



XXXIV FeSBE Annual Meeting
September 9 – 13, 2019
Campos do Jordão - SP

PRELIMINARY PROGRAM

LECTURES

Environmental remediation in uranium mining and naturally occurring radioactive material waste

Chair: Silvia Maria Velasques de Oliveira (SBBN)

Speaker: Horst Monken-Fernandes (International Atomic Energy Agency-IAEA)

Short description: Environmental remediation of radioactive contamination is about achieving appropriate reduction of exposures to ionizing radiation. Ideally, environmental remediation is part of the planning phase of any industrial operation with the potential of to cause environmental contamination. The lessons learned from international experience can help the Brazilian authorities and scientists of more sustainable options in the development of the future uranium production sites.

Hypertensive neuropathy: a new clinical disease?

Chair: Ana Carolina T. Takakura (ICB-USP)

Speaker: Valéria Paula S. Fazan (FMRP-USP)

Short description: Hypertension is a main risk factor for stroke and vascular dementia and may cause important changes to the cerebrovascular tree, turning the brain more susceptible to infarcts, microaneurysms and ischemia. The conference will address alterations on the morphology and morphometric data on sural, phrenic and vagus nerves in hypertension.

Pericytes at the intersection between tissue regeneration and pathology

Chair: Valbert Nascimento Cardoso (UFMG)

Speaker: Alexander Birbrair (UFMG)

Short description: Paper recently published by Alexander Birbrair in *Stem Cells Translational Medicine* showed that the neural stem cell derived from the muscular pericyte and of the skeletal muscle blood vessel cell has natural attraction for substances produced by tumor. This finding may constitute a good strategy for the treatment of glioblastoma.

Melatonin as a Hormone: New Physiological and Clinical Insights

Chair: Fernanda Gaspar do Amaral (UNIFESP)

Speaker: José Cipolla Neto (ICB-USP)

Short description: After 60 years of melatonin isolation it is time to systematize the present knowledge and to discuss and establish guidelines to the use of melatonin. The recent review published by Professor Cipolla Neto in *Endocrine Reviews* brings a major contribution to the understanding of this hormone ways of action and the present lecture aims to discuss the new concepts presented there.

Discussing the Relationship (DR): The bi-directional communication between tumor and stroma

Chair: Patricia Gama (ICB-USP)

Speaker: T. Christina Barja-Fidalgo (UERJ)

Short description: Cancer is a devastating disease with high morbidity and mortality worldwide. The anomalous behavior of stromal cells creates an environment that facilitates tumor growth, metastasis and drug resistance. Therefore, a better understanding of this influence has great impact on clinical therapy. Prof. Barja-Fidalgo has published many articles in prestigious journals and in this conference the current understanding of recent advances on the mechanisms involved in the communication between cancer and stromal cells will be discussed.

Non-coding RNAs: pathophysiological role and clinical application in the cardiovascular system

Chair: Alice Cristina Rodrigues (ICB-USP)

Speaker: Da-Zhi Wang (Harvard Medical School)

Short description: Dr. Wang's laboratory focuses on the molecular mechanisms of cardiac, smooth and skeletal muscle development and diseases. They identified a subset of miRNAs that are specifically expressed in cardiac and skeletal muscles that play a critical role in controlling cardiac and skeletal muscle proliferation and differentiation. Dr. Wang is a highly productive and innovative scientist and have published in *Cell*, *Nature*, *Nature Genetics*, *Nature Medicine*, *PNAS*, *Journal of Clinical Investigation*, *Development*, *Circulation* and *Circulation Research*.

A Chimera Named Pollution

Chair: Patricia Rocco (UFRJ)

Speaker: Walter Araujo Zin (UFRJ)

Short description: Pollution has many faces and needs a multitude of approaches to be minimized. Indoor pollution, particulate matter in general, Diesel engines exhaust products, and plastics in water collections will be the main topics to be discussed by Prof. Zin that have published over 200 papers in the field.

The cholesterol war: fake news vs. scientific based evidences

Chair: Helena Coutinho F. Oliveira (UNICAMP)

Speaker: Eder C. R. Quintão (FMUSP)

Short description: It is quite worrisome the flood of fake news and medical misinformation about the habit of eating cholesterol enriched diets that is spreading around through the virtual media in the last decade. About a hundred years of scientific research on this topic is being ignored simply because unfounded information spread faster than scientific findings through the web lay press. It is time to fight against this

LECTURES

seatback. Dr. Quintão is a renowned biochemist and medical doctor that has dedicated his whole carrier (> 40 years) studying Cholesterol Homeostasis.

