SBFTE

58 Anos

1966 - 2024

56th Brazilian Congress of Pharmacology and Experimental Therapeutics

II National Pain Symposium

Program and Abstracts

October 07-10, 2024

Balneário Camboriú/SC

Welcome Letter

Dear Colleagues,

On behalf of the Brazilian Society of Pharmacology and Experimental Therapeutics (SBFTE), the Organizing Committee is delighted to invite you to participate in the 56th Brazilian Congress of Pharmacology and Experimental Therapeutics, in conjunction with the II National Symposium on Pain, poised to drive significant advancements in pain management. This event is scheduled to take place from 7th to 10th October 2024, at *Hotel Sibara SPA & Convenções* in Balneário Camboriú, Santa Catarina, Brazil.

The SBFTE congress stands as Latin America's premier Pharmacology and Therapeutics event, encompassing more than ten diverse research topics and perspectives. We anticipate an enriching experience, bringing together leading pharmacologists and experts from academia, research institutes, and industry, representing the field's rich diversity and inclusion. Distinguished representatives from the Pharmacological Societies of Argentina, the United Kingdom, Chile, and Hungary will be in attendance, sharing cutting-edge research in and beyond traditional pharmacology.

Over three days of engaging scientific discussions and networking opportunities, attendees will have the opportunity to expose their research, and exchange knowledge with peers, students, clinicians, and academics. Our diverse and dynamic program features an array of activities, including the inaugural keynote Rocha & Silva Lecture, seven conferences, ten oral communications by undergraduate students, three roundtable discussions, special themed sessions (young investigator José Ribeiro do Valle award sponsored by Biolab Farmacêutica and the Women in Pharmacology award sponsored by Eurofarma), in addition to science & art workshops, courses and a poster gallery.

Attendees of the Congress will also have opportunities to immerse themselves in the natural beauty and cultural richness of Balneário Camboriú. From walks in parks and mountains to visits to stunning beaches and the Atlantic Forest. You will be able to move around easily and meet with colleagues to enjoy the exciting nightlife and dining options. October is also the perfect time to enjoy the Germanic festive influence with traditional beer and folk dance/music.

We extend our gratitude to our private and governmental funders, CNPq, CAPES, and FAPESC, whose support enables SBFTE to welcome you all.

We are confident that there is something for everyone at the 56th Brazilian Congress of Pharmacology and Experimental Therapeutics, with the II National Symposium on Pain. For the latest updates on the Congress, follow us on social media!

Wellcome to – *Bem-vindo à* – Balneário Camboriú!

Soraia K. P. Costa
President SBFTE

Rosely O. Godinho
Chair of the
Scientific Committee

Aleksander R Zampronio
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Useful Information

Secretariat

Congress Secretariat will be open from 7:30 am to 6:00 pm

E-Posters

- ✓ All E-posters are available at the Totens and will be presented according to the schedule. Check below for schedule.
- ✓ Poster presenters must attend the Session scheduled by the Scientific Committee (**Poster Session 1:** Oct 8th, from 4:00 pm to 5:30 pm. **Poster Session 2**: Oct 9th, from 4:00 pm to 5:30 pm, Poster Session 3: Oct 10th, from 9:00 am to 10:30 am when posters will be viewed by the Poster Evaluators.

Certificates

The Certificates will be available online in the system (https://www.nuieventos.com.br/sbfte/) until 10 days after the end of the Congress. You can download it in PDF in the Certificates area.

Courses

The course certificate will be given for the participants with at least 2 classes attendance.

Badges

The use of badge is mandatory for all activities and circulation areas in the Convention Center.

Abstracts

Abstracts presented at the Poster Sessions will be available at SBFTE website (https://sbfte.org.br/congressos-anteriores).

Keynote Speakers

Susan D. Brain

Professor Brain obtained her BSc and Ph.D. in Pharmacology from the University of London. She began her academic career as a lecturer at King's College in 1989, was promoted to Reader in 1993, and became a Professor of Pharmacology in 1998. Currently, she is the Deputy Head of the School of Cardiovascular and Metabolic Medicine & Sciences and serves as the School Research Lead. She is an Honorary Fellow of the British Pharmacological Society (BPS) and a Fellow of the Royal Society of Biology. Professor Brain has served on various committees, including the Education Committee of the Royal Society of Biology, and was Vice President for Academic Affairs at BPS from 2003 to 2009, where she played a key role in developing the BPS Advanced Diploma in Pharmacology. Additionally, she has contributed to numerous editorial boards, including the British Journal of Pharmacology. Her work has been widely recognized, earning her honours such as the BPS Sandoz Prize, the Women in Inflammation Science Award, the BPS AstraZeneca Prize for Women, and the Ariens Award. Most recently, she chaired the King's Cardiovascular School Equity, Diversity, and Inclusion (EDI) group, which won the BPS Prize for Equity, Diversity, and Inclusion in 2023. Her research focuses on the sensory neuropeptide calcitonin gene-related peptide (CGRP), which she first studied in 1985, discovering its vasodilatory activity. Her investigations into CGRP have since expanded to encompass its role in cardiovascular diseases, as well as in inflammatory pain and itch. She has also explored transient receptor potential (TRP) channels, such as TRPV1 and TRPA1, which are involved in sensory nerve regulation and inflammatory conditions. Professor Brain has participated in grant review bodies for UK Research Councils and international funders. Notably, she served on the UK Research Excellence Framework (REF) panels for Biological Sciences in 2012 and 2021, contributing to the evaluation of research at various UK universities.

Péter Ferdinandy

Prof. Péter Ferdinandy has been recognized as Highly Cited Researcher in 2014, 2017, 2020, 2021, 2022, and 2023. He published more than 350 papers and 6 patent families. His Hirsh index is 79. He received an MD in 1991, a PhD in 1995 at the University of Szeged, Hungary. He had a postdoctoral training at the University of Alberta, Edmonton, Canada from 1997-99. He became a registered clinical pharmacologist in 1999. He received MBA in finance and quality management in 2004 from the Budapest University of Technology and Economics. He founded Pharmahungary Group, a group of R&D companies (www.pharmahungary.com) that have been involved in more than 300 drug and medical device development projects since their foundation in the early 2000s. He was the president of the International Society for Heart Research, European Section, and the chair of the Working Group of Cellular Biology of the Heart of the European Society for Cardiology. Currently he is the vice-rector for science and innovations and the director of the Department of Pharmacology and Pharmacotherapy, Semmelweis University, Budapest (www.semmelweis.hu). He is the president of the Hungarian Society of Experimental and Clinical Pharmacology (www.huphar.org), and serves as Editor in Chief of British Journal of Pharmacology, a leading international journal in the field of pharmacology and toxicology. Péter Ferdinandy, MD, PhD, MBA, FESC, FISHR is listed in the global Highly Cited Researcher 2014 and 2017 databases acknowledging the world's most influential scientists. He counts more than 250 papers and 5 patent families. His work is cited more than 14000 times and his Hirsh index is 63. He received an MD diploma in 1991 and a PhD in 1995 at the University of Szeged, Hungary. He became a registered clinical pharmacologist in 1999. He did his postdoctoral training at the Department of Pharmacology, University of Alberta, Edmonton, Canada. Then he finished an MBA course and gotMBA diploma in finance and quality management in 2004. He founded Pharmahungary Group, a group of R&D companies (www.pharmahungary.com) that have been involved in more than 250 drug/medical device development projects since their foundation in the early 2000s. Currently he is the vice-rector for science and innovations of the Semmelweis University, Budapest, Hungary.

José Ribeiro do Valle Award

José Ribeiro do Valle Award – First Place Winner History

1998: Maria Martha Campos (UFSC; Adviser: João Batista Calixto)
1999: José Eduardo da Silva Santos (UFSC; Adviser: Jamil Assreuy)
2000: Ana Paula V. Dantas (USP-SP; Adviser: Maria Helena Catelli de Carvalho)
2001: Liliam Fernandes (USP-SP; Adviser: Maria Helena Catelli de Carvalho)
2002: Isaias Gleizer (USP-SP; Adviser: Cristoforo Scavone)
2003: Juliano Ferreira (UFSC; Adviser: João Batista Calixto)
2004: João Alfredo de Moraes (UERJ; Adviser: Thereza Christina Barja-Fidalgo)
2005: Tiago Chiavegatti (Unifesp-EPM; Adviser: Rosely O. Godinho)
2006: Ana Letícia G. Cabral Maragno (USP-RP; Adviser: Marcelo Damário Gomes)
2007: Maria Fernanda de Paula Werner (UFSC; Adviser: Giles A. Rae)
2008: Ana Luiza Andrade de Paula Lopes (Unifesp-EPM; Adviser: Rosely O. Godinho)
2009: Silvio Manfredo Vieira (USP-RP; Adviser: Fernando de Q. Cunha)
2010: Vanessa Olzon Zambelli (Instituto Butantan; Adviser: Yara Cury)
2011: Tatiana Paula Teixeira Ferreira (Fiocruz; Adviser: Patrícia Machado Rodrigues e Silva)
2012: Maíra Assunção Bicca (UFSC; Adviser: João Batista Calixto)
2013: Jaqueline Raymondi Silva (USP-RP; Adviser: Fernando de Q. Cunha)
2014: Jhimmy Talbot (USP-RP; Adviser: Fernando de Q. Cunha)
2015: Daniele Maria Ferreira (UFPR; Adviser: Maria Fernanda de Paula Werner)
2016: Gabriela S Kinker (USP, Adviser: Pedro Augusto Carlos Magno Fernandes)
2017: Fernando Olinto Carreño (UFRGS, Adviser: Teresa C. Dalla Costa)
2018: Bruna da Silva Soley (UFPR, Adviser: Daniela de Almeida Cabrini)
2019: Douglas da Silva Prado (USP-RP) Adviser: José Carlos Alves Filho
2021: Rianne Remus Pulcinelli (UFRGS) Adviser: Rosane Gomez
2022 Fabio Bonifacio de Andrade (USP-RP) Adviser: Thiago M. Cunha
2023 Nathália Ferreira de Oliveira (UFRJ) Adviser: Claudia Lucia Martins Silva

José Ribeiro do Valle Award – 2024 Finalists

Guilherme Ruiz Leonardi
BSc in Pharmacy (PUC-Camp) (2016-2019)
PhD in Pharmacology (Unicamp) (2020-2024)
Adviser: Fabíola Taufic Monica Iglesias

Luan Victor Resque Ramos
BSc in Pharmacy (UFPA) (2017-2022)
MsC:in Biological Sciences (Pharmacology) (FMRP-USP) (2022-2024)
PhD in Biological Sciences (Pharmacology) (FMRP-USP)
Adviser: Michele Mazzaron de Castro

Larissa Benvenutti
BSc in Biomedicine (Univali) (2014-2018)
MsC: in Pharmaceutical Sciences (Univali) (2018-2020)
PhD in Pharmaceutical Sciences (Univali)
Adviser: José Roberto Santin

Thainá Omia Bueno Pereira
BSc in Biomedical Sciences (Unesp-Botucatu) (2017-2021)
MsC: Biomolecular and Pharmacological Sciences (Unesp-Botucatu) (2021-2023)
PhD Biomolecular and Pharmacological Sciences
Adviser: Valéria Cristina Sandrim

Barbara Behr Martins
BSc in Biomedicine (USC) (2012-2017)
MsC:in Toxinology (Ibu) 2018-2020
PhD Toxinology
Adviser: Vanessa Olzon Zambelli

Women in Pharmacology in Brazil Award

MULHERES NA FARMACOLOGIA NO BRASIL

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2023 First Women in Pharmacology in Brazil Award
Category Leader: Prof. Dr Regina P. Markus (USP-SP)
Category Emerging Leader: Prof. Dr Regina di Sordi (UFSC)

2024 Second Women in Pharmacology in Brazil Award
Category Leader: Leticia Veras Costa-Lotufo (USP-SP)
Category Emerging Leader: Cristina Aparecida Jark Stern (UFPR)

Grupo Especial de Iniciativas Educacionais - SBFTE (IE/SBFTE)

Coordenadores:

- ✓ Maria Christina W. Avellar (Unifesp-EPM, SP)
- ✓ Paulo César Ghedini (UFG, GO)

Membros:

- ✓ François G. Noël (UFRJ, RJ)
- ✓ Francislaine Aparecida dos Reis Livero (UFPR, PR)
- ✓ Helena Maria Tannhauser Barros (UFCSPA, RS)
- ✓ Daniela Ferreira (Instituto Pesquisa Pequeno Príncipe, PR)
- ✓ Elizabeth Fernandes (Instituto Pesquisa Pequeno Príncipe, PR)
- ✓ Soraia Katia Pereira Costa (USP, SP; Representante da Diretoria SBFTE)
- ✓ Rosane Gomez (UFRGS; Representante do Fórum Permanente de Pós-Graduação em Farmacologia da SBFTE)
- ✓ Weverton Castro (USP, RP; Representante da SBFTE Jovem)

Comissão Julgadora das Obras

- ✓ Helena Maria T. Barros (UFRGS; Coordenadora)
- ✓ Francislaine Aparecida dos Reis Livero (UFPR)
- ✓ Norberto Garcia-Cairasco (USP-RP)

Apresentação

A Sociedade Brasileira de Farmacologia e Terapêutica Experimental (SBFTE), pelo Grupo Especial de Iniciativas Educacionais SBFTE - IE/SBFTE, tem o prazer de apresentar as obras selecionadas para a ***I MOSTRA DE CIÊNCIA & ARTE SBFTE***. Esta iniciativa, inspirada no sucesso desta temática em webinário do grupo especial SIG-Farmacologia e Terapêutica (SIG-FARMACO, Rede Rute/RNP em 2023), segue a tendência no âmbito acadêmico-científico global de incentivar a integração de tecnologias tradicionais e inovações eletrônico-digitais na produção de imagens associadas à pesquisa científica unindo CIÊNCIA E ARTE.

Aberta aos sócios da SBFTE, esta iniciativa visa: (i) revelar e divulgar trabalhos e obras digitais de qualidade, categorizados como "originais" ou "originais/inéditos", concebidos por **"Cientistas-Artistas"** ou resultantes da **"Colaboração entre Cientistas e Artistas"**, originados em instituições de Ensino Superior e de Pesquisa no país ou no exterior, que intersectam as fronteiras dos conceitos e teorias da ciência incluindo o olhar e despertar de percepções da arte no campo da Farmacologia e Terapêutica Experimental e áreas afins e (ii) estimular estudantes e pesquisadores a incorporar conceitos e recursos de arte para expressar suas pesquisas e iniciativas educacionais que tenham adesão a temáticas de ciência, tecnologia e inovação em Farmacologia e Terapêutica Experimental.

A meta é estabelecer a ***Mostra Ciência & Arte SBFTE*** como evento permanente no calendário da sociedade, permitindo aos seus associados um espaço para promoção e divulgação dos seus trabalhos/obras. Esperamos que as obras de nossos cientistas-artistas motivem a todos para participarem das próximas edições.

Atenciosamente,

Grupo Especial de Iniciativas Educacionais - IE/SBFTE
https://sbfte.org.br/iniciativas-educacionais/
Email: iniciativaseducacionais.sbfte@gmail.com

Obras Selecionadas

Eixo 1: Cientistas-Artistas

1) **Título da Obra:** Boneca Russa-Matrioshka
Autores: Carla Pereira da Silva (mestranda); Rafaella Valete Nunes Paiva (doutoranda); Maria Christina W. Avellar
PPG: Programa de Pós-graduação em Farmacologia
Instituição: Universidade Federal de São Paulo - Escola Paulista de Medicina (Unifesp-EPM)

2) **Título da Obra:** Vacinação: Protegendo Hoje, Garantindo o Amanhã
Autores: Pâmela Yasmin de Ferreira Oliveira (mestranda); Hericles Mesquita Campos (doutorando); Renata Mazaro e Costa; Raphaela de Castro Georg; Jacqueline Alves Leite
PPG: Programa de Pós-graduação em Ciências Biológicas
Instituição: Universidade Federal de Goiás - UFG

3) **Título da Obra:** O Sorriso Esquecido
Autores: Stephanie de Moura Araújo Fernandes (doutoranda)
PPG: Programa de Pós-graduação em Farmacologia
Instituição: Universidade Federal do Paraná – UFPR

Eixo 2: Colaboração Cientistas e Artistas

1) **Título da Obra:** Guardião da vida na ponta da aquarela
Autores: Gabriela Macedo dos Reis (artista); Rafaella Valete N. Paiva (doutoranda); Carla Pereira da Silva (mestranda); Diego W. Siriani Ribeiro (iniciação científica); Maria Christina W. Avellar
PPG: Programa de Pós-graduação em Farmacologia
Instituição: Universidade Federal de São Paulo - Escola Paulista de Medicina (Unifesp-EPM)

2) **Título da Obra:** O alvo é o Rei-ceptor
Autores: Aimêe "Sarang" Mothé (artista); François Germain Noël
PPG: Farmacologia e Química Medicinal
Instituição: Universidade Federal do Rio de Janeiro - UFRJ

3) **Título da Obra:** Raízes do saber
Autores: Aimêe "Sarang" Mothé (artista); François Germain Noël
PPG: Farmacologia e Química Medicinal
Instituição: Universidade Federal do Rio de Janeiro - UFRJ

Conheça os textos explicativos e as informações técnicas sobre a criação de cada trabalho/obra digital acessando o QR code

Qual foi a sua obra preferida?

