anna Maria Zaragoza Gagliardi.

Livia de Almeida Costa. Irritable intestine syndrome and bacterial surgery of slim intestine: evaluation of the exposed hydrogen test for the diarrhea form and evaluation of the test of methan expired in the constipated form. Supervisor: Orlando Ambrogini Junior.

Ariane Bernardes Camilo. Pharmacological therapy for excessive sleepiness and cognition in patients with residual excessive damage, in adequate use of cpap for sleep obstructive apnea syndrome: systematic review and methanalysis. Supervisor: Lucila Bizari Fernandes do Prado.

Vanessa Akemi Moromizato Hashimoto. Evaluation of the association between metabolic syndrome and cognitive compromise in a couple of longevos. Supervisor: Clineu de Mello Almada Filho.

Lais Uyeda Aivazoglou. Topographic evaluation by magnetic resonance of inflammatory changes in sacroiliac joints in spondyloarthritis. Supervisor: Artur da Rocha Correa Fernandes.

Fernanda Barros Bittar. Correlation between data obtained from a solar exposure questionnaire and the series levels of 25-hydroxivitamine D in population of young people and elderly, caucasoides, of the city of São Paulo, during the summer and winter São Paulo 2015. Supervisor: Vera Lucia Szejnfeld.

Mirella Medeiros Monteiro. Study on etiology and the functional status of hepatic cirrose carriers at a reference service in hepatology. Supervisor: Roberto José de Carvalho Filho.

Renan de Almeida Agustinelli. The inspirational phase is necessary in the tomographic evaluation of patients with bone medula post-transplant obliterating bronchiolite. Paulo Henrique Alves Togni Filho – Henrique Manoel Lederman. Characterization of the indirect immunofluorescence test in HEP-2 cells of antinuculus antibodies in non-self-immmediate illnesses. Supervisor: Luiz Eduardo Coelho Andrade.

Artur Yudi Utino. Correlation of residual devia-

tion with aesthetic satisfaction, after non surgical treatment, of the fruits of the diaphragmatic region of the umbilicus. Supervisor: Marcel Jun Sugawara Tamaoki.

Juliana Fernandes Sarmiento. Evaluation of clinical aspects and risk factors associated with pulmonary arterial hypertension in patients with systemic lupus erythematosus. Supervisor: Cristiane Kayser Veiga da Silva.

Aline Teixeira de Landa. Theoretical evaluation of brazilian rheumatologist fitness in interventional rheumatology. Supervisor: Roberto Dischinger Miranda.

Ellen de Souza Siqueira. Incidental irradiation of axillary lymph nodes in adjuvant radiotherapy for breast cancer. Licia Moreira Medeiros – Helena Regina Comodo Segreto. 500 issues of Pediatric Neurology for resident physicians. Supervisor: Luiz Celso Pereira Vilanova.

Guilherme Liausu Cherpak. Evaluation of the sexuality approach in old people with chronic pain. Supervisor: Fania Cristina dos Santos.

Silvia Sands Forster de Lorenzo. Security of thoracic peridural anesthesia in plastic mirror surgery. Supervisor: Lydia Masako Ferreira.

Thiago Goncalves dos Santos Martins. Risk factors for shaving development in critical patients. Thiago Miranda Lopes de Almeida – Elisabeth Maria Resaffa Nogueira Martins. Simple didactic model for the teaching of direct ophthalmoscopy. Supervisor: Ramiro Colleoni Neto.

Marcela Amaral Avelino. Proposal of Systematization of Non-Operative Treatment of Traumatic Spleen Injuries at Unifesp/EPM University Hospital. Jorge Roberto Marcante Carlotto – Ramiro Colleoni Neto. Hereditary hypermanganesemia. Supervisor: Marcelo Masruha Rodrigues.

Juliana Tsuruta. Radiological anatomocirruoral correlation of the pelvic endometriosis sites. Supervisor: Suzan Menasce Goldman.

Lucas Victor Alves. 500 issues of Pediatric Neurology for resident physicians. Supervisor: Luiz Celso Pereira Vilanova.

Luciana Satiro Timbo. Correlation between mammography, score of calcium and coronary disease in asymptomatic women of intermediate risk by the score of framingham. Supervisor: Gilberto Szarf.

Ophthalmology and Visual Sciences

MSc Degrees

Home page

<http://www.ofthalmounifesp.com.br>

Home page Sucupira

https://sucupira.capes.gov.br/sucupira/public/consultas/coleta/programa/viewPrograma.jsf?popup=true&id_programa=205115

Coordinator

José Alvaro Pereira Gomes

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Historical background

The Professional Master Program in Ophthalmology and Visual Sciences was established in 2013. This Program aims to improve professional experience in the areas of ophthalmology and visual sciences, promoting practical qualification based on transfer of technical expertise, instruction in best practices in research, and thorough analysis of relevant scientific literature. As with all Professional Masters programs, this Program promotes: 1) the development of activities and technical-scientific work on issues of public interest; 2) the capability to operate in public and private agencies, companies, cooperatives and NGOs; 3) sensitivity to the economic market and demand for goods and services; 4) the economic and cultural development of the country; 5) compliance with the Brazilian industrial policy; 6) specificity and reproducibility of scientific and technological knowledge; 7) collaboration between universities and industry. The specific goals

of this Program are to train professionals who will be able to develop new approaches to allow and promote inclusion of people with visual disabilities and to develop research and assistive products and services for people with visual impairment. A multidisciplinary approach is necessary to achieve these goals. Therefore supervisors in the Program come from a variety of professional backgrounds, including physical educators, architects, ophthalmic technologists, information technologists, nurses, occupational therapists, orthoptists, biologists and ophthalmologists. Students in the Program come from similarly diverse backgrounds.