The Immune-Pineal Axis - a chronopharmacological approach for integrating the timing in Physiology and Pathology

Chair: André Sampaio Pupo (UNESP)

Speaker: Regina P. Markus (USP)

Short description: This conference will discuss the basics of the Immune-Pineal Axis and how a chronopharmacological approach could improve therapeutic schedules in neurodegenerative diseases and cancer.

Advances and future perspectives for the study of the human pancreas

Chair: Everardo M. Carneiro (UNICAMP)

Speaker: Alejandro Caicedo (University of Miami)

Short description: coming soon

Aerobic exercise training as therapy for skeletal myopathy: relevance to heart failure and cancer

Chair: Ana Paula C. Davel (UNICAMP)

Speaker: Patricia C. Brum (EEFE-USP)

Short description: coming soon

Speaker: Manu Prakash (Stanford University)

Short description: coming soon

SESSIONS

Photobiomodulation and its applications

Chair: Marucia Chacur (ICB-USP)

Application of photobiomodulation in different animal models.

Marucia Chacur (ICB-USP)

Effect of photobiomodulation in different models of orofacial pain

Daniel de Oliveira Martins (ICB-USP)

Is there room for the use of photobiomodulation in the treatment of pain in medicine?

Hazem A. Ashmawi (FMUSP)

Light to treat pain: biophysics of the mechanisms of action and how to perform clinical and experimental procedures

Marcelo Victor P de Sousa (Bright Photomedicine)

Photobiomodulation Therapy as a tool to improve the quality of life in patients in different types of pain

Nathali Cordeiro Pinto (FMUSP)

Why scientists should share their discoveries through different media not only by publishing papers?

Chair: Camilo de Lellis Santos (UNIFESP)

Science and Citizenship

Natália Pasternak (ICB-USP)

Podcasts, a simple way to connect scientists and public

Leandro A. Lobo (UFRJ)

Who's afraid of media exaggeration?

Carlos Orsi (Instituto Questão de Ciência)

Science in the media, science in the classrooms: the fight against misconceptions

Camilo de Lellis Santos (UNIFESP)

Regulation of muscle mass: cellular and molecular aspects

Chair: Claudia Mermelstein (UFRJ)

Calcium and calpain in muscle dystrophy

Claudia Mermelstein (UFRJ)

Role of miR-29 family in skeletal muscle mass control

Anselmo Moriscot (ICB-USP)

Does insulin/IGF-1 signaling mediate the effects of beta2-adrenergic agonists on skeletal muscle remodeling and function?

Dawit A. Gonçalves (EEFFTO-UFGM)

The role of extracellular matrix during myoblast migration

Ingo Riederer (FIOCRUZ)

Inflammation-induced alterations of the neurovascular unit

Chair: Daniel Adesse (Fiocruz)

Microvessel alterations in *Toxoplasma gondii* infected-mice

Daniel Adesse (Fiocruz)

Alcohol exposure during gestation impairs endothelial-astrocyte interactions in the embryonic cerebral cortex

Joice Stipursky (UFRJ)

Zika virus hampers blood vessels development in a murine model of congenital infection

Patrícia Pestana Garcez (UFRJ)

The role of TLR4 in the microvascular cerebral dysfunction in a model of metabolic syndrome

Vanessa Estado (Fiocruz)

New challenges to blindness treatment

Chair: Hilda Petrs-Silva (UFRJ)

Modulation of Endocannabinoid system induce neuroprotection in a murine model of retinitis pigmentosa

Lucianne Frangel Madeira (UFF)

Micro-RNAs and the regulation of stem cells and retinal degeneration

Carolina Beltrame Del Debbio (USP)

Non-viral vectors for retinal degeneration gene therapy

Armando da Silva Cunha Junior (UFMG)

Gene therapy for retinal ganglion cells - is it feasible?