Acesse o link abaixo e vote nela:

https://forms.gle/Fr26oMubk9uV32bV7

Prazo final de votação:

9 horas do dia 10/10

Scientific Program

Program

II National Pain Symposium: *Addressing Challenges and Innovations in Lifespan Pain Management*

October 7th, 2024(Monday)

7:30-8:30 am	**Meeting registration**	
	Adriático Room	
8:30-8:40 am	**Welcome**	
8:40-10:10 am	**Session I: New Approaches in the Study and Management of Pain** Chair: Susan D. Brain (King's College London, UK) & Nara Lins Meira Quintão (Univali) **Keynote Lectures**	
	8:40-9:20 am	**Early Life Microbiota Colonization Programs Pain Sensitivity** Christophe Altier (University of Calgary, Canada)
	9:20-9:50 am	**PPAR-γ as Target to Manage Chronic Pain** Nara L. M. Quintão (Univali)
	9:50-10:00 am	*Oral Communication 1:* 05.022 *Influence of sleep restriction on the development of responses associated with migraine in male and female rats.* Oliveira GC[1], Luz FMR[1], Chichorro JG[1] [1]UFPR Curitiba, Dpt of Pharmacology, Brazil
	10:00-10:10 am	*Oral Communication 2:* 05.031 *4-Hydroxinonenal is involved in morphine tolerance and hyperalgesia by activating transient receptor potential Ankyrin 1.* Pennachioni NP [1], Stein Neto B[1], Hosch NG[1], Martins BB[1], Assis GS[1], Dallazen JL[1,2], Zambelli VO[1,2] [1]Butantan Institute, Lab for Pain and Signaling, [2]CENTD/Butantan Institute
10:10-10:25 am	**Coffee-break**	
10:25 am-12:00 pm	**Session II: New Approaches in the Study and Management of Pain** Chair: Stuart Bevan (King's College London, UK) & Elizabeth Soares Fernandes (FPP) **Keynote Lectures**	
	10:25-11:00 am	**Unraveling the mechanisms Behind Sensory Alterations in CHIKV Infection** Robson da Costa (UFRJ)
	11:00-11:35 am	**Pronociceptive Role of Spinal Cav2.3 (R-type) Calcium Channels in Postoperative Pain.** Juliano Ferreira (UFSC)
	11:35-11:45 am	Oral Communication 1: 05.001 *Contribution of T-type calcium channels and ATP-sensitive potassium channels to CGRP signaling in the trigeminal ganglion of male and female rats.* Luz FMR, Baggio DF, Lejeune VBP, Chichorro JG UFPR, Dpt of Pharmacology
	11:45-11:55 am	Oral Communication 2: 05.047 *Impaired mitochondrial dynamics underlies paclitaxel-*

		induced axonal degeneration. Hösch NG, Martins BB, Zambelli VO Butantan Institute, Lab of Pain and Intracellular Signaling
12:00 am-1:30 pm	**Lunch**	
1:30-3:00 pm	**Roundtable 1: How Culture, Ethnicity, and Socioeconomic Factors Influence Pain Perception and Treatment Assess** Chair: Elizabeth Soares Fernandes (FPP) & Maria Martha Campos (PUC-RS) • *Access to Care: Treating Pain Across Cultural Divides* Kaitlin Roberson (Cacti Therapeutics, USA) • *To be announced* João Batista Garcia (UFMA) • *Sex/Gender Biases in Pain Research and Clinical Practice.* Jamir João Sarda Junior (Univali)	
3:00-3:20 pm	**Coffee-break**	
3:20-5:00 pm	**Session III: New Approaches in the Study and Management of Pain** Chair: José Roberto Santin (Univali) & Nara Lins Meira Quintão (Univali) **Keynote Lectures**	
	3:20-4:00 pm	**Effects of phytocannabinoids on pain and inflammation in human and veterinary patients: Results from two Brazilian randomized clinical trials** Francisney Nascimento (Unila)
	4:00-4:40 pm	**Psychedelics for Treating Chronic Pain** Kaitlin Roberson (Cacti Therapeutics, USA)
	4:40-4:50 pm	Oral Communication 1: 05.014 *Antinociceptive profile of different compositions of phytocannabinoid extracts.* Junger MG, Matheus ME, Miranda ALP [1]ICB-UFRJ, Lab of Studies in Experimental Pharmacology
	4:50-5:00 pm	Oral Communication 2: 05.017 *Multimodal analgesia with transdermal buprenorphine produces efficacious and safe antinociception in burned mice.* Hoepers JVA, Godoi MM, Ferreira J UFSC Florianópolis, Dpt of Pharmacology
7:00 pm	**Opening session** 56th Brazilian Congress of Pharmacology and Experimental Therapeutics	
7:30 pm	**Opening Lecture** 56th Brazilian Congress of Pharmacology and Experimental Therapeutics	

October 8th, 2024(Tuesday)

9:00-10:00 am	**Session IV: New Approaches in the study and management of pain** Chair: Vinícius de Maria Gadotti (Univali) & Soraia K. P. Costa (USP-SP) **Keynote Lectures**	
	9:00-9:30 am	**Transfer of Sensory Abnormalities from Patients to Mice** David Anderson (Kings College, UK)

	9:30-10:00 am	**Cannabis and the Endocannabinoid System in the Control of Arthritis Pain** Jason McDougall (Dalhousie University, Canada)
10:00-10:20 am	**Coffee-break**	
10:20 am-12:00 pm	**Roundtable 2: Challenges in Managing Pain in Youngest and the Elderly** *Chair:* Elizabeth Soares Fernandes (FPP) & José Roberto Santin (UNIVALI) • *Pain management in the paediatrics: focus on the pain associated to movement disorders.* Leonardo Almeida Frizon (FPP) • *Pain Management in the Elderly* Bruno Bertoli Esmanhotto (FPP) • *Inflammatory Pathways in Chronic Pain: Evidence From Pre-Clinical and Clinical Studies.* Maria Martha Campos (PUC-RS)	
12:00-1:40 pm	**Lunch**	
4:00-5:30 pm	**E-Poster Session 1** 56th Brazilian Congress of Pharmacology and Experimental Therapeutics	
	October 9th, 2024(Wednesday)	
4:00-5:30 pm	**E-Poster Session 2** 56th Brazilian Congress of Pharmacology and Experimental Therapeutics	
	October 10th, 2024(Thursday)	
09:00-10:30 am	**Posters session 3** 56th Brazilian Congress of Pharmacology and Experimental Therapeutics	

Program
56th Brazilian Congress of Pharmacology and Experimental Therapeutics

October 7th, 2024(Monday)

7:30 am	**Venue Secretariat and SBFTE Secretariat Opening**
8:00-11:00 am	**SBFTE e Divulgação de Farmacologia na Escola Pública** (Promoting Pharmacology in Primary Public Schools in Balneário Camboriú) Chairs: Soraia K. P. Costa (SBFTE President) / Weverton Castro Coelho-Silva (Coordinator SBFTE Jovem Committee, USP-RP)
8:30-12:00 am Adriático Room	**II National Pain Symposium:** *Addressing Challenges and Innovations in Lifespan Pain Management*
9:00 am-12:00 pm Ártico Room	**Meeting of the Board of SBFTE Directors and Deliberative Council** (Council and Directory Board Members only)
9h00 am-12:00 pm Egeu Room	**Pre-Congress Course** **Learning the Discovery and Development Process of New Drugs and Medicines with the Screener Educational Game** (Aprendendo o Processo de Descoberta e Desenvolvimento de novos Fármacos e Medicamentos com o Jogo Educacional Screener) Chair: François G. Noel (UFRJ)
10:00-10:20 am	**Coffee-Break**
12:00-13:00 am	**Lunch**
12:30-13:00 pm Ártico Room	**Technical Lecture** **Descubra o Poder da Tecnologia da Telemetria Kaha no Registro de Parâmetros Cardiovasculares** Leopoldo Barletta (ADInstruments)
1:00-5:00 pm Egeu Room	**Pre-Congress Course** **Learning the Discovery and Development Process of New Drugs and Medicines with the Screener Educational Game** (Aprendendo o Processo de Descoberta e Desenvolvimento de novos Fármacos e Medicamentos com o Jogo Educacional Screener) Chair: François G. Noel (UFRJ)
1:00-3:00 pm Ártico Room	**Meeting of SBFTE Permanent Forum of Graduate Courses in Pharmacology**
1:30-5:00 pm Adriático Room	**II National Pain Symposium:** *Addressing Challenges and Innovations in Lifespan Pain Management*
3:00-3:20 pm	Coffee break

<table>
<tr><td>3:20-4:30 pm

Ártico Room</td><td colspan="2">RT1 – A View on Postgraduate Courses in Pharmacology in Brazil: Perspectives and Challenges (Um Olhar sobre a Pós-Graduação em Farmacologia no Brasil: Perspectivas e Desafios) (Presented in Portuguese)
Chair: Rosane Gomez (UFRGS, Coordinator Permanent Forum of Graduate Courses in Pharmacology
• Profile of Pharmacology Graduate Students (Perfil dos pós-graduandos em farmacologia)
Mauricio Schuler Nin (UFCSPA, SBFTE Jovem)
• Institutional support for postgraduate studies in the country and pharmacology area (O fomento institucional à pós-Graduação no país e na área de farmacologia)
Priscila Lelis Cagni (CAPES)</td></tr>
<tr><td>5:00-5:40 pm

Ártico Room</td><td colspan="2">Merging Scientific Discoveries with Artistic Expression, Iniciativas Educacionais SBFTE (IE-SBFTE)
Neuroscience and Arts Connection. Building Pluriverses, Integrating Multiple Knowledges (Conexão Neurociência e Artes. Construindo Pluriversos, Integrando Múltiplos Saberes)
Norberto Garcia-Cairasco (USP-RP)
Chair: Maria Christina W. de Avellar (Unifesp-EPM)</td></tr>
<tr><td>Caspio Room</td><td colspan="2">Launch of the I Mostra de Arte & Ciência SBFTE (I Science and Art Exhibit – SBFTE)</td></tr>
<tr><td rowspan="3">Ocean Place
Av. Atlântica, 5700
Centro
Balneário Camboriú
SC</td><td>7:00-7:30 pm</td><td>Opening Session</td></tr>
<tr><td>7h30-8h20 pm</td><td>Opening Lecture
L1 – Rocha e Silva Memorial Lecture
Calcitonin Gene-Related Peptide (CGRP) Agonists Protects against Remodeling in Heart Failure
Susan D. Brain (King's College London, UK)
Presented by Soraia K. P. Costa (USP-SP)</td></tr>
<tr><td>8h30-10h00 pm</td><td>Cocktail</td></tr>
</table>

October 8th, 2024(Tuesday)

8:00 am-6h00 pm Cáspio Room	**Merging Scientific Discoveries with Artistic Expression** – Iniciativas Educacionais SBFTE (IE-SBFTE) *I Mostra de Arte & Ciência SBFTE* (I Science and Art Exhibit – SBFTE)
9:00-10:00 am Adriático Room	**II Symposium on Pain: Advances and Perspectives**
08:00-08:50 am	**Courses**
Mediterrâneo Room	Cr1 – **Reliability, Transparency, And Quality: Tips from Obtaining Data to Completion (Confiabilidade, Transparência e Qualidade: Dicas desde a Obtenção dos Dados até a Conclusão)** (Presented in Portuguese) Chair: Janaína Menezes Zanoveli (UFPR) ♦ Class 1: *Power of the test x n sample* (*focus on the 3 R's): approach to its importance in the design of studies* (*Poder do teste x n amostral* (*foco nos 3 Rs): abordagem sobre sua importância no delineamento dos estudos*) Janaina Menezes Zanoveli (UFPR)
Figueira Room	Cr2 – **Experimental Models of Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD): Focus on Discovering new Therapeutic Targets** (Modelos Experimentais dos Transtornos Do Espectro Autista (TEA) e Déficit de Atenção e Hiperatividade (TDAH): Foco na Descoberta de Novos Alvos Terapêuticos) (Presented in Portuguese) **Chair:** Luisa Mota da Silva (UFSC) ♦ Class 1: *Experimental models of ASD and the possibilities of new therapeutic strategies exploring the gut-brain connection* (*Modelos experimentais de TEA e a possibilidades de novas estratégias terapêuticas explorando a conexão intestino-cérebro*) Luisa Mota da Silva (UFSC)
Ártico Room	Cr3 – **How to build a Vascular Aging Model: from Molecular Targets to Pharmacological Tools. (Como criar Modelos de Envelhecimento Vascular: de Alvos Moleculares às Ferramentas Farmacológicas)** (Presented in Portuguese and in English) **Chair:** Paulo de Assis Melo (UFRJ) ♦ Class 1: *From the concept of cellular aging to the development of* in vitro *and* in vivo *models for identifying pharmacological targets* (*Desde o conceito de envelhecimento celular até o desenvolvimento de modelos* in vitro *e* in vivo *para identificação de alvos farmacológicos*) Lucienne da Silva Lara Morcillo (UFRJ)
09:10-10:00 am	**Lectures**
Mediterrâneo Room	L2 – **Right handed amino acids: new molecular codes in brain signaling in health and disease** (Via Streaming) Jean-Pierre Mothet (Université Paris-Saclay, France) Presented by Isis N O Souza (UFRJ)
Figueira Room	L3 – **Pharmacology 2.0: Advanced Models for the Development of New Therapies of Age Related Inflammatory Diseases** Martina Schmidt (University of Groningen, The Netherlands) Presented by Samuel dos Santos Valença (UFRJ)
10:00-10:20 am	Coffee-break

10:20-12:20 am	**Symposia/Oral Communication**
Mediterrâneo Room	S1 – **Pharmacology Without Borders: Emerging Technologies and Trends from British and Brazilian Pharmacology Societies** **Drug Discovery and Therapeutic Innovation for the Treatment of COPD: Translating Basic Respiratory Pharmacology into Clinical Practice** Chair: Marco Aurelio Martins (Fiocruz) & Clive Page (King's College, UK) ♦ *Use of preclinical models to investigate novel drugs for the treatment of respiratory diseases* Marco Aurelio Martins (Fiocruz) ♦ *Early experimental medicine studies for investigating new drugs for COPD* Dave Singh (University of Manchester, UK) ♦ *My adventures with developing novel drugs for the treatment of respiratory diseases* Clive Page (King's College, UK)
Figueira Room	S2 – **The Excitatory-Inhibitory Balance as a Target to treat Mental Disorders** **Chair:** Felipe Villela Gomes (USP-RP) ♦ *Excitatory-inhibitory mechanisms in stress related models: a target for pharmacological intervention* Marco Andrea Riva (University of Milan, Italy) ♦ *Fixing broken synapses: glutamatergic and GABAergic dysfunction in depression and reversal by novel treatments* Manoela Viar Fogaça (University of Rochester, USA) ♦ *Biomarkers that capture excitation-inhibition imbalance in humans* Patricio O'Donnell (Alto Neuroscience, USA) ♦ Oral Communication 1: 03.011 *MK-801-induced disruption of shoal cohesion in Zebrafish is not counteracted by the antipsychotic sulpiride*. Becker SZ, Gallas-Lopes M, Bruck SM, Bastos LM, Stahlhofer-Buss T, Müller DV, Piato A, Herrmann AP. UFRGS, Dpt de Farmacologia ♦ Oral Communication 2: *Ayahuasca enhances fear extinction in female and male rats by the activation of infralimbic cortex 5-HT2A and 5-HT1A receptors* Werle I[1], dos Santos ALA[1], dos Santos RG[2], Hallak Jaime EC[2], Bertoglio LJ[1] [1]UFSC, Farmacologia; [2]USP-RP, Neurociências e Ciências do Comportamento
Ártico Room	S3 – **Redox Opportunities in the Treatment of Cardiovascular Diseases** **Chair:** Lucia Rossetti Lopes (USP-SP) ♦ *Poldip2 controls brain vascular permeability by regulating ROS-mediated tight junction phosphorylation and localization at the interendothelial border* Marina Sorrentino Hernandes (Emory University, USA) ♦ *Endoplasmic Reticulum Chaperones in Intercellular Redox Communication* Francisco Rafael Martins Laurindo (InCor-HC-FMUSP) ♦ *Protein Disulfide isomerase and Nox: novel redox therapeutic targets in the treatment of hypertension* Lucia Rossetti Lopes (USP-SP) ♦ Oral Communication 1*:* 06.014 *O-glyconacylation increases the gelatinolytic activity of Matrix Metalloproteinase (MMP)-2 in aortas treated with glucosamine and Thiamet G*. Bueno EKP[1], Neves VGO[1], Blascke de Mello MM[1], Ferreira GM[2], Tostes RC[1], Castro MM[1] [1]FMRP-

	USP, Dept Pharmacology; ²FCF-USP, Dept of Clinical and Toxicological Analysis ♦ Oral Communication 2: 06.054 *Vascular hyporesponsiveness in severe sepsis is associated with nitric oxide-dependent expression of G-protein receptor kinase*. Dal-Secco D¹, Olivon VC², Corrêa T¹, Celes MRN³, Akinaga J4, Lima V4, Oliveira AM², Rossi MA³, Pupo AS[4], Cunha FQ², Sordi R¹, Assreuy J¹ [1]UFSC – PPG in Pharmacology, ²FMRP-USP – Pharmacology and ³Pathology, [4]IBB-Unesp – Pharmacology
12:20-1:40 pm	Lunch
12:20-1:40 pm	
Mediterrâneo Room	**SBFTE Jovem Assembly** (with Lunch Box)
Ártico Room	**Meeting of the North-Northeast and Central West Region Pharmacology Network** (with Lunch Box)
14:00-16:00 pm	**Symposia/Roundtable**
Mediterrâneo Room	S4 – **Targeting Metabolic Dysfunctions and Obesity: New Approaches and Insigths** **Chair:** Luciene Bruno Vieira (UFMG) ♦ *Effects of dietary fiber on intestinal microbiota and behavioral and neurobiochemical changes in a murine model of Huntington's Disease* Fabíola Mara Ribeiro (UFMG) ♦ *Metabolic Programming of obesity: can prevention be achieved*? Cristiane Matté (UFRGS) ♦ *Mechanisms by which chronic hyperpalatable diet may induce cognitive alterations* Luciene Bruno Vieira (UFMG) ♦ Oral Communication 1: 07.003 *Organizational effects of sex steroids on non-motor symptoms of parkinson's disease in Wistar rats*. Zanotti VA¹, Baptista G², Gregorio T¹, Silva LCS¹, Piana EDM¹, Caverzan S¹, Cruz MPM¹, Prediger, RDS[2], Lima FB¹,² ¹UFSC Dpt of Physiological Sciences; ²PPGFMC-UFSC ♦ Oral Communication 2: 07.006 *Autophagy and cellular senescence in benign prostatic hyperplasia in obesity*. Fernandes CMAS, Lemos G, Calmasini FB Unifesp-EPM – Dept Pharmacology
Figueira Room	S5 – **Cellular Plasticity in Inflammation** **Chair:** João Alfredo de Moraes (UFRJ) ♦ *Neutrophil Extracellular Traps* (*NETS*) *support cancer progression by induction of chemoresistant phenotypes* Robson de Queiroz Monteiro (UFRJ) ♦ *Effect of tumor extracellular vesicles on neutrophil polarization* João Alfredo de Moraes (UFRJ) ♦ *Integrative approach to determine mechanisms and novel therapeutic targets for difficult-to-treat rheumatoid arthritis patients* ♦ Zsuzsanna Helyes (Pécs University, Hungary) ♦ Oral Communication 1: 01.014 *Effects of Interleukin-1ß on the plasticity of differentiated neurons from the human neuroblastoma lineage SH-SY5Y*. Barros ASM¹, Matias Pereira AC², Vatanabe IP², Pinheiro NR³, Sebollela AS³, Lisboa SF[1,2] ¹FMRP-USP, Dept Pharmacology, ²FCFRP-USP, Dept Biomolecular Sciences, ³FMRP-USP, Dept Biochemistry and Immunology