Research focus

1) **Telemedicine**, focusing on new technologies in image transmission networks and clinical data, following specialized remote support. Research topics include image capture methods and analysis software, as related to diagnosis and decision support for eye disease.

2) **Cellular Medicine and Molecular Diagnostics**, focusing on development of techniques for the identification and monitoring of eye inflammation and infection etiologic agents. Specific research areas include structural repair and optics of the anterior surface of the eye and attachments globe with tissue bank development, and advanced techniques of laboratory diagnosis in inflammatory and infectious processes of the eyeball.

3) **Clinical Research and Technology Management**, focusing on development of research, products and services for new diagnostic and therapeutic technologies, and management of ophthalmic practice. Specific research topics include clinical research and drug economy applied to new diagnostic methods and treatment for eye diseases, assistive technology, management of ophthalmic practice in Federal Institutions of Higher Education and sports ophthalmology (including adapted sports and rehabilitation of the visually impaired).

Selected publications

Soares AS, Caldara AA, Storti LR, Teixeira LFM, Terzariol JGT, Conte M. Variation of intraocular pressure in resistance exercise Performed in two different positions. *Rev. Bras. Oftalmol.* vol.74 no.3 Rio de Janeiro May / June 2015.

Junqueira DM, Lopes FS, Souza FC, Dorairaj S, Prata TS. Evaluation of the efficacy and safety of a new device for eye drops instillation in patients with glaucoma. *Clin Ophthalmol.* 2015 Feb 23; 9: 36771. 2015.

Cavascan NN, Solomon SR, Sacai PY, Pereira JM, Rock MD, Berezovsky A. Contributing factors to VEP grating acuity deficit and inter-ocular acuity difference in children with cerebral visual impairment. *Doc Ophthalmol.* 2014 Apr; 128 (2): 91-9.

Conte M, Scarpi MJ. A comparison of the intraocular pressure response between two different intensities and volumes of resistance training. *Rev Bras Ophthalmol.* 2014; 73 (1): 23-7.

Franco AMM, Lopes YC, Souza PH, Allemann N. Biometry in the growth of the high myopic eye in childhood. *Arq. Bras. Ophthalmol.* vol. 76 no. 5 São Paulo Sept./Oct. 2013.

Books and chapters

Retinal Pharmacotherapeutics (Developments in Ophthalmology, Vol. 55) 1st Edition, 2015.

ISBN – 978-3318055641.

Eduardo Rodrigues Buchele.

Stem Cells in Ophthalmology, 2015.

ISBN – 9789962678762.

Jose Alvaro Pereira Gomes.

Assistive Technology: An International Approach to the Comprehensive Management, 2015.

ISBN – 9789351294405.

Eliana Chaves Ferretti.

Alagoas Sugar Hospital: Architecture and Health Care – 50 Years of History.

ISBN – 9788571779686.

Marcia Monteiro.

Yanoff and Duker: Ophthalmology, 2013.

ISBN – 9781455739844.

Norma Allemann.

MSc Thesis (2015)

Cintia Sayuri Futino Rodrigues da Cunha – Evaluation of informed consent forms used in clinical trials sponsored by pharmaceutical industry: an adaptation to the Brazilian reality – ethical and social aspects. Supervisor: Cristina Muccioli.

Cristina Akahoshi Birth – Analysis of strategies for recruitment of volunteers for clinical trials patients. Supervisor: Cristina Muccioli.

Daniel Martins Rocha – Clinical causes of negative electroretinogram in university hospital. Supervisor: Adriana Berezovsky.

Paulo Henrique de Souza – Optical and B-mode ultrasound guided biometry in cataract and intra-ocular silicone oil. Supervisor: Norma Allemann.

Peter Alexander von Ferenczy Harbach – Comparison of the preparation and preservation techniques of amniotic membrane used in the treatment of ocular surface pathologies. Supervisor: Luciene de Sousa Barbosa.

Priscila Mariano de Moura – Retinal Ischemia and Thickened choroid in Microalbuminuric Type 1 diabetes Mellitus Patients with Minimal Fundus Changes. Supervisor: Eduardo Rodrigues Buchele.

International cooperations

Han University of Applied Sciences, Netherlands – Dr. Yvonne Herkeens.

Prizes

Buchele Eduardo Rodrigues – Prize Paul Kayser / RRF Global Award – Federal University of São Paulo. “Lutein: A new dye is chromovitrectomy” – Presented at the 30th Pan American Congress of Ophthalmology – August 7, 2013 in Rio de Janeiro, Brazil.

Tiago dos Santos Silver: ARVO – International Travel Grant in 2013 for the work “Use of Optical Coherence Tomography in Clinical Practice: Does it Influence the Decision of Diagnostic Glaucoma Specialists and Non-specialists?”.

Other information

In July 2015, the Program’s management division organized a symposium on “Intrapreneur-

ship”, including presentations from graduate students in the Department of Entrepreneurship, to explore ways to improve support processes in Unifesp environments.

In October 2015 the program’s sports ophthalmology division promoted the event “IV SOE – Ophthalmology Symposium Sports – The Multidisciplinary Eye Health in Sports – 8 years of Action and Research”. Program students, graduates, and faculty participated, as well as professors from Unifesp and other institutions of higher education and interested members of the public.