Hilda Petrs-Silva (UFRJ)

Content versus process in modern cell biology teaching

Chair: Manoel Luis Costa (UFRJ)

On the basic concepts in cell biology

Manoel Luis Costa (UFRJ)

On the impact of technology in biology teaching methodologies

Miriam Struchiner (UFRJ)

The impact of recent process in cell biology teaching

Mauricio Roberto Pinto da Luz (Fiocruz)

Survey of major topics in cell biology

Claudia Mermelstein (UFRJ)

SESSIONS

Purinergic Signaling in Development and Disease

Chair: Henning Ulrich (IQ-USP)

Ecto-5-nucleotidase/CD73 contributes to the radiosensitivity of bladder cancer cells
Ana Maria de Oliveira Battastini (UFRGS)
Purinergic signaling in sepsis-induced liver injury
Robson Coutinho-Silva (UFRJ)
Purinergic Signaling in the Developing Retina
Ana Lucia Marques Ventura (UFF)
Therapeutic effects of purinergic receptors in neurodegenerative diseases
Henning Ulrich (IQ-USP)

Influence of microenvironment on tumor development

Chair: João Alfredo de Moraes (UFRJ)
Clues from the tumor-derived extracellular matrix to neighbor cells in the microenvironment
Christina Barja-Fidalgo (UERJ)
Neutrophil extracellular traps (NETs) as mediators of tumor progression
Robson de Queiroz Monteiro (UFRJ)
Adipose tissue derived extracellular vesicles modify tumoral cells behavior
Mariana Renovato Martins (UFF)
Effect of melanoma extracellular vesicles on neutrophil polarization
João Alfredo de Moraes (UFRJ)

Renin, angiotensins, bradykinin, noradrenaline, acetylations and oxidative stress: friends or foes in cardiorenal syndromes? In honor to the memory of Margarida de Mello Aires

Chair: Adalberto Vieyra (UFRJ)
Cardiorenal syndrome: the long road from kidney to heart
Marcela Sorelli Carneiro Ramos (UFABC)
Novel role of bradykinin and B2-receptors: regulation of collecting duct renin
Lucienne da Silva Lara (UFRJ)
The role of oxidative stress in the renal alterations underlying the onset of hypertension programmed by intrauterine undernutrition
Leucio Duarte Vieira (UFPE)
Renin-angiotensin system and acetylations: key elements in the cardiorenal alterations provoked by undernutrition and obesity
Humberto Muzi Filho (UFRJ)

Microenvironment and cell behavior

Chair: Patricia Gama (USP)
Mechanotransduction in tumor cells
Marcelo Lazzaron Lamers (UFRGS)
ADAMTS and tumor environment
Vanessa M Freitas (ICB-USP)
Hyperglycemic environment and cell behavior
Marinilce Fagundes dos Santos (ICB-USP)
Scaffolds and brain injury
Marimelia A Porcionatto (UNIFESP)

Pathogenesis of Chagas Disease

Chair: João Santana da Silva (FMRP-USP)
The Yin-and-Yang of the immune response: keeping the balance to decrease the burden of Chagas heart disease
Walderez O. Dutra (UFMG)
Consequences of controlling inflammation during Trypanosoma cruzi infection
Fabiana Simão Machado (UFMG)
The involvement of lipid kinases in the pathogenesis of Trypanosoma cruzi infection
Maria Claudia Silva (FMRP-USP)
Omics analysis in Chagas disease cardiomyopathy: a mitochondrial disease?
Edecio Cunha Neto (USP)

Immunology in health and disease

Chair: Marcelo T. Bozza (UFRJ)
Regulation of CD8 T cell differentiation and function by Polycomb group (PcG) proteins during acute and chronic infections
Renata Pereira (UFRJ)
Mucosal inflammation: quantitative vs. qualitative aspects of Treg cell imbalance
Fabio Barrozo do Canto (UFF)
Immunological scarring: understanding chronic effects of acute infections
Denise Moraes da Fonseca (USP)
Combining in vivo imaging and high dimensional phenotyping to understand immune and metabolic development during life
Gustavo Batista de Menezes (UFMG)

SESSIONS

Noncoding RNAs in health and disease

Chair: Alice Cristina Rodrigues (ICB-USP)

Modulation of Muscle Development and Disease by Noncoding RNAs

Da-Zhi Wang (Harvard Medical School)

Integration of Transcriptomics and MicroRNA

Analyses in Cancer Cachexia

Robson Francisco Carvalho (UNESP)