	♦ Oral Communication 2: 01.001 *The effect of adipose tissue secretome of patients with obesity under metformin on the differentiation and activity of osteoblasts*. Andrade-Santos C[1], Silva-Forte Y[1], Gonzalez-Joaquim L[1], Pantoja-Marinho C[1], Kraemer-Aguiar LG[2], Falcão-Leal PR[2], Barja-Fidalgo TC[1]. [1]IBRAG-UERJ, Lab Cellular & Molecular Pharmacology, Dept Cell Biology, [2] CePEM-UERJ
Ártico Room	RT2 – **Beyond the Academy (Além da Academia)** Chair: Weverton Castro Coelho-Silva (Coordinator SBFTE Jovem Committee, USP-RP) ♦ *The opportunities in Animal and Plant Health and Inspection and future perspectives* (*As oportunidades e Inspeção em Saude Agropecuaria e perspectivas futuras*) Fabiano Barreto (MAPA--LFDA-RS) ♦ *Scientific entrepreneurship and scientific communication as a career path* (*Empreendedorismo científico e comunicação científica como percurso profissional*) Sandra Milena Bonilla Becerra (Science Illustrator- Independent) ♦ *From academic to corporative carreer: the transition and business relationships step by step* (*Da carreira acadêmica à corporativa: a transição e as relações comerciais passo a passo*) Jéssica Maria Sanches Lopes (Grupo NC)
4:00-5:30 pm	**E-Poster Session 1** (with Coffee-break)
Mediterrâneo Room	**Totem 1** 01. Cellular and Molecular Pharmacology (01.012 a 01.016, 01.018) **Totem 2** 02. Neuropharmacology (02.001 a 02.004, 02.007, 02.013) **Totem 3** 02. Neuropharmacology (02.041 a 02.045) 07. Endocrine, Reproductive and Urinary Pharmacology (07.018 a 07.020) **Totem 4** 03. Psychopharmacology (03.007 a 03.013) **Totem 5** 04. Inflammation and Immunopharmacology (04.001 a 04.006) **Totem 6** 04. Inflammation and Immunopharmacology (04.019 a 04.020, 04.022 a 04.024) **Totem 7** 05. Pain and Nociception Pharmacology (05.001 a 05.005, 05.007 a 05.008, 05.013) **Totem 8** 05. Pain and Nociception Pharmacology (05.017 a 05.018, 05.020, 05.021, 05.024 a 05.025) **Totem 9** 05. Pain and Nociception Pharmacology (05.045 a 05.051) **Totem 10** 06. Cardiovascular and Renal Pharmacology (06.001 a 06.003, 06.005, 06.012) **Totem 11**

	06. Cardiovascular and Renal Pharmacology (06.016 a 06.017, 06.021) 14. Pharmacology: Other (14.001 a 14.004) **Totem 12** 06. Cardiovascular and Renal Pharmacology (06.026 a 06.028, 06.030 a 06.031, 06.035, 06.045) **Totem 13** 07. Endocrine, Reproductive and Urinary Pharmacology (07.001 a 07.005) 10. Cancer Pharmacology (10.001 a 10.004) **Totem 14** 07. Endocrine, Reproductive and Urinary Pharmacology (07.014 a 07.017) 08. Respiratory and Gastrointestinal Pharmacology (08.010 a 08.014) **Totem 15** 09. Natural Products and Toxinology (09.001, 09.002, 09.004, 09.006 a 09.009) **Totem 16** 09. Natural Products and Toxinology (09.029 a 09.032, 09.034 a 09.037, 09.044) **Totem 17** 10. Cancer Pharmacology (10.005, 10.006, 10.008 a 10.010) **Totem 18** 10. Cancer Pharmacology (10.015 a 10.023) **Totem 19** 11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology (11.011 a 11.016) 12. Drug Discovery and Development (12.007 a 12.009) **Totem 20** 12. Drug Discovery and Development (12.010 a 12.013, 12.015, 12.016)
5:30-6:40 pm Adriático Room	**Women in Pharmacology in Brazil Award – 2024 Edition** Chair: Soraia K. P. Costa (USP-SP) *Category Leader* **Marine Natural Products and Their Targets: The Great Inspiration to Pharmacology and Therapeutics** Leticia Veras Costa-Lotufo (USP-SP) *Category: Emerging Leader* **Fear Not: A Career Consolidated on Memories, Cannabinoids and Other Drugs** Cristina A. J. Stern (UFPR)
6h45-7h45 pm Adriático Room	**SBFTE Assembly**
8h30 pm	Dinner Cristo Luz (by reservation, not included in the event registration) (Bus Meeting Point at Sibara Hotel Front Desk)

October 9th, 2024 (Wednesday)

08h00 am-6h00 pm Cáspio Room	Merging Scientific Discoveries with Artistic Expression - Iniciativas Educacionais SBFTE (IE-SBFTE) *I Mostra de Arte & Ciência SBFTE* (I Science and Art Exhibit – SBFTE)'
8:00-8:50 am	**Courses**
Mediterrâneo Room	**Cr1 – Reliability, Transparency, And Quality: Tips from Obtaining Data To Completion** (*Confiabilidade, Transparência e Qualidade: Dicas desde a Obtenção dos Dados até a Conclusão*) (Presented in Portuguese) Chair: Janaína Menezes Zanoveli (UFPR) ♦ Class 2: *Guidelines for reporting methodologies in animal experimentation: Have you ARRIVEd there yet?* (*Diretrizes para relatar metodologias em experimentação animal: Have you ARRIVEd there yet?*) Quelen Iane Garlet (UFPR)
Figueira Room	**Cr2 – Experimental Models of Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD): Focus on Discovering new Therapeutic Targets** (*Modelos Experimentais dos Transtornos do Espectro Autista (TEA) e Déficit de Atenção e Hiperatividade (TDAH): Foco na Descoberta de Novos Alvos Terapêuticos*) (Presented in Portuguese) **Chair:** Luisa Mota da Silva (UFSC) ♦ Class 2: *Maternal immune activation as an experimental model in the search for therapeutic targets in the study of ASD* (*Ativação imune materna como modelo experimental na busca de alvos terapêuticos no estudo do TEA*) Alexandre Giusti Paiva (UFSC)
Ártico Room	Cr3 – **How to build a vascular aging model: from molecular targets to pharmacological tools**. (*Como criar modelos de envelhecimento vascular: de alvos moleculares às ferramentas farmacológicas*) **Chair:** Paulo de Assis Melo (UFRJ) Presented in Portuguese and in English) ♦ Class 2: *Understanding the role of mitochondria and reactive oxygen species signaling in a vascular accelerated aging animal model* (*Compreendendo o papel da sinalização de espécies reativas de oxigênio e das mitocôndrias em um modelo animal de envelhecimento vascular acelerado*) Sabrina Ribeiro Gonsalez (Erasmus University/UFRJ)
9:10-10:00 am	**Lectures**
Mediterrâneo Room	L4 – **Induction of antiviral Interferon-Stimulated Genes (ISGs) by neuronal STING promotes the resolution of pain** Christophe Altier (University of Calgary, Canada) Presented by Nara Lins Meira Quintao (Univali)
Figueira Room	L5 – **Effects of Sweetener Chronic Consumption on Brain Neurotransmission and Cognition** Sylvie Granon (Paris-Saclay Institute of Neuroscience, France) Presented by Maria Aparecida Barbato Frazão Vital (UFPR)
10:00-10:20 am	Coffee-break

10:20-12:20 am	Symposia/Oral Communication
Mediterrâneo Room	S6 – **Projecting the Future of Clinical Pharmacological Research in Argentina, Brazil and Chile** Chair: Soraia K P Costa (USP-SP) ♦ *The future of pharmacology: from artificial intelligence to cell therapies* Ventura Simonovich (President of the Argentine Society for Experimental Pharmacology) ♦ *An integrated research effort to prevent and treat dengue* Mauro M. Teixeira (UFMG) ♦ *From the Bench to the Patient in the Repurposing of old drugs for Chagas Disease* Juan Diego Maya (University of Chile, Chile) ♦ Oral Communication 1: 11.011 *The pyrethroid metabolite 3-Phenoxybenzoic Acid (3-PBA) has chronotropic and ionotropic effect on isolated atrial tissue: Possible involvement of Nav1.5*. da Costa JNA[1], Marques LP[1]; Lima MRC[1]; Souza DS[2]; Alcântara FS[1]; Fonseca JLT[1]; Orts DJB[1]; Roman-Campos D[1] [1]Unifesp-EPM Cardiobiology Lab, Biophysics Dept; [2]UFS 11.017 Oral Communication 1: *Development of a PBPK model to predict Drug-Drug Interactions (DDI) following oral administration of ayahuasca and synthetic medications*. Ribeiro GSG, Martins FS, Marcourakis T USP-SP
Figueira Room	S7 – **SGLT2 and GLP1 Drugs Transcend Endocrine Benefits and Produce Cardiovascular and Renal Protection** **Chair:** José Wilson do Nascimento Corrêa (UFAM) ♦ *Background of SGLT2 inhibitors and GLP1 agonists* José Wilson do Nascimento Corrêa (UFAM) ♦ *Cardiovascular and Renal benefits of GLP1 agonists* Adriana Castello Costa Girardi (USP-SP) ♦ *Cardiovascular and renal benefits of SGLT2 inhibitors* Coert J. Zuurbier (University of Amsterdam, The Netherlands) ♦ Oral Communication 1: 06.029 *Interaction of the antiarrhythmic drug amiodarone and dronedarone with the human Nav1.5 sodium channel depends on extracellular pH: New perspectives for the treatment of arrhythmic diseases*. Conceição MRL[1], Fonseca JLT[1], Souza DS[2], Marquesa LP[1], Alcântara FS[1], Orts DJB[1], Nascimento DS[2], Dantas CO[2], Vasconcelos CML[2], Roman-Campos D[1] [1]Unifesp/EPM, Dpt of Biophysics [2]UFS Dpt of Physiology Oral Communication 2: 06.030 *AP39, a mitochondria-targeted hydrogen sulfide (H_2S) donor, induces endothelial cell proliferation and migration via mitochondrial mechanisms*. Marques LAC[1], Veiga SMM[1], Silva LM[2], Câmara NOS[2], Costa, SKP[1], Muscará, MN[1] [1]ICB-USP Pharmacology; [2]ICB-USP Immunology[2], Brazil
Adriático Room	S8 – **Novel Hormonal Treatments for Mood Disorders: The Brain-Gonadal Axis** Chair: Helena Maria Tannhauser Barros (UFCSPA) ♦ *Novel rapid-acting neurosteroid-based antidepressants: new tools for the treatment of mood disorders* Graziano Pinna (University of Illinois at Chicago, USA) ♦ *Neurosteroids and ovarian physiology: central and peripheral modulation* Myriam Raquel Laconi (CONICET-University of Mendoza, Argentina)

	♦ *Neurosteroids and depressive-like phenotype differences based on sex: biomarkers of treatment efficacy* Helena Maria Tannhauser Barros (UFCSPA) ♦ Oral Communication 1: 02.044 *Allopregnanolone emerging role as a rapid-acting antidepressant agent and as a biomarker of neuropsychiatric disorders: evidence from basic and clinical findings*. Cruz EL, Pinna G The University of Illinois Chicago, Dpt Psychiatry USA ♦ Oral Communication 2: 02.002 *Exploring the mediation potential of URB597 as an antidepressant, anxiolytic, and anti-aversive agent*. Coelho-Silva WC[1], de Almeida JWT[2], Coimbra NC[3] [1,2,3]FMRP-USP Dept Pharmacology, FMRP-USP, [1,3]Department of Neurology and Behavior Science, [2,3]INEC
12:20-1:40 pm	**Lunch**
12:20-1:40 pm	
Mediterrâneo Room	**Meet the Professor** (with Lunch Box) Chair: SBFTE Jovem Committee • Anton Roks (Erasmus University, The Netherlands) • Christophe Altier (Calgary University, Canada) • Helena Maria Tannhauser Barros (UFCSPA) • Juan Diego Maya (University of Chile, Chile) • Lucia Rossetti Lopes (USP-SP) • Stephan Schmidt (University of Florida, USA) Zsuzsanna Helyes (Pécs University, Hungary)
Sala Figueira	**Technical Lectures** **Advances and Applications of Cell Culture in Toxicology and Pharmacology** (*Avanços e Aplicações do Cultivo de Células na Toxicologia e Farmacologia*) Ana Carolina Batista (BCJR) / Paola Cappelletti (BCJR)
14:00-16:00 pm	**Symposium**
Adriático Room	**José Ribeiro do Valle Award** **Chair**: Soraia K. P. Costa (USP-SP) *Guilherme Ruiz Leonardi* 07.018 **Pharmacological Characterization of Probenecid in Urinary Bladder and Corpus Cavernosum of Rodents and Non-rodents**. Leonardi GR, Passos GR, Moretti MB, de Barros JVC, Tonellotti E, Antunes E, Mónica FZ. Unicamp, Dpt of Translation Medicine (Pharmacology), PPG Pharmacology, Brazil *Luan Victor Resque Ramos* 06.033 **The Role of C3a on Matrix Metalloproteinase (mmp)-2 Activity, t CD4+ Cells and Oxidative Stress in Angiotensin-II-Induced Hypertension**. Ramos LVR[1], Mello MM[1], Bueno EKP[1], Oliveira Neto JT[1], Melo BMS[2], Tostes RC[1], Alves-Filho CF[1,2], Castro MM[1] [1]Department of Pharmacology, Ribeirão Preto Medical School, USP; [2]Department of Immunology, Ribeirão Preto Medical School, USP *Larissa Benvenutti* 08.016 **Effects of a PPARγ Partial Agonist on Lung Inflammation**. Benvenutti L[1], Nunes R[1], Ramos SA Vaz CR[1], Nilz P[1], Goldoni FC[1], Wolff FR[1], Pereira MES[1], Oliveira TF[2], Eller S[2], Marcon R[3], Corrêa R[1], de Campos Buzzi F[1], Quintão NLM[1], Santin JR[1]. [1]Univali, Itajaí/SC, Brazil; [2]UFCSPA, Porto Alegre/RS, Brazil; [3]UFSC, Center for Innovation and Pre-Clinical Trials (CIEnP), Florianopólis/SC, Brazil

	Thainá Omia Bueno Pereira 06.046 **Effect of** Nebivolol on Nitric Oxide Pathway and Endothelial Cell Migration in an *in vitro* Model of Preeclampsia. Bueno-Pereira TO, Nunes-Santos K, Matheus MB, Zampieri GM, Nunes PR, Sandrim VC Department of Biophysics and Pharmacology, Institute of Biosciences of Botucatu / Unesp, Botucatu, São Paulo, Brazil *Barbara Behr Martins* 05.041 **Drp1 as a Potential Target for the Treatment of Paclitaxel-induced Neuropathic Pain**. Martins BB[1], Hösch NG[1], Cunha TM[2], Chiaratti MR[3], Mochly-Rosen D[4], Ferreira JCB[5], Zambelli VO[1]. [1]Butantan Institute, [2]FMRP-USP, [3]UFSCAR, [4]Stanford University, USA; [5]ICB-USP
4:00-5:30 pm	**E-Poster Session 2** (with Coffee-break)
Mediterrâneo Room	**Totem 01** 01. Cellular and Molecular Pharmacology (01.024 a 01.025) 04. Inflammation and Immunopharmacology (04.037 a 04.041) **Totem 02** 02. Neuropharmacology (02.005, 02.008 a 02.012) **Totem 03** 02. Neuropharmacology (02.019 a 02.020, 02.022, 02.024, 02.026 a 02.028) **Totem 04** 02. Neuropharmacology (02.033 a 02.040) **Totem 05** 03. Psychopharmacology (03.001 a 03.006) **Totem 06** 04. Inflammation and Immunopharmacology (04.008, 04.10 a 04.014) **Totem 07** 04. Inflammation and Immunopharmacology (04.025 a 04.026, 04.028 a 04.030, 04.032) **Totem 08** 05. Pain and Nociception Pharmacology (05.006, 05.009 a 05.012, 05.014 a 05.016) **Totem 09** 05. Pain and Nociception Pharmacology (05.019, 05.022, 05.026 a 05.031) **Totem 10** 05. Pain and Nociception Pharmacology (05.032, 05.033, 05.035, 05.036, 05.039, 05.041) **Totem 11** 06. Cardiovascular and Renal Pharmacology (06.004, 06.006 a 06.008, 06.013) **Totem 12** 06. Cardiovascular and Renal Pharmacology (06.018 a 06.020, 06.022 a 06.025) **Totem 13** 06. Cardiovascular and Renal Pharmacology (06.029, 06.032 a 06.034, 06.036 a 06.038, 06.046) **Totem 14**

	07. Endocrine, Reproductive and Urinary Pharmacology (07.006 a 07.013) **Totem 15** 08. Respiratory and Gastrointestinal Pharmacology (08.001 a 08.007, 08.015, 08.016) **Totem 16** 08. Respiratory and Gastrointestinal Pharmacology (08.017 a 08.022) **Totem 17** 09. Natural Products and Toxinology (09.015 a 09.018, 09.020, 09.022) **Totem 18** 09. Natural Products and Toxinology (09.033, 09.038 a 09.043, 09.045, 09.046) **Totem 19** 11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology (11.001, 11.003 a 11.004, 11.006 a 11.009) **Totem 20** 11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology (11.017 a 11.024) 13. Pharmacology Education and Technology (13.001)
5:30-7:30 pm	**Symposia/Oral Communication**
Mediterrâneo Room	S9 – **New Targets for Neuropathic Pain and Migraine-Related Pain Relief** **Chair:** Gabriela Trevisan dos Santos (UFSM) ♦ *Autoantibodies* and pain Stuart Bevan (King's College London, UK) ♦ *Targeting mitochondria for chronic pain relief* Vanessa Olzon Zambelli (IBu) ♦ *Contribution of Cav3.2 to migraine-related responses* in vivo *and* in vitro Juliana Geremias Chichorro (UFPR) ♦ *TRPA1 and TRPV4 receptors as a new targets for pain control in multiple sclerosis* Gabriela Trevisan dos Santos (UFSM)
Figueira Room	S10 – **PBPK, PBBM, POPPK, POPPKPD, QSP: What does this Alphabet Soup have to do with Pharmacology**? **Chair:** Teresa Dalla Costa (UFRGS) ♦ *PBPK models to inform decision making in drug development: from early phases to formulation design* Manuel Ibarra (Universidad de la República, Uruguay) ♦ *Where, when, and how can the population pharmacokinetics approach be applied in drug discovery and precision dosing*? Bibiana Verlindo de Araújo (UFRGS) ♦ *Quantitative systems pharmacology: Current state and future opportunities* Stephan Schmidt (University of Florida, USA) ♦ *Oral Communication 1: 11.026 Colchicine loaded-cationic nanocapsule suspension: formulation development and population pharmacokinetic modeling in female Wistar rats*. Maciel TR[1,2], Pacheco CO[1,2], Ribeiro ACF[1,3], Haas SE[1,2,3]. [1]Unipampa, Pharmacology and