MicroRNAs mediate beneficial effects of exercise on the cardiovascular system

Edilamar Menezes de Oliveira (EEFE-USP)

Exosomal microRNAs as mediators of intertissue communication in obesity

Alice Cristina Rodrigues (ICB-USP)

New aspects of endocrine disruptors

Chair: Maria Izabel Chiamolera (UNIFESP)

Experience with the European Commission for Endocrine Disruptors

Maria Tereza Nunes (ICB-USP)

Zebrafish as an alternative method for toxicity assessment of emerging environmental contaminants

Lilian Cristina Pereira (UNESP-Botucatu)

Endocrine disruptors and intrauterine programming of thyroid dysfunctions

Caroline Serrano do Nascimento (Hospital Albert Einstein)

Endocrine disruptors and the brain

Gisele Giannocco (UNIFESP-Diadema)

Pharmacological changes in cell senescence and consequences for the aging process and neurodegenerative diseases

Chair: Tânia Viel (USP)

Mass spectrometric technology to understand molecular mechanisms that underlie aging

Birgit Schilling (Buck Institute for Research on Aging)

Cellular senescence is induced by the environmental neurotoxin paraquat and contributes to neuropathology linked to Parkinson's disease

Julie Kay Andersen (Buck Institute for Research on Aging)

Uncovering genes and small molecules that prolong lifespan through enhanced molecular stability

Gordon Lithgow (Buck Institute for Research on Aging)

Bradykinin treatment increased the longevity of hippocampal organotypic cultures from old mice

Hudson de Sousa Buck (FCMSCSP)

Several aspects of zebrafish as a research model

Chair: Maria Izabel Chiamolera (UNIFESP)

Unraveling microRNAs function in zebrafish: strategies and advances

Danillo Pinhal (UNESP-Botucatu)

The role of anti-Müllerian hormone signaling during sex differentiation and gametogenesis of teleost fish

Rafael Henrique Nóbrega (UNESP-Botucatu)

Feeding, personality and housing as a candidate source for variation in results from different laboratories around the world

Leonardo José Gil Barcellos (UPF)

Sanitary control in zebrafish and its implication in experimental results

Bianca Ventura (FMUSP-SP)

Risks to the environmental and health due to the uranium mining in Brazil

Chair: Silvia Maria Velasques de Oliveira (SBBN)

Nuclear fuel cycle in Brazil

Aquilino Senra (COPPE/UFRJ)

Biological effects of chronic exposures in the neighborhood of nuclear fuel cycle facilities

Dunstana Melo (Melohill Technology)

Immunomodulators and intestinal homeostasis

Chair: Valbert Nascimento Cardoso (UFMG)

Probiotic Bacteriophages- A novel strategy to control infection and inflammation.

Luis Ricardo Goulart (UFU)

Use of lactic acid bacteria genetically modified as immunomodulators to promote intestinal homeostasis

Vasco Ariston Carvalho de Azevedo (UFMG)

Lipids as immunomodulatory agents

Tatiani Uceli Maioli (UFMG)

Transgenics and Biosafety

Chair: Anibal E. Vercesi (UNICAMP)

Impacts of adopting OMGs

Edivaldo Velini (UNESP)

OGMs: a mobile target

Carlos Orsi (Instituto Questão de Ciência)

The risk of miscommunicating risks

Natalia Pasternak (Instituto Questão de Ciência)

History and importance of the Brazilian biosafety law

Walter Colli (IQ-USP)

SESSIONS

Therapies with stem cells and extracellular vesicles in choric neurodegenerative diseases

Chair: Pedro Leme (UFRJ)/ Patricia Rocco (UFRJ)

Therapies with stem cells and extracellular vesicles in respiratory diseases

Patricia Rocco (UFRJ)

Extracellular vesicles therapy in kidney diseases

Danilo Cândido de Almeida (UNIFESP/USP)

Stem cells therapy in pulmonary arterial hypertension – a new perspective

Pedro Leme (UFRJ)

Challenges for cardiac repair and regeneration after myocardial infarction

José E. Krieger (Incor-HC-USP)

SESSIONS WITH ORAL PRESENTATION OF ABSTRACTS

New insights into thyroid hormones and TSH actions

Chair: Rodrigo Soares Fortunato (UFRJ)

Is there a role of TSH on thyroid and breast cancer?