	Pharmacometric Lab; ² UFSM, Pharmaceutical Sciences Graduate Program; ³Unipampa, Biochemistry Graduate Program, ♦ Oral Communication 2: 11.019 *Is pharmacokinetic/pharmacodynamic models better than pharmacokinetic/pharmacodynamic indexes to select antimicrobial treatments? The ceftaroline case*. Dias BB[1], Helfer VE[1], Olivo LB[1], Zavascki AP[2,3], Dalla Costa, T[1], de Araújo BV[1] [1]UFRGS, Pharmacokinetics and PK/PD Modeling Lab, PPG Pharmaceutical Sciences, Brazil; [2]HCPA, Infectious Disease Service, Brazil; [3]UFRGS, Porto Alegre, Dpt of Internal Medicine
Adriático Room	**RT3 – Empowering women in Science and Technology: a roundtable discussion on equity** Chair: Patricia M. R. Silva Martins (Fiocruz) & Susan D. Brain (King's College London, UK) ♦ *Women in Science: The inconvenient Truth* Marcia Cristina Bernardes Barbosa (UFRGS, ex- Seppe-MCTI) ♦ *Working towards a successful research culture* Susan D Brain (King's College London, UK) ♦ *Gender equity in science: the role of scientific societies* (Via Streaming) Pâmela Billig Mello Carpes (Unipampa) ♦ *Just a latin-american (scientist) girl: a personal perspective on gender research* Isis Nem de Oliveira Souza (UFRJ, SBFTE Jovem)
21:00 pm-00:00 am	**Get together Party** Ocean Place Av. Atlântica, 5700 Centro Balneário Camboriú SC

October 10th, 2024(Thursday)

8h00 am-12:00 am Cáspio Room	Merging Scientific Discoveries with Artistic Expression - Iniciativas Educacionais SBFTE (IE-SBFTE) *I Mostra de Arte & Ciência SBFTE* (I Science and Art Exhibit – SBFTE)
8:00-8:50 am	**Courses**
Mediterrâneo Room	Cr1 – **Reliability, Transparency, And Quality: Tips from Obtaining Data To Completion** (*Confiabilidade, Transparência e Qualidade: Dicas desde a Obtenção dos Dados até a Conclusão*) (Presented in Portuguese) Chair: Janaína Menezes Zanoveli (UFPR) ♦ Class 3: *Reproducibility crisis: possible causes, consequences and how we can get around them* (*Crise de reprodutibilidade: possíveis causas, consequências e como podemos contorná-las*) Janaína Menezes Zanoveli (UFPR)
Figueira Room	Cr2 – **Experimental Models of Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD): Focus on Discovering new Therapeutic Targets (Modelos Experimentais dos Transtornos Do Espectro Autista (TEA) e Déficit de Atenção e Hiperatividade (TDAH): Foco na Descoberta de Novos Alvos Terapêuticos)** (Presented in Portuguese) **Chair:** Luisa Mota da Silva (UFSC) ♦ Class 3: *Experimental models of ADHD: unraveling neurobiology and new therapeutic targets* (*Modelos experimentais de TDAH: desvendando a neurobiologia e novos alvos terapêuticos*) Rui Daniel Schröder Prediger (UFSC)
Ártico Room	Cr3 – **How to build a Vascular Aging Model: From Molecular Targets to Pharmacological Tools. (Como criar Modelos de Envelhecimento Vascular: de Alvos Moleculares às Ferramentas Farmacológicas)** (Presented in Portuguese and in English) **Chair:** Paulo de Assis Melo (UFRJ) ♦ Class 3: *Exploring a new pharmacological approach to combat aging of the vasculature: focusing on the nitric oxide – cGMP signaling pathway and novel mitochondrial regulator compounds* (*Novas ferramentas farmacológicas para combater o envelhecimento vascular: foco em compostos que atuam nas sinalizações mediadas por óxido nítrico – cGMP e nas mitocondrias*) Anton Roks (Erasmus University, The Netherlands)
9:00-10:30 am	**E-Poster Session 3**
Mediterrâneo Room	**Totem 01** 01. Cellular and Molecular Pharmacology (01.001 a 01.004, 01.006) **Totem 02** 01. Cellular and Molecular Pharmacology (01.007 a 01.011) 08. Respiratory and Gastrointestinal Pharmacology (08.008 a 08.009) **Totem 03** 01. Cellular and Molecular Pharmacology (01.017, 01.019 a 01.023) **Totem 04** 02. Neuropharmacology (02.006, 02.014 a 02.018)

	Totem 05 02. Neuropharmacology (02.021, 02.023, 02.025, 02.029 a 02.032) **Totem 06** 03. Psychopharmacology (03.014 a 03.019) **Totem 07** 03. Psychopharmacology (03.020 a 03.025) **Totem 08** 04. Inflammation and Immunopharmacology (04.007, 04.009, 04.015 a 04.018) **Totem 09** 04. Inflammation and Immunopharmacology (04.027, 04.031, 04.033, 04.034, 04.036) **Totem 10** 05. Pain and Nociception Pharmacology (05.034, 05.037, 05.038, 05.042 a 05.044) **Totem 11** 06. Cardiovascular and Renal Pharmacology (06.009 a 06.011, 06.014, 06.015) **Totem 12** 06. Cardiovascular and Renal Pharmacology (06.039, 06.041 a 06.044, 06.047 a 06.048) **Totem 13** 06. Cardiovascular and Renal Pharmacology (06.049 a 06.056) **Totem 14** 08. Respiratory and Gastrointestinal Pharmacology (08.023, 08.024) 09. Natural Products and Toxinology (09.047 a 09.051) **Totem 15** 09. Natural Products and Toxinology (09.003, 09.005, 09.010 a 09.014) **Totem 16** 09. Natural Products and Toxinology (09.021, 09.023 a 09.028) **Totem 17** 10. Cancer Pharmacology (10.011 a 10.014) **Totem 18** 11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology (11.002, 11.010) 12. Drug Discovery and Development (12.001 a 12.006) **Totem 19** 11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology (11.025 a 11.028) **Totem 20** 14. Pharmacology: Other (14.005 a 14.006, a 14.008 a 14.012)
10:40-11:30 am Mediterrâneo Room	**Lectures** L6 – **Bioportide Technologies: New Biological Agents and a Platform for Drug Discovery** John Howl (Birmingham City University, UK) Presented by Erick José Ramo da Silva (Unesp-Botucatu)

Figueira Room	L7 – **MEDUSA Project: A potential therapeutic effect of nanoencapsulated cannabidiol on Panic-Like Behaviour Elicited in Male Mice by *Bothrops jararaca* pit vipers** Norberto Cysne Coimbra (USP-RP) Presented by Gilberto de Nucci (Unicamp)
11:30-11:50 pm	**Coffee-break (brunch)**
12:00-12:50 pm Adriático Room	**Closing Lecture** L8 – **miRNA Therapeutics: Lessons from Development of miR125b* and miR450a for Cardioprotection** Péter Ferdinandy (Semmelweis University, Hungary) Presented by Soraia K P Costa (USP-SP)
12:50-13:30 pm	**Closing Ceremony**

E-Poster Session 1 (08/10/2024)

Totem 1

01. Cellular and Molecular Pharmacology

01.012 **Short-term Effects of Epigallocatechin-3-Gallate on Hepatic Gluconeogenesis.** Bonetti CI; Correia BL; Manicardi FCN; Melo NMQE; Bracht L. UEM, Lab Hepatic Metabolism., Maringá, PR

01.013 **Nicotinamide Riboside Induced Energy Stress in BEAS-2B Cells.** Marzola EL[1], Cordeiro EWF[1] , Maekawa RS[1] , Santos MR[1] , Massafera MP2 , Di Mascio P[2] , Medeiros MHG[2], Ronsein GE[2], Loureiro APM[1] [1]FCF-USP São Paulo, Dpt of Clinical and Toxicological Analyses; [2]IQ-USP, Dpt of Biochemistry, São Paulo

01.014 **Effects of Interleukin-1β on the Plasticity of Differentiated Neurons from the Human Neuroblastoma Lineage SH-SY5Y**. Barros ASM[1], Matias Pereira AC[2], Vatanabe IP[2], Pinheiro NR[3], Sebollela AS[3], Lisboa SF[1,2] [1]FMRP-USP, Dept of Pharmacology, [2]FCFRP-USP, Dept Biomolecular Sciences, [3]FMRP-USP, Dept Biochemistry and Immunology

01.015 **Evaluation of *in vitro* Antioxidant and Neuroprotective Effects of Novel Piperazine Derivatives.** Campos HM[1], Saboia ABM[1], Ferreira PYO[1], Pagliarani B[2], Menegatti, R[3], Tarrozi A2, Ghedini PC[1] [1]UFG, Dept of Pharmacology, [2]University of Bologna,' Dept for Life Quality Studies, [3]UFG, Faculty of Pharmacy

01.016 **The Effects of Ibogaine Treatment on mRNA Expression of NMDA and GABAA Receptors Subunits in the Hippocampus of Male and Female Rats Exposed to Cocaine.** Heidrich, N[1], Almeida FB[1], Barth RA[1], Silva IAG[2], Fiore RL[2], Freese L[1], Barros HMT[12]. [1]UFCSPA, PPG Health Sciences; [2]UFCSPA, Dpt Pharmacosciences.

01.018 **The Semenogelin-1 Mimetic Compound EP055 inhibits Mouse Sperm Motility** *in vitro.* Santos NCM[1], Mariani NAP[1], Silva AAS[1], Calderaro G[1], Santos BR[1], Hamil KG[2], O'Rand MG[2], Silva EJR[1]. [1]IBB-Unesp, Dpt of Biophysics & Pharmacology,; [2]Eppin Pharma Inc., Research and Development

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02. Neuropharmacology

02.001 **Evaluation of the Antiepileptic Activity of Different Parts of *Trema micrantha* in Zebrafish (*Danio rerio*) subjected to Pentylenetetrazole.** Dutra AR[1], Dos Santos CR[2], Amorim C[3], Rodrigues DW[4], Gadotti VM[4], Cechinel-Filho V[4], De Souza MM[4]. [1]Univali, Pharmacy Undergraduate Program, [2]Univali, School of Health Sciences, Nutrition Undergraduate Program,. [3]Univali, School of Health Sciences, Biomedicine Undergraduate Program, [4]Univali, Pharmaceutical Science Graduate Program

02.002 **Exploring the Mediation Potential of URB597 as an Antidepressant, Anxiolytic, and Anti-Aversive Agent**. Coelho-Silva[1], de Almeida JWT[2], Coimbra[3] [1,2,3]FMRP-USP Dept Pharmacology, FMRP-USP, [1,3]Dept of Neurology and Behavior Science, [2,3]INEC

02.003 *Tithonia diversifolia* **(Helms.) Extract attenuates Cognitive Dysfunction in Streptozotocin-Induced Mouse Model of Sporadic Alzheimer's Disease.** Harle M[2], Cazarin CA[1] [2], Dalmagro AP[1] [3], Galvan J[2], Viera ME[2], Malheiros A[1] [2], de Souza MM[1,2]. [1]Univali, PPG Pharmaceutical Sciences; [2] NIQFAR-Univali, Chemistry and Pharmaceutical Research Center; [3]FURB, Dept of Pharmaceutical Sciences

02.004 **Social Support Modulates Distinctly in Female and Male Rats the Aversion triggered by dPAG Chemical Stimulation: A Non-Clinical Approach to the Social and Emotional Aspect.** Oliveira PHA, Lima Silva AHB, Zanoveli JM. UFPR, Dpt of Pharmacology

02.007 **Δ9-Tetrahydrocannabinol Modulates the Reconsolidation of Novel Object Recognition Differently in Males and Females.** Lourenço GC, Raymundi AM, Stern CAJ UFPR Curitiba, Dpt of Pharmacology

02.013 **Effects of Dorsolateral Periaqueductal Gray Purinergic P2 Receptors Activation on Contextual Conditioned Emotional Response in Rats.** Barros LS, Moraes-Neto T, Resstel LBM FMRP-USP, Dept of Pharmacology

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02. Neuropharmacology

02.041 **Taurine Recovers the Dopamine Turnover and Enhances Serotonin Levels in the Nucleus Accumbens of Alcohol Withdrawal Rats.** Pulcinelli RR[1], Caletti G[1], Almeida FB[1], Sant'Ana BH[1], Eller S[2], Nin MS[2], Oliveira TF[2], Gomez R[1]. [1]UFRGS, PPG Farmacologia e Terapêutica; [2]UFCSPA, Dpt de Farmacociências

02.042 **Oxytocin Receptor Activation Prevents Autonomic and Behavioral Alterations Evoked by Short-Term Social Defeat Stress.** Belém-Filho IJA[1], Busnardo C[2], Giati LO[2], Bonazoni MZB[1], Santos LB[1], Silva GVL[3], Resstel LBM[1], Corrêa FMA[1] [1]FMRP-USP, Dept of Pharmacology, [2] Unesp-FCFAr, Dept of Pharmaceuticals and Medicines, [3]FMRP-USP, Immunology, Basic and Applied

02.043 **Acute Running Stimulus Induces Lower Cellular Activation Rate in the Dentate Gyrus of Aged Mice Compared to Young Mice.** Silva JN, Rodrigues BA, Kawamoto EM. USP, Dept of Pharmacology

02.044 **Allopregnanolone Emerging Role as a Rapid-acting Antidepressant Agent and as a Biomarker of Neuropsychiatric Disorders: Evidence from basic and clinical findings.** Cruz EL[1] and Pinna G[1]. [1] The University of Illinois Chicago, Dpt Psychiatry USA

02.045 **Addressing Neurovascular Alterations in Metabolic Syndrome: Benefits of GLP-1 Receptor Agonist Treatment.** Estato V[1,2], Obadia N[1,3], Chateaubriand PH[2], Figueiredo V[2], Curty M[2], Silva MC[2], Ferreira RGL[2], Santa Rita J[3], Baroni MC[2], Aragão A[2], Neno JOG[2], Mendes de Vasconcellos CA[2], Granja MG[1] [2], Faria-Neto HCC[1] [1]Fiocruz, Lab of Immunopharmacology, [2]IDOMED – Estácio Medical School, [3]Estácio – Pharmacy School, Universidade de Sá – Rio de Janeiro.

07. Endocrine, Reproductive and Urinary Pharmacology

07.018 **Pharmacological Characterization of Probenecid in Urinary Bladder and Corpus Cavernosum of Rodents and Non-rodents.** Leonardi GR, Passos GR, Moretti MB, de Barros JVC, Tonellotti E, Antunes E, Mónica F. Unicamp, Dpt of Translation Medicine (Pharmacology), PPG Pharmacology

07.019 **Endothelium-Derived 6-Nitrodopamine Relaxes the Human Corpus Cavernosum.** Lorenzon F[1], Caliani Mathias-Netto F[1], Glina F[2], Glina S[2], Paiva O [2], Cintra Junior W[3], Itocazo Rocha R [3], Fregonesi A[1], de Miranda Cará A[4], De Nucci G[1,3] [1]Unicamp, Dpt of Pharmacology [2]FMABC, Dpt of Urology [3]USP, [4]Humanitas – Faculdade de Ciências Médicas de São José dos Campos

07.020 **The Role of Hesperidin in Renal System Modulation: Diuretic and Nephroprotective Effects.** De Souza P, Orengo SLD, Da Silva RCVAF, Filho VC PPGCF-Univali

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03. Psychopharmacology

03.007 **Effects of Sub-Anesthetic Doses of Ketamine on Cued Fear Conditioning in Rats.** Magalhaes, MS[1]. de Oliveira, AR[1,2] [1]UFSCar, Psychology; [2]INeC – Inst Neurosciences and Behavior

03.008 **Effects of *Lactiplantibacillus plantarum* 286 and *Lactiplantibacillus plantarum* 81 on Ethanol-induced Conditioned Place Preference Associated with Sleep Restriction in Mice.** Silva KSO[1], Resende GR[1], Fighera YM[1], Marinho EAV[2], Berro LF[2], Tamura EK[1]. [1]UESC, Chronobiology Research Group, [2]UESC, Dept of Health Sciences

03.009 **The treatment with Finasteride Blocks the Reconsolidation Impairing Effect of Cannabidiol.** Santos MR[1], Cardoso NC[1], Bertoglio LJ2, Guimarães FS[3], Pinna G[4], Stern CAJ[1] [1]UFPR, Dept of Pharmacology; [2]UFSC, Dept of Pharmacology; [3]USP-RP, Dept of Pharmacology, [4]University of Illinois Chicago, Dept of Psychiatry

03.010 **Lack of Sustained Effects Following Repeated Ketamine Exposure in Adult Zebrafish.** Müller DV, Gallas-Lopes M, Stahlhofer-Buss T, Bastos LM, Becker SZ, Bruck SM, Piato A, Herrmann AP. UFRGS, Dpt de Farmacologia

03.011 **MK-801-Induced Disruption of Shoal Cohesion in Zebrafish Is Not Counteracted by the Antipsychotic Sulpiride.** Becker SZ[1], Gallas-Lopes M[1], Bruck SM[1], Bastos LM[1], Stahlhofer-Buss T[1], Müller DV[1], Piato A[1], Herrmann AP[1]. [1]UFRGS, Dpt de Farmacologia

03.012 **Toll-Like Receptor 4 (TLR4) Inhibitor, TAK242, has Anxiolytic Effects on Male Mice.** Cunha LC[1], Lisboa SF[2] [1]FMRP-USP, Dept. of Pharmacology, [2]FCFRP-USP, Dept of BioMolecular Sciences

03.013 **Effects of Bromazepam and Fluoxetine on Behavioral Assays in Zebrafish.** Bruck SM, Gallas-Lopes M, Becker SZ, Zdradk JO, Müller DV, Bastos LM, Stahlhofer-Buss T, Piato A, Herrmann AP UFRGS, Dpt de Farmacologia

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04. Inflammation and Immunopharmacology

04.001 **Inhibition of Inflammation decrease Permeability and Increase Autophagy and Pyroptosis in an *in vitro* Model of Preeclampsia.** Nunes-Santos K, Bueno-Pereira TO, Sandrim VC, Nunes PR Unesp, Dept of Biophysics and Pharmacology

04.002 **Benefits of dimethyl fumarate against pulmonary emphysema: antioxidant and anti-inflammatory strategy.** Caribé EM[1],Cardoso AOP[2],Amorim CS[3],Valenca SS[1,2,3],Lanzetti M[1,2,3] [1]ICB-UFRJ, [2]ICB-UFRJ, Program of Immunology and Inflammation; [3]ICB-UFRJ, Program of Pharmacology and Medicinal Chemistry

04.003 **Healing Effect of Alginate Biomembrane with Biochanin A in Mice.** Sant'Ana ROS, Araújo JMD, Biano LS, Nascimento ACS, Ramos LS, Sales MR, Santos GJ, Vasconcelos ABS, Camargo EA, Grespan R. UFS-São Cristóvão, Dpt of Physiology

04.004 **Gastroprotective Effect of the Aerial Parts of the Aqueous Extract of *Mesosphaerum pectinatum* (L.) Kuntze in Mice.** Brito SC, Ramos LS, Biano LS, Souza DA, Araújo JMD, Nunes ERS, Palmeira DN, Sant'ana RO, Grespan R, Camargo EA UFS-São Cristóvão

04.005 **Evaluation of the Effects of Docosahexaenoic Acid on Experimental Sepsis Model of Cecal Ligation and Puncture.** Lacerda GSG[1,3], Moraes BPT[1,2,3], Almeida MAP[2,3], Moraes-de-Souza

I[1,3], Bozza PT[3], Castro-Faria-Neto HC[3], Almeida VEF[3], Costa MF[3], Cunha CMC[3], Souza-Souza KFC[1,3], Santos FS[2,3], Silva AR[2,3], Gonçalves-de-Albuquerque CF[1,2,3]. [1]Unirio, Immunopharmacology Lab., Dpt of Physiological Sciences; [2]UFF, PPG Neurosciences; [3]IOC-Fiocruz, Immunopharmacology Lab.,

04.006 **Effects of ATB-346 - a Hydrogen Sulfide-Releasing Naproxen Derivative - on the Proliferation and Migration of Cultured Endothelial Cells.**
da Veiga SMM[1], da Costa Marques LA[1], Silva FB[1], Teixeira SA[1], Costa SKP[1], Muscará MN[1] [1]ICB-USP, Dpt of Pharmacology

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04. Inflammation and Immunopharmacology

04.019 **Rapamycin Treatment might Prolong the Life of Diabetic Mice Infected with** *Sporothrix brasiliensis.* Oliveira MA[1], Albuquerque RC[2], Pereira BV[2], Tavares YPST[1], Silva CC[2], De Almeida SR[2], Martins JO[1]. [1]FCF-USP, Lab Immunoendocrinology, Dept of Clinical and Toxicological Analyses, [2]FCF-USP, Lab Mycology, Dept of Clinical and Toxicological Analyses

04.020 **Effect of Topical Application of GABAB Agonist in an Animal Model of Psoriasis Induced by Imiquimod.** Oliveira, VHS[1], Amorim, MA[1],Cabrini, DA[1],Otuki, MF[1],Calixto, JB[2],André, E[1] [1]UFPR, Dept of Pharmacology, [2]CIEnP

04.022 **Elevated IL-6 Central Levels were Associated to the Severity of Pain in Mice Subjected to an Arthritic Model.** Santos, NG[1,2,3,4], Bartikoski, BJ[3], Karnopp, TE[3], Espírito Santo, RC[3], Freitas, VS[3], Chapacais, GF[2,3], Gasparini, MLV[3], Torres, ILS[1,2,4], Xavier, RM[1,2,3,4]. [1]UFRGS, PPG in Biological Sciences: Pharmacology and Therapeutics, Dept of Pharmacology, [2]UFRGS, PPG in Medical Sciences, School of Medicine; [3]HCPA, Lab of Autoimmune Diseases, Division of Rheumatology; [4]HCPA, Lab Pain Pharmacology and Neuromodulation: Pre-clinical Investigations, Hospital de Clínicas de Porto Alegre, Porto Alegre, RS.

04.023 **Elastase-2 Knockout Mice Exhibit Enhanced Survival in Severe Sepsis: Implications for the Renin-Angiotensin System.** Dantas PB[1], Mestriner F[1], Dugaich VF[1], Ribeiro MS[1], Becari C[1,2] [1]FMRP-USP, Dept of Surgery and Anatomy, [2]FOB-USP, Dept of Biological Sciences

04.024 **Evaluation of the Anti-Inflammatory Activity of Salivary Gland Extracts obtained from Hematophagous Arthropods in a Murine Model of Rheumatoid Arthritis.** Costa VF[1], Santos JC[1], Ramos AS[1], Oliveira-Leandro M[1], Lavourini LS[1], Schneider AH[1], Rodrigues FC[1], Oliveira CJF[2], Sá-Nunes A[3], Cunha FQ[1] [1]FMRP-USP, Pain and Inflammation Lab, Dpt of Pharmacology, [2]Dpt of Microbiology, Immunology, and Parasitology, Institute of Biological and Natural Sciences, UFTM [3]Lab Experimental Immunology, Dpt of immunology, Institute of Biomedical Sciences,USP

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05. Pain and Nociception Pharmacology

05.001 **Contribution of T-Type Calcium Channels and ATP-Sensitive Potassium Channels to CGRP Signaling in the Trigeminal Ganglion of Male and Female Rats.** Luz FMR, Baggio DF, Lejeune VBP, Chichorro JG. UFPR

05.002 **Diosmetin Reduces Painful Symptoms and Comorbidities in a Reserpine-Induced Fibromyalgia Model in Mice.** Favarin A[1], Marquezin LP[1], Fialho MFP[1,2], Lara JD[3], Pillat MM[3], Rosemberg DB[2], Oliveira SM[1,2] [1]UFSM, Pain Research Group - Centre of Natural and Exact Sciences; [2]UFSM, Dpt of Biochemistry and Molecular Biology; [3]UFSM, Dpt of Microbiology and Parasitology.

05.003 **Acute Effect of Dypirone and Paracetamol in Migraine-Like Responses in Male and Female Rats.** Gomes LC[1], Spagnol FJ[1], Zortea JM[1], da Luz FMR[1], Kopruszinski CM[2], Chichorro JG[1]. [1]UFPR, Dept of Pharmacology, Biological Sciences Sector, [2]University of Arizona, Dept of Pharmacology, USA

05.004 **Preclinical Pharmacological Evaluation of Plastic Pharmaceutical Form Containing Cannabis Extract Aimed at Treating Pain.** Eloi F[1,2], Macário V[1], Oliveira BCCA[1], Santos YB[1], Guedes GN[1], Rezende B[1], Viveiros CS[3], Oliveira CC[4], Montes GC[1] [1]UERJ, Lab de Neurobiologia, [2]Unigranrio Afya; [3]FCF – Universidade Celso Lisboa, APEPI, [4]FCM-Unicamp, APEPI

05.005 **TRPV4 Activation Contributes to Anastrozole-Induced Painful Symptoms.** Lopes JPV[1], Fialho MFP[1,2], Brum ES[1,2], Becker G[1,2], Oliveira SM[1,2] [1]UFSM Santa Maria, Neurotoxicity and Psychopharmacology Lab, Pain Research Group, [2]USFM, PPG Biological Sciences: Toxicological Biochemistry

05.007 **Estrogen Hormone Replacement Therapy (EHRT) Partially Reversed the Decrease in Brainstem TNF-α Levels of Rats Ovariectomized and Submitted to Orofacial Pain Model.** Braga HB[1,4], Kroeff G[2,4], Vargas JLS[2,4], Stein DJ[3,4], Torres ILDS[2,3,4] [1]UFRGS, College of Pharmacy; [2]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics; [3]UFRGS, PPG in Medicine: Medical Sciences; [4]HCPA, Pharmacology of Pain and Neuromodulation Lab,

05.008 **Antinociceptive Properties of *Handroanthus heptaphyllus* (Vell.) Mattos Bark Hydroethanolic Extract in Experimental Models.** Venâncio GSO[1], Lencina JS[1], Lossavaro PKMB[1], Ferreira JV[1], Machado LL[1], Brentan-Silva D[2], Toffoli-Kadri MC[1], Silva-Filho SE[1]. [1]UFMS, Lab Pharmacology and Inflammation; [2]UFMS Campo Grande, Lab Natural Products and Mass Spectrometry

05.013 **Study of the Effect pf Dietary Zinc Restriction and Supplementation on Pain and Inflammation Induced by CFA in Mice.** Silva MC[1], Mathias DO[2], Lima LMTR [1], Miranda ALP[1]. [1]UFRJ [2]Fiocruz

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05. Pain and Nociception Pharmacology

05.017 **Multimodal Analgesia with Transdermal Buprenorphine Produces Efficacious and Safe Antinociception in Burned Mice.** Hoepers JVA, Godoi MM, Ferreira J. UFSC, Dpt of Pharmacology

05.018 **Repetitive Treatment Using Apitoxin or Melittin Applied on Acupoint Promote Delay on Pain Onset in Neuropathic Pain Model.** Boaventura de Oliveira AM[1], Leonor MGR[1], Almeida TC[1], Silva DF[1], Sant'anna MB[1], Marques-Porto R[2], Silva GSA[1], Picolo G[1]. [1]Butantan Institute, Lab Pain and Signaling; [2]Butantan Institute, Lab Development and Innovation

05.020 **TRPA1 Channel Sensitization via Kinin B2 Receptor Contributes to Cisplatin-Induced Painful Neuropathy in Mice.** Serafini PT, Becker G, Brum ES, Fialho MFP, Marchesan SO UFSM, Dpt Biochemistry and Biological Molecular

05.021 **Paracetamol has greater potential than dipyrone to induced sensitization in a preclinical model of medication overuse headache.**
Spagnol FJ[1], Zortea JM[1], Baggio DF[1], da Luz FMR[1], Kopruszinski CM[2], Chichorro JG[1]. [1]UFPR, Dpt of Pharmacology; 2 Dept of Pharmacology, College of Medicine, University of Arizona, Tucson, AZ, USA

05.024 **Low Doses of Naltrexone (LDN) Reverses Mechanical Allodynia and Repetitive Transcranial Magnetic Stimulation (rTMS) Increases Grooming Behavior in CFA-Induced Temporomandibular Disorder (TMD) Rats Model.** Vargas JLS[1,2], Marini LL[1,2], Stein DJ[2,3], Fiuza KJ[2], Braga HB[2], Farias VEF[2], Dal-Bosco T[2,3], Morais ITDS[1,2], Torres ILS[1,2,3] and Medeiros LF[1,2,4] [1]UFRGS, PPGFT, [2]HCPA, Pharmacology of Pain and Neuromodulation Lab, [3]UFRGS, PPGCM, [4]La Salle, Dept. Health and Human Development

05.025 **Characterization of the Antinociceptive Effect of Oxyuranus scutellatus Snake Venom.** Corrêa RCD[1,2], Camilo MEP[1], Spencer P[3], Chacur M[4], Giorgi R[1] [1]Butantan Institute, Lab Pathophysiology, [2]Butantan Institute, Postgraduate Program in Toxinology; [3]Nuclear and Energy Research Institute; [4]ICB-USP, Dept of Anatomy

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05. Pain and Nociception Pharmacology

05.045 **TRPM3: the Sensory Neuron Channel Driving Osteoarthritis Pain in Mice.** Costa R[1,2], Gentry C[1], Dias FC[1,2], Pereira S[2], Maurer M[1], Primicheru LI[1], Mannebach S[3], Weissgerber P[3], Freichel M[4,5], Philipp SE[3], Andersson D[1], Bevan SJ[1] [1]King's College London, Wolfson SPaRC, London, UK; [2]UFRJ, School of Pharmacy; [3]Saarland University, Experimental and Clinical Pharmacology and Toxicology, Center for Molecular Signaling (PZMS), Homburg, Germany; [4]Ruprecht-Karls-University, Pharmacological Institute, Heidelberg, Germany; [5]German Centre for Cardiovascular Research, Heidelberg, Germany

05.046 **Exploring the Role of Endogenous Hydrogen Sulfide in Surgical Pain Recovery.** Dallazen JL[1], Santos LG[1], Teixeira SA[1], De Nucci[1,2], Muscará MN[1], Costa SKP[1] [1]ICB-USP, Dept of Pharmacology, [2]FCM-Unicamp, Dept of Pharmacology

05.047 **Impaired Mitochondrial Dynamics Underlies Paclitaxel-Induced Axonal Degeneration.** Hösch, NG, Martins, BB, Zambelli, VO [1]Butantan Institute, Lab Pain and Intracellular Signaling

05.049 **Gamma-Linolenic Acid Interacts with Human Voltage-Gated Calcium Channel: Aspects in the Treatment of Mastalgia.** Silva JLV [1], Silva Junior GJ[1], Arruda GEJ[1], Aguiar ACO[1], Gondim LCS[1], Melo LR[2]. [1]FMO; [2]UFPB, University Hospital

05.050 **Isopulegol Attenuates Neuropathic Pain by Involving GABA Pathway, TRPV1 and NMDA Receptors.** Martins DFA[1], Acha BT1, Cavalcante MLS1, Soares PLO1, Passos DO1, Morais CVV1, Pereira SAP1, Pinheiro-Neto FR1, Oliveira GLS2, Dittz Jr D1, Almeida FRC1. [1]NPPM-UFPI, PPG Pharmacology, [2]IFMT, Reference Center of Jaciara

05.051 **Sex-Dependent Antinociceptive and Anxiolytic Effects of Cannabigerol in Diabetic Rats.** Ferreira MV, Miranda JM[1], Rauchbach L[1], Wolaniuk LP[1], Demeu TA[1] Crippa JA[2], Zanoveli JM[1], Cunha JM[1] [1]UFPR, Dept of Pharmacology; [2]FMRP-USP

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06. Cardiovascular and Renal Pharmacology

06.001 **Morphofunctional Studies of the Heart After *in vivo* Exposure to the Pesticide Chlorpyrifos: Evidences of Cardiotoxicity.** Ito AN, Teixeira-Fonseca JL, Silva PL, Campos DR Unifesp-EPM, Dpt of Biophysics, Cardiobiology Lab

06.002 **Antiurolithic activity of *Calophyllum brasiliense in vitro*** Souza ML, Costa GV, Gerhardt GM, Klein-Júnior LC, Cechinel Filho V, Souza P, Boeing T [1]Univali, Pharmaceutical Sciences Graduate Program

06.003 **Fixed-Volume and Pressure Hemorrhagic Shock in C57BL/6 Mice.** Simas A, Mariot LN, Sordi R UFSC, Dept of Pharmacology, PPG in Pharmacology,

06.005 **Icilin Induces Relaxation in Pudendal Arteries from Diabetic Mice through a TRPM8-Independent Mechanism.** Machado GI[1], Moraes RA[2,3], Araujo FA[2,3], Passos Junior RR[3], Arishe O[3], Wilczynski S[3], McCarthy C[3], Priviero FBM[3], Webb RC[3], Silva DF[1,2] [1]UFBA, Health Science Institute; [2]Fiocruz, Gonçalo Moniz Institute; [3]University of South Carolina, Cardiovascular Translational Research Center, School of Medicine

06.012 **Hypercholesterolemia-induced nrf2 pathway disbalance in early stages of atherosclerosis development is reversed by inosine.** Stein AT[1], Lima GF[1], Brazão SC[1], Alves DS[1], Antonucci GM[1], Mendes ABA[1], Pereira NCA[1], [1]Bragança LAR, [1]Freitas CO, [1]Souza ARS, [2]Diniz LG, [2-3]Alexandre-Santos B, [2]Magliano DC, Motta NAV[1], Brito FCF[1] [1] UFF, Dpto de Fisiologia e Farmacologia, Lab de Farmacologia Experimental, [2]UFF, Dpto de Morfologia, Núcleo de Pesquisa em Morfologia e Metabolismo, [3]UFF, Dpto de Fisiologia e Farmacologia, Lab de Ciências do Exercício

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06. Cardiovascular and Renal Pharmacology

06.016 **Time Course of Inflammatory Cell Infiltration and Oxidative Stress Promoted by Arthritis in Rat Adipose Tissues.** Nascimento IFS[1], Ferreira EVA[1], Spadella MA[2], Dourado TMH[3], Tirapelli CR[3], Chies AB[1] [1]FAMEMA, Lab de Farmacologia; [2]FAMEMA, Lab de Embriologia Humana, Brasil; [3]EERP-USP, Lab de Farmacologia Cardiovascular, Brasil

06.017 **Agonist of Cannabinoid Receptor Type 2 Reduces the Inflammatory Process and Increases Survival in Experimental Sepsis.** Borges LB, Oliveira FRMB, Silva PCS, Patrício DO, Mansur DS, Sordi R UFSC, PPG in Pharmacology

06.021 **Tempol Decreases Protein S-Nitrosylation in Septic Shock.** Moreira DH, Pinheiro LC UFSC Florianópolis, Dpt of Pharmacology.

14. Pharmacology: Other

14.001 **Metabolomic Investigation of Treatment-Resistant Depression: Uncovering Altered Pathways.** Mezzomo G[1,2], Schons T, da Rosa PH[1,2], Rocha G[1], Ziani PR[1], Pedroso LS[1], Pulcinelli RR [1,2], Rosa AR[1,2,3] [1]HCPA, Lab Molecular Psychiatry, [2]UFRGS, Postgraduate Program in Biological Sciences: Pharmacology and Therapeutics, [3]UFRGS, Dept of Pharmacology

14.002 **Thromboxane A2 Receptor (TP) Antagonism Improves Glucose Homeostasis and Lipid Profile in Obese Mice.** Araújo RB[1], Cruz AP[1], Gonçalves TT[1], Salerno G[1], Leiria LO[2] [1]FMRP/USP, Lab Research in Metabolic Diseases, Pharmacology Dept, [2]FMRP-USP Lab Research in Metabolic Diseases, Pharmacology Dept

14.003 **Frequency of Depression, Anxiety and Stress Symptoms and the Use of Antidepressants Among University Students.** Albuquerque IC, Berro LF, Rubio DAV, Santos LAFV, Pesarico AP, Piccoli JCE Unipampa, PPG Biochemistry.

14.004 **Endothelium-dependent Vasorelaxation of Hesperetin on Aorta from Normotensive and Hypertensive Rats.** Bidinha E, Silva RCV, Zanovello M, Moser JC., Cavichiolo MO, Cechinel Filho V, Souza P Univali Postgraduate Program in Pharmaceutical Sciences,

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06. Cardiovascular and Renal Pharmacology

06.026 **Effects of Beta-Caryophyllene on Cardiovascular and Renal Changes in Sepsis.** Mariot LN[1], Queiroz LY[1], Delfrate G[1], Oliveira, FRMB[1], Alves GF[2], Simas A[1], Oliveira MKS[1], Nardi GM[1], Sordi R[1] [1]UFSC, PPG in Pharmacology. [2] UniTO, PPG in Pharmaceutical and Biomolecular Sciences.

06.027 **Determination of the NO Observed Adverse Effect Level of the Pesticide Tebuconazole: A Closer Evaluation of the Heart Structure and Function.** Silva PL, Teixeira-Fonseca JL, Orts y Belato DJ, Conceição MRL, Roman-Campos D Unifesp-EPM, PPG in Pharmacology, Dpt of Biophysics

06.028 **Targeting Phosphodiesterase 5 Inhibition in Cardiovascular Dysfunction of Sepsis Survivors.** Delfrate G, Neves PG, Assreuy J, Fernandes D. UFSC Dept of Pharmacology.