Rodrigo Soares Fortunato (UFRJ)

Autocrine actions of thyroid hormone

Rafael Benjamin Araújo Dias (UNINOVE)

Oral presentation 1: TBD

Oral presentation 2: TBD

Neuroscience of learning and Brazilian education

Chair: Camilo Lellis-Santos (UNIFESP)

Science for education: a window of opportunity for Brazil

Robert Lent (UFRJ)

Universal design for learning: accommodating individual learning differences

Claudia Berlim de Mello (UNIFESP)

Oral presentation 1: TBD

Oral presentation 2: TBD

Mechanotransduction in biological systems

Chair: Ayumi Aurea Miyakawa (InCor-USP)

Mechanotransduction in the cell-matrix interface

Christoph Ballestrem (The University of Manchester)

Crp3 and vascular remodeling by mechanical stress

Ayumi Aurea Miyakawa (InCor-USP)

Oral presentation 1: TBD

Oral presentation 2: TBD

Development, aging and cell functions

Chair: Patricia Gama (ICB-USP)

Development, diet and hepatic functions

Gustavo Menezes (UFMG)

Breastfeeding and the priming of gastric cell functions

Patricia Gama (ICB-USP)

Oral presentation 1: TBD

Oral presentation 2: TBD

Balance control and visual function: basic and applied approaches

Chair: Givago da Silva Souza (UFPA)

The role of the visual information in balance control

Ana Francisca Rozin Kleiner (UFSCar)

Balance control in low-vision patients

Givago da Silva Souza (UFPA)

Oral presentation 1: TBD

Oral presentation 2: TBD

Mechanisms conditioning the beneficial effects of exercise in cardiovascular diseases

Chair: Lisete Compagno Michelini (ICB-USP)

Autonomic dysfunction in heart failure: Effects of exercise

Joseph Francis (Louisiana State University, USA)

Molecular mechanisms in the genesis of

hypertension: Exercise benefits

Gustavo Santos Masson (ICB-USP)

Oral presentation 1: TBD

Oral presentation 2: TBD

New approaches in animal vision research

Chair: Leonardo Dutra Henriques (USP)

Evaluation of New World monkeys color vision with an adaptation of Cambridge Colour Test

Leonardo Dutra Henriques (USP)

Suprathreshold chromatic discrimination in tufted capuchin monkeys (*Sapajus apella*)

Letícia Miquilini de Arruda Farias (UFPA)

Oral presentation 1: TBD

Oral presentation 2: TBD

Use of noise to mask color and luminance contrast

Chair: Eliza M. C. Brito Lacerda (CEUMA University)

Detection of luminance noise: influence of the stimulus parameters

Eliza M. C. Brito Lacerda (CEUMA University)

Color and luminance discrimination masked by luminance noise

Terezinha M. Gonçalves de Loureiro (UFPA)

Oral presentation 1: TBD

Oral presentation 2: TBD

Advances in muscle physiology

Chair: Flavia Bloise (UFRJ)

Skeletal muscle physiology during the nonthyroidal illness syndrome

Flavia Bloise (UFRJ)

Muscle mitochondrial function in a model of dystrophic mice

Claudia Mermelstein (UFRJ)

Oral presentation 1: TBD

Oral presentation 2: TBD

SESSIONS WITH ORAL PRESENTATION OF ABSTRACTS

Advances in metabolic programming-induced obesity and comorbidities

Chair: Everardo Magalhães Carneiro (UNICAMP)

Obesity and its comorbidities

Licio A. Velloso (UNICAMP)

Metabolic programming and obesity

Patrícia Cristina Lisboa (UERJ)

Oral presentation 1: TBD

Oral presentation 2: TBD

Heart failure-induced cardiorenal diseases: potential targets.

Chair: Adriana C. C. Girardi (InCor- HC-FMUSP)

Cardioprotection conferred by antidiabetic drugs in heart failure: a renal proximal tubule perspective.