06.030 **AP39, a Mitochondria-Targeted Hydrogen Sulfide (H_2S) Donor, Induces Endothelial Cell Proliferation and Migration Via Mitochondrial Mechanisms.** Marques LAC[1], Veiga, SMM[1], Silva, LM[2], Câmara, NOS[2], Costa, SKP[1], Muscará, MN[1]. [1]ICB-USP, Dept of Pharmacology, [2]ICB-USP, Dept of Immunology

06.031 **Treatment with Panax Ginseng and Angelica Keiskei Potentiates the Hypotensive Effect Induced by Red Laser in Spontaneously Hypertensive Rats.** De Araújo CM, Da Costa JLF, Dias PC, Rodrigues GJ. UFSCar, Depto de Ciências Fisiológicas

06.035 **Neprilysin Levels in Plasma and Aorta Tissue: Insights into Human Abdominal Aortic Aneurysm Pathophysiology.** Dugaich VF[1], Mestriner F[1], Dantas PB[1] Joviliano EE[1], Ribeiro M[1], Becari C[1] [2] [1]FMRP-USP, Vascular Disease Lab, Dept of Surgery and Anatomy, [2]FOB-USP, Dept of Biological Science,

06.045 **Investigation of Possible Therapeutic Use of Nitrite in Preeclampsia.** Zampieri GM, Nunes PR, Bueno-Pereira TO, Sandrim VC Unesp, Dept of Biophysics and Pharmacology,

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07. Endocrine, Reproductive and Urinary Pharmacology

07.001 *In vitro* **Study on the Antiurolytic Properties of Polyphenolic Compounds Derived from Citrus Fruits.** Fagundes NC, Silva RCV, Cechinel Filho V, Souza P Univali, Pharmacy, Postgraduate program in Pharmaceutical Sciences.

07.002 **The Role of Pre-Synaptic 1-Adrenoceptors in Rat Isolated Epididymal Vas Deferens Contractility.** Campitelli RR[1], Britto-Júnior J[1], Lima AT[1], Fregonesi A[2,3], Antunes E[1], De Nucci G[1,4,5] [1]FCM-Unicamp, Dept of Pharmacology, [2]FCM-Unicamp, Dept of Urology, [3]FMJ, Dept of Surgery, [4]ICB-USP Dept of Pharmacology, [5]Universidade do Brasil, Faculty of Medical Sciences

07.003 **Organizational Effects of Sex Steroids on Non-motor Symptoms of Parkinson?s Disease in Wistar Rats.** Zanotti VA[1], Baptista G[2], Gregorio T[1], Silva LCS[1], Piana EDM[1], Caverzan S[1], Cruz MPM[1], Prediger, RDS[2], Lima FB[1] [2] [1]UFSC Dpt of Physiological Sciences; [2]UFSC, The Graduate Program of Pharmacology

07.004 **Protective Effects of Morosil® [*Citrus sinensis* (L.) Osbeck var. Moro] on the Reproductive System of Rats Treated with High Fat Diet.** Rosa GA, Lima GF, Brazão SC, Mendes ABA, Bragança LAR, Ribas JAS, Santos CM, Brito FCF, Marostica E. UFF, PPG Ciências Biomédicas, Dep. Physiology and Pharmacology

07.005 **Therapeutic Potential of Clarified Açaí (*Euterpe oleracea* Martius) Supplementation on Cardiometabolic Disorders in Mice with Induced Menopause: A Preclinical Study.** Moraes RP[1], Bittencourt LO[1], Rodrigues RAR[1], Rogez H[2], Lima RR[1] [1]UFPA, Lab Functional and Structural Biology, Institute of Biological, [2]UFPA, Center for Valorization of Amazonian Bioactive Compounds, College of Biotechnology

10. Cancer Pharmacology

10.001 **Evaluation of the Cytotoxicity and Molecular Effects of Theranostic Nanosystems in 3D Breast Cancer Cell Model.** Melo GB[1], Kawassaki RK[12], Garnique ADMB[1], Guimarães RR[2], Araki K[2], Lopes LB[1] [1]ICB USP, Dpt of Pharmacology [2]IQ USP, Dpt of Fundamental Chemistry

10.002 **Effects of Polymer Type on the Properties and Cytotoxicity of Nanoparticles for Seriniquinone Delivery.** Maia RA[1], Miguel RA[1] [2], Fenical W[3], La Clair JJ[4], Costa-Lotufo LV[1,2], Lopes LB[1] [1]USP São Paulo, Dpt of Pharmacolgy; [2]University of Cape Town, Dpt of Human Biology, [3]University of California at San Diego, Center for Marine Biotechnology and Biomedicine; [4]University of California at San Diego, Dpt of Chemistry and Biochemistry, USA.

10.003 *In vitro* **Effect of Sodium Selenite on Neuroblastoma Cells.** Kondo TA[1], Ribeiro MM[2], Costa NS[2], Oliveira CS[2], Garlet QI[1] [1]UFPR, PPG Pharmacology. [2]IPPPP

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07. Endocrine, Reproductive and Urinary Pharmacology

07.014 **Neonatal Exposure to Testosterone Leads to Neurodevelopmental Impairment Associated with Depressive-like Behaviors in Adult Female Wistar Rats.** Silva LCS[1], Gregorio T[1] , Zanotti VA[1], Caverzan S[1], Baptista G[2], Piana EDM[1], Cruz MPM[1], Lima FB[1] [1]UFSC, Dpt of Physiological Sciences, [2]UFSC, Dpt of Pharmacology;

07.015 **Impact of Endogenous and Exogenous Hydrogen Sulfide (H_2S) on Interstitial Cystitis/Bladder Pain Syndrome.** Santos LG[1], Dallazen JL[1], Teixeira SA[1], de Oliveira MG[2], Whiteman M[3], Muscará MN[1], Mónica FT[2], Antunes E[2], Costa SKP[1] [1]ICB-USP, Dept of Pharmacology; [2]Unicamp, Dept of Pharmacology; [3]University of Exeter, England

07.016 **6-Nitrodopamine is a Major Mediation that Potentiates Contractions of Human Isolated Epididymal Vas Deferens Induced by Noradrenaline and Electric Field Stimulation.** Lima AT[1], Jabbour S[2], Britto-Júnior J[1], Antunes E[1], Fregonesi A[2], De Nucci G[1] [1]Unicamp ·Dept of Pharmacology, Faculty of Medical Sciences; 2FMJ, Dept of Surgery

07.017 **Basal Release of 6-Nitrodopamine from NOS Knockout Mice Isolated Vas Deferens.** Quirino-Jr G[1], Britto-Jr J[1], Mendes G[2], Chiavegatto S[3], Antunes,E[1], De Nucci G[123]. [1]Unicamp, Dpt of Pharmacology; [2]FSLM, Dpt of Pharmacology; [3]ICB-USP, Dpt of Pharmacology.

08. Respiratory and Gastrointestinal Pharmacology

08.010 **Interaction Between Bradykinin Receptors and TRPV1 in LPS-Induced Acute Respiratory Distress Syndrome in Mice.** Amorim MA[1], Oliveira VHS[1], Calixto JB[2], André E[1]. [1]UFPR Curitiba, Dpt of Pharmacology; [2]Centro de Inovação e Ensaios Pré-Clínicos-CIEnP, Florianópolis.

08.011 **Pharmacological Mechanism Gastroprotective and Gastric Healing from *Fridericia chica*: A Medicinal Plant used in the Amazon Region.** Miorando D[1], Steffler AM[1], Simomura VL[1], Veloso JJ[1], Buzatto MV[1], Venzon L[2], Silva TFQ[2], Somensi LB[3], Silva LM[4], das Neves GM[5], Barros H[5], Eifler-Lima VL[5], Roman Junior WA[1] [1]Unochapecó, Lab Pharmacognosy, [2]Univali, Postgraduate Program in Pharmaceutical Sciences, [3]UNIARP, Postgraduate Program in Development and

Society, [4]UFSC, Lab GIT Pharmacology and Interactions, [5]UFRGS, Medicinal Organic Synthesis Lab

08.012 **Functional Profile of the Gastrointestinal System of Healthy Mice: Evidence of Sex-Related Augmented Contractile Activity in the Intestine of Females.** Moura S, da Silva-Santos JE UFSC, Lab Cardiovascular and Smooth Muscle Biology, Dept of Pharmacology

08.013 **Lemon Gum from Citrus x latifolia Blankets Esophageal Mucosa and Promotes Protective Effects in Experimental Models of GERD.** Teixeira LFLS[1], Silva KC[1], Gomes IAB[1], Oliveira AP[1], Lopes ALF[1], Castro AV[1], Franco AX[2], Souza MHLP[2], Ribeiro FOS[3], Palumbo-Junior A[4], Freitas RA[5], Cordeiro LM[6], Silva DA[1], Medeiros JVR[1], Nicolau LAD[1] [1]UFDPar, Lab of Inflammation and Translational Gastroenterology; [2]UFC, Dept of Physiology and Pharmacology; [3]UnB, Center for Research in Applied Morphology and Immunology, University of Brasilia; [4]UFRJ, Lab Cellular Interactions, Institute of Biomedical Sciences; [5]UFPR, UniversidBioPol, Chemistry Dept; [6]UFPR, Dept of Biochemistry and Molecular Biology

08.014 **VPA-Induced Autism Model is Accompanied by Intestinal Damage Driving Changes in Gut Permeability in a Sex-Dependently Way in Rats.** Longo B[1], Nunes RKS[2], Cazarin CA[2], Silva TFQ[2], Dos Santos AC[2], Venzon L[2], Da Silva LM[2], Costa RA[3], Stern CAJ[3], Zampronio AR[3], De Souza MM[2], Da Silva LM[1]. [1]UFSC, Dpt of Pharmacology, [2]Univali, Postgraduate in Pharmaceutical Sciences, [3]UFPR, Dpt of Pharmacology

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09. Natural Products and Toxinology

09.001 **Synthesis and Characterization of Thiolated Cashew Gum (*Anacardium occidentale* L.), a Tailored Macromolecule for Gastroesophageal Reflux Disease Management.** Araruna LP[1], Silva KC[1], Sousa GC[2], Krüger YS[1], Oliveira ACP[2], Castro AV[2], Teixeira LFLS[2], Ribeiro FOS, Garcia RRP[5], Souza MHLP[3], Freitas RA[6], Gois MB[7], Silva DA[2], Medeiros JVR[1], Nicolau LAD[2] [1]UFDPar, Dpto de Medicina, [2]UFDPar, PPG de Biomedicina, [3]UFC, Dpto de Medicina Clínica, 4 UnB, PPG Ciências Médicas, [5]UFRPE, Dpto de Pesquisa e Caracterização de Materiais, [6]UFPR, Dpto de Farmácia, [7]UFR, PPG Biociências e Saúde

09.002 **Essential Oil of *Syzygium aromaticum* for use in the Inhibition of *Salmonella typh*i and *Pseudomonas aeruginosa*.** Laurentino GS[1], Zortea AVL[1], Mendes CR[2], Dilarri G[3]4. [1]UDESC; [2]Unesp, Rio Claro, SP; [3]UDESC; [4]UDESC, Multicentric Graduate Program in Biochemistry and Molecular Biology

09.004 **Exploring the Link Between Venom Procoagulant Activity and Tail Coloration in Bothrops Snakes: A Comparative Study.** Carneiro IB[1], Garcia LNV[1], Galizio NC[1], Sousa EP[1], Farias MAR[1], Felipe AGC[1], Silveira GPM[2], Sant'Anna SS[2], Zani KM[1,2] [1]Instituto Butantan, Lab de Fisiopatologia, [2]Instituto Butantan Lab de Herpetologia,

09.006 **Lavicidal Activity of Terpenes and its Derivatives Against *Aedes aegypti*: A Systematic Review and Meta-Analysis.** Santos BO[1], Teles ACA[2,4], Santana EC[1,3], Durço AO[1,6], Conceição LSR[1,4], Roman-Campos D[6], Cavalcanti SCH[5], Araujo AAS[2,5], Santos MRV[1,3] [1]Depto de Fisiologia, [2]Programa de Pós-Graduação em Ciências da Saúde, [3]Biotecnologia - RENORBIO; [4]Depto de Educação em Saúde; [5]UFS, Depto de Farmácia, [6]Unifesp, Depto de Biofísica

09.007 **Chromatographic Profile and *in vitro* Antiurolytic Activity of the Extract and Tannin-free Fraction from *Phyllanthus tenellus*.** Zolett G, Pereira LN, Voltolini AT, Silva RCMVA, Souza P, Funez LA, Cechinel-FIlho V, Klein-Junior LC Univali, Pharmaceutical Sciences, School of Health Sciences, Herbário Barbosa Rodrigues

09.008 **Effects of ASE and Physical Exercise on Hepatic Histological Changes induced by Chronic Ingestion of a High-Fat Diet in Sprague-Dawley Rats.** Gouveia JF[1], Beserra-Silva DL[1], de Oliveira BC[1], Soares RA[1], de Menezes MP[1], Cavalheira MA[1], da Silva EM[1], Nascimento ALR[2], de Carvalho JJ[2], Ognibene DT[1], da Costa CA[1], de Bem GF[1], Resende AC[1]. [1]UERJ, Dpt of Pharmacology; [2]UERJ, Dpt of Histology

09.009 **Marimastat, a Broad-Spectrum Metalloprotease Inhibitor, as an useful Pharmacological Strategy to prevent Haemostatic Disorders by *Bothrops alternatus* (Brazilian Lancehead Snake) Venom.** Oliveira IN[1], Souza-Gomes GC[1], Proença-Hirata VS[1], Dias SR[1], Ghirotti HA[1], Azevedo SNS[1], Demico PJ[1], Torres-Bonilla KA[2], Hyslop S[2], Sant'Anna SS[3], Morais-Zani K[3], Giuffrida R[1], Floriano RS[1]. [1]UNOESTE, Lab Toxinology and Cardiovascular Research; [2]FCM-Unicamp, Dept of Translational Medicine, Faculty of Medical Sciences; [3]IBu, Lab Herpetology

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09. Natural Products and Toxinology

09.029 **Anxiolytic-Like Property of Essential Oil from *Murraya koenigii* (L.) Spreng. (Rutaceae).** Ogbu JI, Lima Moreira CV, Rosa TM, Romano CA, Paula JR, Fajemiroye JO UFG, Dpt of Pharmacology, PPG Pharmaceutical Sciences

09.030 ***Fridericia chica* a Medicinal Plant used in the Amazon Region: Potential Larvicidal and Repellent against *Aedes aegypti*.** Maccagnan JC, Miorando D, Monteiro M, Dalla Vecchia CA, Busato MA, Roman-Junior WA Unochapecó, Postgraduate Program in Health Sciences

09.031 *Achyrocline satureioides* **Aqueous Extract Activates DAF-16/SKN-1 Pathways in *Caenorhabditis elegans*: Implications for Human FOXO/Nrf2 Homologue.** Santos PA, Lobo LAC, Varriento GO, Bielavski JB, Siqueira IR, Pereira P UFRGS, Dpt. of Pharmacology, PPG Biological Sciences: Pharmacology and Therapeutics.

09.032 **Prolonged Diuretic Effect of *Tagetes erecta* in Normotensive and Hypertensive Rats.** Zanovello M, Silva RCV, Dada A, Orengo SLD, Bidinha EleineR, Klein Junior LC, Souza P Univali, PPG Pharmaceutical Sciences

09.034 **Curcumin-Loaded Nanocapsules: Evaluating Survival and Plasma Exposure in Fly and Rodent Models Using Time-to-Event and Population Pharmacokinetics Approaches.** Funguetto-Ribeiro AC[1], Pacheco C[1], Ferreira J[1], Boivin-Champeaux C[2], Fernandes E[1], Guerra G[1], Azeredo F[2], Haas SE[1] [1]Unipampa, Pharmacology and Pharmacometric Lab, LABFAR, [2]University of Florida, Center for Pharmacometrics and Systems Pharmacology

09.035 **The Gastroprotective Effect of the Aqueous Extract of the Aerial Parts of *Mesosphaerum pectinatum* (L.) Kuntze Involves Non-Protein Sulfhydryl Compounds and Prostaglandins.** Ramos LS, Biano LS, Souza DA, Araújo JMD, Nunes ERS, Brito SC, Palmeira DN, Batista TSC, Grespan R, Camargo EA UFS-São Cristóvão-SE.

09.036 **The Effects of Preemptive Apigenin Administration on the Onset of Obesity in Middle-Aged Rats: Preliminary Data.** Castro JM[1,2], Melo AS[2], Gomez VB[2], Martins IAS[2], Silveira BL[2], Stieven A[1,2], Marçal MM[2], Collioni T[2], Stein DJ[2], Torres ILS[2] [1]UFRGS, Programa de Pós-graduação em Medicina: Ciências Médicas; [2]HCPA, Lab de Farmacologia da Dor e Neuromodulação: Investigações pré-clínicas, Centro de Pesquisa Experimental

09.037 **Pharmacokinetics Studies in Rats of Brazilian Red Propolis and Isolated Benzophenones Using LC-MS/MS.** Tanimoto MH[1], Miranda AM[1], Aldana-Mejía JA[1], Pinheiro AMF[1], Pereira MPM[2],

Rocha A[2], Ximenez JPB[2], Lanchote VL[2], Bastos JK[1]. [1]FCFRP-USP, Dpt of Pharmaceutical Sciences - PPG Pharmaceutical Sciences; [2]FCFRP-USP, Dpt of Clinical Analyses, Toxicology and Food Science

09.044 **Pilot study to Verify the Antimicrobial Activity of Yerba Mate Extract against ATCC Strains of Enterococcus spp. and Streptococcus spp.** Fernando SDS[1], Isabela LFC[1], Daniel RS[1], Renan CR[1], Augusto PL[1], Crisleine M[1], Marcelly FZ[1], Helena CK[1], Luana MF[2], Jessica BR[1], Juliana SB[1]. [1]Unicentro), [2]UFPR

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10. Cancer Pharmacology

10.005 **Cellular Delivery of Plasmid DNA by Antibody-Conjugated Lipid Nanoparticle for Cancer Gene Therapy.** Herrmann A[1], Sanches MP[2], De Athayde AE[2], Dos Santos B[1], Rissi IA[1], Agnes JP[1], Vieira JVS[2], Lemos-Senna EMT[2], Zanotto-Filho A[1]. [1]UFSC, Dpt of Pharmacology, Cancer Pharmacology and Biochemistry Lab, [2]UFSC, Dpt of Pharmaceutical Sciences, Center of Health Sciences

10.006 **Protein Disulfide Isomerase A1: A Novel Therapeutic Target in Melanoma Resistance and Progression.** Da Mota AN, Beyerstedt S, Franco M, Machado-Neto JA, Lopes LR ICB-USP, Dept. of Pharmacology

10.008 **Antineoplastic Effect of Green Sweet Pepper Polysaccharides in Melanoma Models.** Carvalho JH, Vilani JM, Radulski DR, Biscaia SMP, Acco A UFPR, Dpt of Pharmacology

10.009 **Combined Treatment Between a Natural Compound Diaporthein B with SN38 or 5-FU Used on Treatment of Colorectal Carcinoma Cell Line.** Domingos HV[1], LV, Peña-Hidalgo M[2], Ferreira MJP[2], Costa-Lotufo LV[1] [1]ICB-USP Dept of Pharmacology [2]IB-USP Dept of Botany

10.010 **Application of Rational Design for Targeting Antitumor Potential Marine Molecules.** Soeiro JEM, Silva JYG, Brito TL, Pinto FCL, Pessoa ODL, Souza PFN, Wilke DV UFC

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10. Cancer Pharmacology

10.015 **A Low Anticoagulant Heparin acts as a Multitarget Drug Against Metastatic Progression.** Roberto-Fernandes C[1], Motta JM[1], Lima AGF[1], Micheli KVA[1], Vardiero F[2], Morandi V[2], Mourão PAS[1], Pereira MS[1]. [1]UFRJ, Leopoldo de Meis Institute of Medical Biochemistry; [2]UERJ, Dpt of Cell Biology, Roberto Alcântara Gomes Institute of Biology.

10.016 **Exploring the Impact of Inhibitor of Apoptosis PROTEINS (IAPs) on melanoma: a Multi-Faceted Approach.** Reis-Silva CSM, Machado-Neto JA, Costa-Lotufo LV ICB-USP

10.017 **Unveiling Seriniquinone Mechanisms: A Promising Strategy for Treatment of Chemoresistant Melanoma.** Hirata AS[1], Carvalho LAC[2], Kinker GS[3], Rezende-Teixeira P[1], Machado-Neto JA[1], Jimenez PC4, Santelli GMM[1], La Clair JJ[5], Maria-Engler SS[2], Fenical W[6], Costa-Lotufo LV[1] [1]ICB-USP; [2]FCF-USP; [3]A. C. Camargo Cancer Center; [4]Unifesp, Institute of Marine Science; [5]University of California, Dpt of Chemistry and Biochemistry; [6]University of California, Scripps Institution of Oceanography

10.018 *In vitro* **and** *in vivo* **effects of MI-D in the Triple-Negative Breast Cancer Model 4T1.** Naidek AF[1], Rodrigues ML[2], Oliveira KM[1], Panini G[1], Echevarria A [3], Cadena SSC[2], Acco A[1] [1]UFPR, Dept of Pharmacology, [2]UFPR, Dept of Biochemistry and Molecular Biology, [3]UFRRJ, Dept of Chemistry

10.019 *In vitro* and *in vivo* **Effects of Kinin Receptor Antagonists in Head and Neck Squamous Cell Carcinoma.** Neculqueo GW[1], Estrázulas M[1], Soares J[2], Campos MM[1] [1]PUCRS, PPG Medicine and Health Sciences; [2]PUCRS, Toxicology and Pharmacology Institute.

10.020 **PI3Kγ Inhibition induces Tumor Immunogenicity in Chronic Myeloid Leukemia Cells.** Nogueira CN[1], Brito TL[1], Garnique AB[2], Ghigo A[3], Machado JA[2], Wilke DV[1]. [1]UFC, Drug Research and Development Center, Dept of Physiology and Pharmacology, School of Medicine, [2]ICB-USP, Dept of Pharmacology, [3]Università degli Studi di Torino, Dept of Molecular Biotechnology and Health Sciences

10.021 **Bioorthogonal Catalysis of 5-Fluorouracil Prodrugs in Tumor Cells.** Agnes JP[1], Ferreira TM[1], Albuquerque FCBL[1], Najera CDN[2], Oliveira DC[3], Zanotto-Filho A[4], Jiménez-Osés G[2,5], Domingos JB[1] [1]UFSC, Lab Biomimetic Catalysis, Dept of Chemistry, [2]Basque Research and Technology Alliance Center for Cooperative Research in Biosciences, Bizkaia Technology Park, [3]Brazilian Synchrotron Light Lab, [4]UFSC, Lab Cancer Pharmacology, Dept of Pharmacology, [5] Basque Foundation for Science

10.022 **The Role of CYP1B1 and CYP2B6 Enzymes in Breast Cancer Patients: Correlation with Tumor Aggressiveness and Treatment Outcomes.** Stipp MC[1], Nardin JM[2],Casali-da-Rocha JC[3], Ioshii S[4], Acco A[1]. [1]UFPR, Dept of Pharmacology; [2]PUCPR, Medical and Life Science School; [3]AC Camargo Cancer Center, São Paulo, SP, [4]Erasto Gaertner Hospital

10.023 **Molecular Insights into Cephalochromin's Effects on Acute Lymphoblastic Leukemia Cells.** Serra CSM[1], Lima GC[1], Vicari HP[1], Lima K[2], Nascimento MC[2], Rego EM[2], Ferreira MJP[3], Costa-Lotufo LV[1], Machado-Neto JA [1] [1]ICB-USP, Dept of Pharmacology; [2]FM-USP, Dept of Internal Medicine, Hematology Division; [3]IB-USP, Dept of Botany

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11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology

11.011 **The Pyrethroid metabolite 3-Phenoxybenzoic Acid (3-PBA) has Chronotropic and Ionotropic Effect on Isolated Atrial Tissue: Possible Involvement of Nav1.5** da Costa JNA[1], Marques LP[1], Lima MRC[1], Souza DS[2], Alcântara FS[1], Fonseca JLT[1], Orts DJB[1], Roman-Campos D[1] [1]Unifesp-EPM, Cardiobiology Lab, Biophysics Dept; [2]UFS

11.012 **Hepatic Proteome Profiling Reveals Cadmium-Induced Alterations in Energy Production and Protein Degradation Pathways in Catfish.** Da Silva ACF[1], Pereira LS[2], Brant RSC[3], Vicentini M[3], Silva de Assis HC[1] [1]UFPR, Dpt of Pharmacology; [2]University of Würzburg, Dpt of Cell and Developmental Biology, Germany; [3]FIOCRUZ

11.013 **Evaluation of Exposure to Aluminium on Behavioral Parameters in Mice.** Ferreira PYO, Sabóia ABM, Uchenna N, Campos HM, Costa EA, Ghedini PC UFG, Dept of Pharmacology

11.014 **Comparison of PopPK Models for Cyclosporine in Pediatrics.** Porto GO, Olivo LB, Dias BB, Araujo BV UFRGS, Pharmacokinetics and PK/PD Modeling Lab, Pharmaceutical Sciences Graduate Program

11.015 **Liposomal Nanoencapsulation, Cytotoxic and Pharmacokinetic Profile of a Promising Anticancer Agent.** Viana MR[1], Guimarães CJ[1,2], Bastos RS[3], Barros-Nepomuceno FWA[4], Lima ML[5], Pessoa C [1]NPDM-UFC, Experimental Oncology Lab; [2]FCECON; [3]UNINASSAU; 4UNILAB; [5]UFRJ

11.016 *Monteverdia Ilicifolia* **as a Management Strategy for Dyspepsia in Gastroesophageal Reflux Disease: Clinical Outcomes.** Silva MS[1], Bueno JM[2], Schunck RVA[2], Nobre EM[2], Corssac GB[1,2], Meirelles G[2,3], Bianchi SE[2,3], Bassani V[3,4], Gonçalves MR[5], Dani C[1,2], Siqueira IR[1,2] [1]UFRGS, Programa de Pós Graduação em Ciências Biológicas: Farmacologia e Terapêutica; [2]UFRGS, Depto de Farmacologia, Instituto de Ciências Básicas da Saúde, [3]UFRGS, Lab de Desenvolvimento Galênico, Faculdade de Farmácia, [4]Programa de Pós-Graduação em Ciências Farmacêuticas, [5]UFRGS, Depto de Medicina Social, Faculdade de Medicina

12. Drug Discovery and Development

12.007 **Breaking Barriers: Nanocarriers as Enabling Tools for Solubility Enhancement and Topical Administration of Seriniquinone for Melanoma Treatment.** Miguel RA[1], Nascimento GMA[1], Hirata AS[1], Martins TS[2], Costa-Lotufo LV[1], Lopes LB[1] [1]USP, Dpt of Pharmacology; [2]Unifesp, Dpt of Chemistry.

12.008 **Proving Ranelate Modified Gold Nanoparticles Safety Through Diapedesis Integrity.** Carvalho DR[1], Franciscato DS[2], Toma HE[1], Rodrigues SF[1] [1]ICB-USP, Vascular Nanopharmacology Lab, Dept of Pharmacology, [2]IQ-USP, Supramolecular Chemistry and Nanotechnology Lab

12.009 **Toxicological and Antioxidant Evaluation of Gamma-Decanolactone: Study** *in silico* **and** *in vivo* **in the** *Caenorhabditis elegans* **model.** Mendes TL[1], Santos PA[1] [2], Campos GM[1], Uczay M[1] [2], Pflüger PF[2], Fontenla JA[2], Pereira P[1] [2] [1]UFRGS, Dpt. of Pharmacology, PPG Biological sciences: Pharmacology and Therapeutics, [2]University of Santiago de Compostela, Dept. Pharmacology and pharmaceutical technology, Medicine Research and Development Program, Spain.

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12. Drug Discovery and Development

12.010 **Evaluation of the Effects of Nanostructured Lipid Carriers on 2D and 3D Breast Cancer Models.** Malagó ID[1], Machado-Neto JA[1], Lopes LB[1]. [1]ICB-USP, Dpt of Pharmacology.

12.011 **Preclinical Pharmacokinetic Modeling of JMXiBn, an Inhaled Investigational Compound to Treat Glucocorticoid-Insensitive Asthma.** Dias BB[1], Santos GCM[2], Dalla Costa T[1], Martins MA[2]. [1]UFRGS, Pharmacokinetic and PK/PD Lab; [2]IOC/Fiocruz, Lab Inflammation.

12.012 **Development and Validation of HPLC-DAD Method for Pharmacokinetic Study of a New Leishmanidal Drug Candidate in Plasma Rat.** Teixeira FEG, Ciocheta T, Haas SE Unipampa, Lab de Farmacologia e Farmacometria, Instituto Nacional de Ciência e Tecnologia de Fármacos e Medicamentos

12.013 **Drug-Target Kinetics and Thermodynamics in Drug Discovery: Using of p-NPP to Characterize the Ligands of Na+/K+-ATPase in a Cheap Way**. Azalim-Neto PA[1], Noel FG[1], Silva SC[2], Villar JAFP[2], Barbosa L3, O'Doherty G[4], Scavone C[5], Quintas LEM[1] 1UFRJ, Lab. de Farmacologia Bioquímica e Molecular, [2]UFSJ, Lab. de Síntese Orgânica e Nanoestruturas; [3]UFSJ, Lab. de Bioquímica Celular, [4]Northeastern University, Dept. of Chemistry and Chemical Biology, [5]USP, Dept. de Farmacologia

12.015 **Pharmacokinetics and Impact of Metabolism of the Bupivacaine Analogue JMXiBn in Mouse Lung After a Single Nebulization.**
Santos GCM[1], Nascimento VA[1], Cotias AC[1], Costa JCS[2], Silva, PMR[1], Martins MA[1]. [1]IOC-Fiocruz, Lab. of Inflammation; [2]VPPIS-Fiocruz

12.016 *In vitro* **Validation of New PAD-4 Inhibitors HITs for the Treatment of Inflammatory Diseases.** Augusto PSA, Melo ISF, Severino, MB, Alves FILHO, JCF, Leiria, LOS, Cunha, TM, Cunha, FQ CRID-FMRP-USP, Lab de Inflamação e Dor

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01. Cellular and Molecular Pharmacology

01.024 **N2-like Neutrophil-Derived Extracellular Vesicles Enhance Malignancy of MDA-MB-231.** Amorim CS[1], Amorim NS[1], Frony AC[2], Toja BM[1], De-Freitas-Júnior JCM[2], Renovato-Martins M[3], Barja-Fidalgo TC[2], Moraes JA[1] [1]UFRJ, [2]UERJ Rio de Janeiro, Dpt de Biologia Celular; [3]UFF, Dpt de Biologia Celular e Molecular.

01.025 **β2-Glycoprotein 1 & Serum Amyloid P as Candidates for Suicidal Risk Biomarkers.**Pedroso LS[1], Rosa PH[1,2], Schons T[1,2], Ziani PR[1,2],Mezzomo G[1,2] Rocha G[1], Baldez DP[1], Patusco G[1], Magalhaes PV[1], Rosa AR[1,2,3]. [1]HCPA, Lab of Molecular Psychiatry, [2]UFRGS, Dept of Pharmacology and Graduate Program of Pharmacology and Therapeutics, [3]UFRGS, Graduate Program in Psychiatry and Behavioral Sciences

04. Inflammation and Immunopharmacology

04.037 **Volumetric Assessment of Abnormal Enlargement of the Mouse Lung's Conductive Airways IN Acute Lung Injury Caused by Influenza a Virus Infection.** Cotias AC[1], Ferreira TPT[1], Gomes HS[1], Santos HBS[1], Arantes ACS[1], Carvalho VF[1], Silva PMR[1], Ball L[2], Martins MA[1] [1]Fiocruz, Lab of Inflammation, [2]University of Genova, Dept of Surgical Sciences and Integrated Diagnostics

04.038 **Docosahexaenoic Acid Improves Microcirculation in Inflammatory Conditions.** Moraes BPT[123], Almeida MAP[3], Costa MF[3], Cunha CMC[13], Estato V[3], Souza-e-Souza KF[23], Lacerda GSG[23], Santos FS[13], Moraes-de-Souza I[23], Bozza, PT[3], Castro-Faria-Neto HC[3], Sperandio, M4, Silva AR[123], Gonçalves-de-Albuquerque CF[123] [1]UFF, Post-Graduation Program in Neuroscience, [2]UERJ, Immunopharmacology Lab, [3]Fiocruz, Immunopharmacology Lab, [4]Ludwig-Maximilians-Universität Munich, Biomedical Center (BMC), Institute for Cardiovascular Physiology and Pathophysiology, Walter Brendel Center for Experimental Medicine

04.039 **Effect of Parecoxib and Dexamethasone on the Temporomandibular Joint of Orchiectomized Rats: Morphological and Immunological Analysis.** dos Santos VAB[1], Groppo FC[2], Monteiro MHA[2], Henriques GEP[2], Figueroba SR[2]. [1]UFPR, Dpt of Pharmacology; [2]FOP-Unicamp, Dpt of Biosciences

04.040 **Effects of Hydrogen Sulfide (H_2S)-Releasing Dexamethasone Derivatives on NLRP3 Inflammasome Activation and Inflammatory Response in THP-1 Macrophages.** Coavoy-Sánchez SA[1], Santagada V[2], Caliendo G[2], Severino B[2], Costa SKP[1], Muscará MN[1] [1]ICB-USP, Dept. of Pharmacology, [2]Studi di Napoli, Dept. of Pharmacy

04.041 *In vitro* **Evaluation of Anti-inflammatory Potential of Fruticulin A from** *Salvia lachnostachys* **Leaves.** Ferreira LEN[1], Baggio DF[2], Corso CR[2], Oliveira CS[3-4], Stefanello MEA[3], Acco A[2], Chichorro JG[2] [1]Guarulhos University, Lab of Inflammation and Immunology, [2]UFPR, Dpt of Pharmacology, [3]UFPR, Dpt of Chemistry, [4]IQSCar-USP

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02. Neuropharmacology

02.005 **Effects of the Hydroalcoholic Extract Obtained from the Aerial Parts of** *Targetes erecta* **L on Cognitive Deficits Mice with Streptozotocin-Induced Alzheimer's.** Souza FL[1], Valachinsk AW[1], Costa BG[1]; Mota da Silva L[2], Cazarin CA[1], De Souza MM[1] [1]NIQFAR-Univali, [2]UFSC, Dept of Pharmacology, Postgraduate Program in Pharmacology

02.008 **Neuroanatomical Changes in the Prefrontal Medial Cortex of Adolescent Male Rats Exposed to Cigarette Smoke.** Sant' Ana BH[1], Izolan LR[2], Pulcinelli RR[1], Rasia-Filho AA[2], Rosane Gomez[1,2] [1]UFRGS, PPG Farmacologia e Terapêutica, [2]UFRGS, PPG Neurociências

02.009 **New Arylpiperazine Derivative (LQFM183) Exerts a Neuroprotective Effect Against 6-Hydroxydopamine-Induced Neurotoxicity in Male Swiss Mice.** Saboia ABM, Ferreira PYO, Uchenna N, Campos HM, Menegatti, R, Ghedini PC FF-UFG, Dept of Pharmacology

02.010 **The Infusion of** *Achyrocline satureioides* **has a protective** *in vitro* **Effect Against Oxidative Damage in Human Neural Cells.** Chelotti MED, Turra BO, Bonotto NCA, Sasso JS, Zimmermman JAB, Da Cruz IBM, Barbisan F[1]UFSM, Lab Biogenomics, Dpt Morphology

02.011 **Ealy Life Stress Induced by the LBN Model Alters Feeding Behavior of Rats.** Pereira RM[1], Laurentino AOM[1,2], Souza JME[2], Peres AM[3], Gomez R[1], Krolow R[3], Lazzaretti C, Leal MB[1,2] [1]UFRGS, Dpt of Pharmacology; [2]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics; [3]UFRGS, Dpt of Biochemistry

02.012 **Zinc Chloride Exerts Anticonvulsant Action in a Model of Epileptic Seizures Induced by Pentylenetetrazol in Zebrafish (*Danio rerio*).**
Amorim C[1], Roza C2, Dutra AR[3], Fernandes O[1], De Souza MM[4], Gadotti VM[4] [1]Univali, School of Health Sciences, Biomedicine Undergraduate Program, [2]Univali, School of Health Sciences, Nutrition Undergraduate Program, [3]Univali, School of Health Sciences, Pharmacy Undergraduate Program, [4]Univali, Pharmaceutical Sciences Graduate Program

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02. Neuropharmacology

02.019 **Alda-1, an Enhancer of Aldehyde Dehydrogenase-2 Activation, Reduces Nociception in a Model of Complex Regional Pain Syndrome Type I in Mice.** Frare JM[1], Rodrigues P[2], Vieiro FT[2], Peres DS[2], Ruviaro NA[1], Zambelli VO[3], Trevisan G[1,2] [1]UFSM, PPG Biological Sciences: Toxicological Biochemistry. [2]UFSM PPG Pharmacology [3]USP

02.020 **Effect of Cannabigerol Treatment During Reconsolidation on Fear Memory Generalization.** Ferreira MA1, Bergmann MF1, Moreira FA2, Gazarini L3, Bertoglio LJ4, Guimarães FS5, Stern CAJ[1] [1]UFPR Curitiba, Dpt of Pharmacology, [2]UFMG, Dpt of Pharmacology; [3]UFMS-Três Lagoas, PPG Nursing; [4]UFSC, Dpt of Pharmacology; [5]USP, Dpt of Pharmacology

02.022 **The Impact of Insomnia on Behavior and SUMOylation in Aged Mice.** Santos MP[1], Canever JB[1], Queiroz LY[1], Machado GM[1], Griebner G[3], Stahler CU4, Gissoni J5, Cimarosti HI[1,2]. [1]UFSC, PPG Neuroscience; [2]UFSC, PPG Pharmacology; [3]UFSC, Biological Sciences Center; [4]UFSC, Health Sciences Center; [5]Constructor University Bremen, School of Science, Germany.