Adriana C. C. Girardi (InCor-HC-FMUSP)

The potential benefits of exercise training on vascular disorders induced by heart failure

Luciana V. Rossoni (ICB-USP)

Oral presentation 1: TBD

Oral presentation 2: TBD

Mouse transgenesis and CRISPR

TBD

Scientific reproducibility crisis

TBD

COURSES (Classes in English or Portuguese)

Marketing para cientistas: da bancada a concursos

Coordenador: Helder Nakaya (USP-SP)

Aula 1- Mitos e fatos na carreira científica

Helder Nakaya (USP-SP)

Aula 2- Escrita científica e fazendo figuras impactantes

Helder Nakaya (USP-SP)

Aula 3- Desenvolvendo sua carreira científica

Helder Nakaya (USP-SP)

Redação Científica: Artigos, Projetos e Ética

Coordenador: Walter Araujo Zin (UFRJ)

Aula 1- Redação de Artigo Científico

Walter Araujo Zin (UFRJ)

Aula 2- Ética na Redação e Publicação de um Artigo

Walter Araujo Zin (UFRJ)

Aula 3- Elaboração de Projeto de Pesquisa

Dalton Valentim Vassallo (UFES/ EMESCAM)

Imagens de Bases Moleculares

Coordenador: Valbert Nascimento Cardoso (UFMG)

Aula 1- Imagens cintilográficas (SPECT e PET)

Simone Odília Antunes Fernandes (UFMG)

Aula 2- Nanoformulações para diagnóstico por imagens

Valbert Nascimento Cardoso (UFMG)

Aula 3- Nanoformulações para tratamento

Valbert Nascimento Cardoso (UFMG)

Revisiting the Physiology Teaching

Coordenadora: Maria Tereza Nunes (ICB- USP)

Aula 1- "Who am I?" a game-based teaching tool to promote endocrine physiology learning

Maria Tereza Nunes (ICB- USP) e

João Kleber Neves Ramos (ICB- USP)

Aula 2- Dramatization in Physiology teaching: date to do different

Lucila Ludmila Paula Gutierrez (UFCSA)

Aula 3- Using arts to foster the learning of scientific concepts

Camilo Lellis-Santos (UNIFESP, Diadema – SP)

Aspectos fisiológicos e comportamentais nas pesquisas com fêmeas

Coordenadora: Fabiana Cardoso Vilela Giusti (UNIFAL-MG)

Aula 1- Aprendendo a trabalhar com fêmeas

Bruna Kalil (UNIFAL-MG)

Aula 2- Lactação e comportamento materno

Fabiana Cardoso Vilela Giusti (UNIFAL-MG)

Aula 3- O funcionamento do sistema circadiano em fêmeas

Maristela de Oliveira Poletini (UFMG)

Desreguladores endócrinos

Coordenadora: Denise Pires de Carvalho (UFRJ) e Maria Izabel Chiamolera (UNIFESP)

Aula 1- Introdução aos Desreguladores Endócrinos

Andrea Claudia Freitas Ferreira (UFRJ)

Aula 2- Contaminantes Organoestênicos e o Sistema Endócrino e Reprodutor

Jones B. Graceli (UFES)

Aula 3- Plasticantes, Herbicidas e Metais Pesados

Glaecir Roseni Mundstock Dias (UFRJ)

How to make the most of optical microscopy

Coordenador: Manoel Luis Costa (UFRJ)

Aula 1- Identifying the major variables in optical microscopy

Manoel Luis Costa (UFRJ)

Aula 2- Choosing the best procedure for each inquiry in optical microscopy

João Ricardo Lacerda de Menezes (UFRJ)

Aula 3- Demonstration of the possibilities and limitations in optical microscopy and image processing

Manoel Luis Costa (UFRJ)

Avaliação cardiovascular: adequando o método à hipótese

Coordenadora: Luciana V. Rossoni (ICB- USP)

Aula 1- Avaliando a função cardíaca

Dalton Valentim Vassallo (UFES/ EMESCAM)

Aula 2- Avaliando a função vascular

Luciana Venturini Rossoni (ICB- USP)

Aula 3- Avaliando a efetividade dos protocolos de treinamento físico

Patrícia C. Brum (EEFE-USP)

COURSES (Classes in English or Portuguese)

Proteomics for everyone

Coordenador: Giuseppe Palmisano (ICB-USP)

Aula 1- Proteomics tools and applications to biology

Giuseppe Palmisano (ICB-USP)

Aula 2- Mass spectrometry and bioinformatics for protein identification and quantification

Giuseppe Palmisano (ICB-USP)

Aula 3- Identification of protein phosphorylation by proteomics approaches

Giuseppe Palmisano (ICB-USP)

Molecular pathways in cell death subroutines

Coordenadora: Giselle Zenker Justo (UNIFESP)

Aula 1- Overview of cell death: Regulated and accidental cell death; classification of cell death subroutines

Giselle Zenker Justo (UNIFESP)

Aula 2- Molecular pathways of major regulated cell death modalities.

Giselle Zenker Justo (UNIFESP)

Aula 3- Metabolic control of cell death.

Giselle Zenker Justo (UNIFESP)

Advanced tissue-based techniques in drug development, with emphasis on toxicologic pathology and safety pharmacology applications

Coordenador: Gilberto De Nucci (UNICAMP/USP)

Aula 1- Formalin-fixed paraffin-embedded (FFPE) tissue blocks/sections: review of molecular pathology techniques (relevance and limitations)
Frédéric Gervais (Citoxlab, France)

Aula 2- Advanced in situ hybridization techniques: RNAScope

Frédéric Gervais (Citoxlab, France)

Aula 3- Core techniques in the development of therapeutic oligonucleotides

Cécile Sobry (Citoxlab, France)

O Tecido muscular esquelético: da estrutura a aspectos adaptativos

Coordenador: Anselmo Moriscot (ICB- USP)

Aula 1- Aspectos estruturais do músculo estriado esquelético e correlações com função

Anselmo Moriscot (ICB- USP)

Aula 2- Mecanismos celulares e moleculares controladores da massa muscular esquelética

Luiz Carlos Navegantes (FMRP-USP)

Aula 3- Mecanismos celulares e moleculares envolvidos na resposta regenerativa muscular

Anselmo Moriscot (ICB- USP)

Ritmos Biológicos: mais próximo da sua pesquisa que você imagina

Coordenadora: Fernanda G. do Amaral (UFRGS)

Aula 1- Análises Rítmicas na Pesquisa Experimental

Fernanda G. do Amaral (UFRGS)

Aula 2- Análises Rítmicas na Pesquisa Clínica

Maria Paz Hidalgo (UFRGS)

Aula 3- Discussão Guiada de Projetos - Onde Estão os Ritmos e Como Lidar Com Eles?

Maria Paz Hidalgo (UFRGS)

Modelos animais em psicofarmacologia

Coordenador: Mauricio Schuler Nin (UFRGS)

Aula 1- Noções básicas de neuroanatomia, neurofisiologia, etologia e psicofarmacologia
Helena Maria Tannhauser Barros (UFCSA)

Aula 2- Modelos animais em depressão e estresse pós-traumático

Mauricio Schuler Nin (UFRGS)

Aula 3- Modelos animais em ansiedade e dependência química

Helena Maria Tannhauser Barros (UFCSA)

Modelagem animal: o que preciso fazer para ter resultados precisos

Coordenador: Marcel Frajblat (UFRJ)

Aula 1- Ciência e modelagem animal
Marcel Frajblat (UFRJ)

Aula 2- Fatores que afetam os resultados de uma pesquisa

Marcel Frajblat (UFRJ)

Aula 3- Dor e controle da dor em animais de laboratório

Marcel Frajblat (UFRJ)

Canais para íons em membranas celulares

Coordenador: Antônio Carlos Cassola (ICB- USP)

Aula 1- Técnicas para a observação experimental de canais unitários: "Patch Clamp" e Análise de Ruído

Antônio Carlos Cassola (ICB- USP)

Aula 2- Análise estocástica de canais unitários

Antônio Carlos Cassola (ICB- USP)

Aula 3- Topologia de canais para cátions assemelhados aos canais dependentes de voltagem

Antônio Carlos Cassola (ICB- USP)

COURSES (Classes in English or Portuguese)

Bioimpressão 3D na Medicina Regenerativa

Coordenadora: Marimelia Porcionatto (UNIFESP)

Imprimindo tecidos e órgãos: biotintas e células

Marimelia Porcionatto (UNIFESP)

Bioimpressão 3D como ferramenta para
reapitular o desenvolvimento e doenças

Marimelia Porcionatto (UNIFESP)

Desafios e Perspectivas da Bioimpressão 3D

Marimelia Porcionatto (UNIFESP)