02.024 **The Effects of Environmental Enrichment on the Behavioral Profile of Attention Deficit Hyperactivity Disorder Genetic Models.** Zurchimitten GR[1], Oliveira BRF[2], Maia L[1], Izídio GS[1]. [1]UFSC Florianópolis, PPG Pharmacology; UFSC Florianópolis, PPG Biology, Embryology and Genetics.

02.026 **Effects of Curcumin Nanocapsules on Lipid Peroxidation in a Rat Model of Alzheimer's Disease.** Comis-Neto AA, Batista WT, Luzardo BFS, Haas SE, Rosa SG, Pinton S Unipampa-Uruguaiana

02.027 **Neuroprotective Effects of *Eugenia uniflora* on BDNF Pathway in Female Wistar Rats Exposed to MPTP.** Arena RVP, Savall ASP, Gomes J, Neto AAC, Rodrigues ES, Rodrigues BG, Rosa SG, Pinton S Unipampa

02.028 **Effect of Chronic Administration of salbutamol on behavioral and neurochemical changes in an experimental model of parkinsonism**
Monteiro-Carvalho MCN[1], Franco HS[2], Oliveira MCS[1], Mendonça MS[1], Luz ACA[1], Tavares MMG[1], Silva JCJ[2], Souza JLS[1], Melo JEC[1], Dantas IC[1], Andrade CI[1], Ribeiro AM[3], Silva RH[3], Gois AM[1], Santos JR[1] [1]UFS-São Cristóvão, PPG Physiology; [2]UFS-São Cristóvão, Dpt of Physiology; [3]Unifesp

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02. Neuropharmacology

02.033 **Interaction Between Prototypical Antidepressants and Drosophila Dopamine Transporters: Molecular Docking Study.** Triches FF[1], Triches F[2], Martins T[1], Reis S[3], Bernardes LSC[3], Oliveira CL[1] [1]CCB-UFSC, Lab of Behavioral Neurobiology, [2]UFSC, Dept of Mobility Engineering, [3]CCS-UFSC, Dept of Pharmacy

02.034 **Characterization of the *in vivo* and *in vitro* Effects of Cannabidiol (CBD) on SARS-CoV-2-Infected SH-SY5Y-Derived Extracellular Vesicles.** Marques BLM[1], Martins RB[2], Arruda E[2], Campos AC[1] [1]FMRP-USP, Dept of Pharmacology, [2]FMRP-USP, Dept of Cell and Molecular Biology

02.035 **Cecal Slurry-induced Sepsis Impairs Cognition and Emotional Behavior and Decreases SUMO-2/3 Conjugation in Male Mice.** Queiroz LY[1,2], Mariot LN[2], Soares ES[2], Stahler CU[2], Griebner G[2], Machado GM[1], Canevera JB[1], Sordi R[2], Cimarosti HI[1,2] [1]UFSC, Postgraduate Program in Neuroscience, [2]UFSC, Postgraduate Program in Pharmacology, Dept of Pharmacology

02.036 **Investigation of Sexual Dimorphism on Emotional and Biochemical Parameters in LDLr-/- Knockout Mice, a Model of Familial Hypercholesterolemia.** Amorim GES[1], Rader MAS[1], Sampaio IM[1], Pinho CM[1], Peixe CMS[1], Willrich CH[1], Rafacho A[2], Motta L[1], Brocardo PS[3], Prediger RD[1] [1]UFSC, Dept of Pharmacology, Center of Biological Sciences, [2]UFSC, Dept of Physiological Sciences, Center for Biological Sciences, [3]UFSC, Dept of Morphological Sciences

02.037 **Subchronic Administration of Levamisole, a Cocaine Adulterant, alters Neurotransmitters Levels in Rat Brain.** Laurentino AOM[1,2], Souza TB[1], Pereira RM[2], Sebben VC[3], Dallegrave E4, Arbo MD[3], Oliveira SCEF4, Leal MB[1,2] [1]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics; [2]UFRGS, Dpt of Pharmacology; [3]UFRGS, PPG Pharmaceutical Sciences; 4UFCSPA, Dpt of Pharmaceutical Sciences

02.038 **Behavioral Changes Promoted by Omeprazole in Mice Vary According to Biological Sex and Treatment Duration.** Venzon L[1], Santos ACS[1], França TCS[1], Cazarin CA[1], Silva TFQ[1], Nilz PM[1], Pagliochi AC[1], Eisendecker HI[1], Corsi LF[1], Harle M[1], Willrich CH[2], Silva LM[2] [1]Univali Postgraduate Program in Pharmaceutical Sciences, [2]LAPHATI-UFSC, Lab of Pharmacology Applied to the Gastrointestinal Tract and its Interactions, Pharmacology Dept

02.039 **Low Doses of Broad-Spectrum Cannabidiol Oil Ameliorate Prenatal Valproic Acid-Induced Autism-Like Behaviors in Male and Female Rats.**
Malburg CC[1], Felicio AES[1], Andriolo IRL[1], Olinda LML[1], Eisendecker HI[1], Schaedler LS[1], Longo B[2], Kraus SF[1], Cazarin CA[1], De Souza MM[1], Da Silva LM[2]. [1]Univali, Postgraduate in Pharmaceutical Sciences, [2]UFSC, Dpt of Pharmacology

02.040 **Effect of Melatonin, Vitamin D and Associations on the Memory of Animals Subjected to Sleep Deprivation and the Model of Dementia induced by the βA1-42 Peptide in Mice.**

Medeiros EB, Lidio AV, Fenilli GP, Cardozo J, Chaves Júnior HRO, Jesus LC, Boaventura A, Grings LR, Zabot GC, Budni J Unesc, Lab of Experimental Neurology, Graduate Program in Health Sciences

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03. Psychopharmacology

03.001 **Assessment of the Effects of Restrictive and Hypercaloric Diets on Anxious and Cognitive Like Behaviors in Adolescent Female Mice.** Carriço-Mosquini V, Sousa-Reis DF, Friedrich-Veloso M, Braun-Dias I, Silva-Batista MKM, Vieira-Francisco LG, Ornelas-Carletti IM, Araújo MFP, Hollais AW LANCOB-UFES, Behavioral and Biomolecular Neuroscience Lab, Dpt of Physiological Sciences, Health Sciences Center

03.002 **Ayahuasca Facilitates the Extinction of Contextual Aversive Memories in Female Rats.** dos Santos ALA[1], Werle I[1], dos Santos RRG[2], Hallak JEC[2], Bertoglio LJ[1], [1]UFSC, Depto de Farmacologia; [2]USP-RP, Depto de Neurociências e Ciências do Comportamento

03.003 **Effects of *Lactiplantibacillus plantarum* 286 and *Lactiplantibacillus plantarum* 81 on Ethanol-induced Conditioned Place Preference in Mice.** Fighera YM[1], Silva KSO[1], Resende GR[1], Marinho EAV[2], Berro LF[2], Tamura EK[1] [1]UESC, Chronobiology Research Group, [2]UESC, Dept of Health Sciences

03.004 **Behavioral and Neurochemical Effects of Exposure to Epoxiconazole in Zebrafish.** Pateli-Alves A[1], Reis CG[1,2], Chitolina R[1,2], Bastos LM[1,3], Portela SM[1], Stahlhofer-Buss T[1], Piato A[1,2,3] [1]LAPCOM-UFRGS, Lab de Psicofarmacologia e Comportamento; [2]UFRGS, PPG Neurociências; [3]UFRGS, PPG Farmacologia e Terapêutica.

03.005 **The Effect of N-Acetylcysteine on Acute Epileptic Seizure Induced by Pentylenetetrazol in Zebrafish.** Stahlhofer-Buss T[1], Chitolina R[1,2],, Reis CG[1,2],, Linazzi AM[1], Herrmann AP[1,3],, Piato A[1,2,3]. [1]LAPCOM-UFRGS, Lab de Psicofarmacologia e Comportamento; [2]UFRGS, PPG Neurociências; [3]UFRGS, PPG Farmacologia e Terapêutica

03.006 **Low Benefit of ARRIVE Guidelines on Reporting in the Field of Forced Swimming Test: Experimental Design Issues or Convenient Citation?** Hofmann ACL, Martins T, Lino de Oliveira C. UFSC Florianópolis, Dpt of Physiological Sciences, PPG in Pharmacology; [2]UFSC Florianópolis.

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04. Inflammation and Immunopharmacology

04.008 **Inflammatory Responses of the Mouse Epididymis to NS1 Proteins from Zika virus (ZIKV) and Dengue virus (DENV) are Partially Mediated by Toll-Like Receptor 4 (TLR4) Activation.** Camargo IA[1], Martini PV[1], Andrade AD[1], Kushima H[1], Ortiz AA[2], Modhiran N[2], Watterson D[2], Costa SM[3], Alves AMB[3], Silva EJR[1]. [1]Unesp-Botucatu, Dpt of Biophysics and Pharmacology; [2]University of Queensland School of Chemistry and Molecular Biosciences, Brisbane, Queensland, Australia; [3]Fiocruz, Lab of Biotechnology and Physiology of Viral Infections.

04.010 **Sexual Dimorphism in Hypothalamic Serotonin Release during Systemic Inflammation: Role of Endothelin-1.** Costa RA, Amatnecks JA, Côrtes GDG, Souza TA, Zampronio AR UFPR, Dpt of Pharmacology

04.011 **Reduction of Pro-Inflammatory Cytokines by Resveratrol and AGK-2 in Microglia Stimulated with *Klebsiella pneumoniae*.** Costa MF[1], Castro LVG[1], Castro-Faria-Neto HC[1], Bozza

PT[1], Gonçalves-de-Albuquerque CF1[1,2], Silva AR[1] [1]IOC-Fiocruz, Immunopharmacology Lab, [2]Unirio, Immunopharmacology Lab, Dept of Physiological Sciences

04.012 **Protease-Activated Receptor 1 (PAR-1) is involved in the Lung Fibrosis caused by Silica Particles in Mice.** Souza LM[1], Ferreira TPT[1] Ferreira GG[1], Cotias ACC[1], Arantes ACS[1], Ball L[2], Martins MA[1], Lagente V[3], Silva PMR[1] [1]Fiocruz, Lab of Inflammation, [2]University of Genova, Dept of Integrated Surgical and Diagnostic Sciences, Italy; [3]University of Rennes I, Faculty of Pharmacy, France

04.013 **_In silico_ and _in vivo_ studies of the antioxidant potential of (E)-3-(3-methoxyphenyl) Pentyl Acrylate in an Experimental Model of Pulmonary Emphysema in _Rattus norvegicus_.** Veloso VL[1], Acha BT[2], Viana AFSC[1], Pinheiro CS[2], da Silva SAS[3], Alves WS[4], De Sousa DP[5], Oliveira FA[1,3] [1]UFPI, Graduate Program in Pharmacology; [2]UFPI-RENORBIO, PhD Program in Biotechnology; [3]UFPI; [4]Uespi, [5]UFPB, Dept of Pharmaceutical Sciences

04.014 **Involvement of Precocious Ovulation on Lung Mechanic and Inflammation in a Murine Model of Asthma.** Alves VF[1], Melhado IVS[1], Ribeiro MR[1], Oliveira MA[1], Moriya HT[2] Frajblat M[3], Tavares-de-Lima W[1] [1]ICB-USP, Dept. of Pharmacology, [2]Polytechnic School, Dept. of Telecommunication and Control Engineering, University of São Paulo, São Paulo, [3] IBCCF-UFRJ, Institute of Biophysics

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04. Inflammation and Immunopharmacology

04.025 **Effects of Pharmacological Modulation of FFA1 Receptors Combined with Environmental Enrichment on CFA-induced Arthiritis Model.** Estrázulas M, Campos MM PUC-RS, Escola de Medicina Centro de Pesquisa em Toxicologia e Farmacologia, Programa de Pós-Graduação em Medicina e Ciências da Saúde

04.026 **Safety Evaluation and Modulatory Effects on Innate Immune System of Pyrazoline Derivated Compounds.** Goldoni FC[1], Benvenutti L[1], Nunes R[1], Vaz CR[1], Garcia L[2], Furtado K[2], Buzzi FC1, Bubniak LS[2], Quintão NLM[1], Santin JR[1] [1]Univali, Postgraduate Program in Pharmaceutical Science, [2]Univali, Pharmacy Course, School of Health Sciences

04.028 **Effect of Methyl Gallate on Chikungunya induced Arthritis in Mice.** Oliveira TAL[1], Correa LB[1], Nunes PCG[2], Azeredo EL[2], Rosas EC[1] [1]Farmanguinhos-Fiocruz, Lab of Applied Pharmacology. Institute of Drug Technology, [2]LIV-IOC-Fiocruz, Lab of Viral Immunology

04.029 **Effect of _Handroanthus heptaphyllus_ Bark Hydroethanolic Extract on the Leukocyte Recruitment, Nitric Oxide and Pro-Inflammatory Cytokines Levels in the Zymosan-induced Peritonitis Model.** Lencina JS[1], Lossavaro PKMB[1], Souza KFS[1], Venâncio GSO[1], Ferreira JV[1], Machado LL[1], Silva DB[2], Toffoli-Kadri MC[1], Silva-Filho SE[1] [1]UFMS, Lab of Pharmacology and Inflammation. [2]UFMS, Lab of Natural Products and Mass Spectrometry

04.030 **Effect of Sodium Alginate Biomembranes Containing Hydroalcoholic Extract of _Solanum stipulaceum_ Will ex. Roem & Shult on the Healing of Induced Excisional Skin Wounds in Mice.** Biano LS[1], Reis ES[1], Araújo JMD[1], Ramos LS[1], Palmeira DN[1], Souza DA[1], Sales MR[1], Nascimento ACS[1], Santʹana ROS[1] , Severino P[2], Camargo ZT[1], Moura TR[2], Grespan R[1], Camargo EA[1] 1UFS, [2]USF

04.032 **Effect of Tyrosine Kinase Inhibitor Bosutinib on Leukocyte Recruitment and Bacterial Proliferation in Sepsis.** Cunha CMCD[123], Moraes BPT[12], Abreu VHP[12], Soares GVM[12], Moraes-de-Souza IM[12], Almeida MAP[12], Estato V[2], Sayão PGF[12], Souto HA[12], Bozza PT[2], Castro-Faria-Neto

HC[2], Silva AR[23], Gonçalves-de-Albuquerque CF[123]. [1]Unirio, Immunopharmacology Lab, Dept of Physiological Sciences; [2]IOC-Fiocruz, Immunopharmacology Lab; [3]Fiocruz, Postgraduate Program in Cellular and Molecular Biology

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05. Pain and Nociception Pharmacology

05.006 **TRPA1 Participates in Reserpine-induced Painful and Comorbid Symptoms in an Experimental Fibromyalgia Model in Mice.** Perazzio AC[1], Brum E[1 2], Fialho MFP[1 2], Araújo DS[2], Landini L[2], Marini M[2], Titiz M[2], Geppetti P[2], Nassini R[2], De Logu F[2], Oliveira SM[1,2] [1]UFSM, Pain Research Group, Center of Natural and Exact Sciences; [2]UFSM, Dpt. of Biochemistry and Molecular Biology; [3]UniFI, Florence, Italy

05.009 **Dose-Dependent Resveratrol Partially Reverses Mechanical Allodynia in Rats Subjected to a Chronic Inflammatory Orofacial Pain Model.** Farias VEF[1 2]; Morais ITS[2,3,4], Marçal MM[2 3]; Stieven A[2,3,4]; Melo AS[1 2]; De Oliveira TC[1 2]; De Oliveira MEG[1 2]; Braga HB[1 2]; Stein DJ[3,5]; Torres ILDS[2,3,4]. [1]UFRGS, Pharmacy College; [2]PPG Biological Sciences: Pharmacology and Therapeutics; [3]UFRGS, PPG in Medicine: Medical Sciences; [4]HCPA, Pharmacology of Pain and Neuromodulation Lab

05.010 **Antinociceptive and Anti-inflammatory Properties of *Lippia alba* Essential Oil in Mice.** Jesus MVAC[1], Santana GCS[1], Cruz ABO[1], Velozo ACL[1], Opretzka LC[1], Lima AA[2], Villarreal CF[1]. [1]UFBA, Dpt of Pharmacy; [2]FIOCRUZ-BA

05.011 **Influence of Female Sex Hormones in Hyperalgesia Induced by Central Administration of Endothelin-1.** Côrtes GDG, Costa RA, Zampronio AR UFPR Curitiba, Dpt of Pharmacology.

05.012 **Cannabidiol plus Pregabalin Combined Treatment in Neuropathic Pain Induced by Chronic Constriction Injury in Male Rats.** Takamatsu GY[1], Villatore VN[1], Franco RA[1], Ferreira MV[1], Crippa JAS[2], Zanoveli JM[1], Cunha JM[1] [1]UFPR, Dpt of Pharmacology; [2]FMRP-USP, Dpt of Neurosciences and Behavioral Sciences

05.014 **Antinociceptive Profile of Different Compositions of Phytocannabinoid Extracts.** Junger MG, Matheus ME, Miranda ALP UFRJ, Lab of Studies in Experimental Pharmacology, [2]ICB-UFRJ

05.015 **Characterization of the Possible Pharmacological Interaction of Cannabidiol and Pregabalin in Chronic Constriction Injury-Induced Neuropathic Pain in Female Rats.** Villatore VN[1], Takamatsu GY[1], Franco RA[1], Ferreira MV[1], Crippa JAS[2], Zanoveli JM[1], Cunha JM[1]. [1]UFPR Curitiba, Dpt of Pharmacology; [2]FMRP-USP, Dpt of Neurosciences and Behavioral Sciences

05.016 **Reactive Aldehydes Contribute to the Development of Alcoholic Neuropathy in Mice.** Souza DF, Silva, JCB, Hösch NG, Zambelli VO Butantan Institute, Lab of Pain and Intracellular Signalization

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05. Pain and Nociception Pharmacology

05.019 **Analgesic Effect of Pharmacoacupuncture with Apitoxin or Melittin is Mediated by Opioidergic Pathway and Results from the Reduciton of Neuroinflatory Markers in Rat Neuropathic Pain Model.** Boaventura de Oliveira AM, Silva DF, Silva GSA, Almeida TC, Sant'Anna MB, Marques-Porto R, Picolo G Butantan Institute, Lab of Pain and Signaling, [2]Butantan Institute, Lab of Development and Innovation

05.022 **Influence of Sleep Restriction on the Development of Responses Associated with Migraine in Male and Female Rats.** Oliveira GC, Luz FMR, Chichorro JG UFPR Curitiba, Dpt of Pharmacology

05.026 **Maresin 2 Alleviates Nociceptive and Anxious-Like Behaviors Inhibiting IL-1β in Spinal and Cortical Regions of Diabetic Rats.** Oliveira G[1]; Ferreira MV[1]; Bonfim JC[1]; Verri-Junior WA[2]; Zanoveli JM[1]; Cunha JM[1] [1]UFPR, Dept of Pharmacology; [2]UEL, Dept of Pathology

05.027 **Paclitaxel Induces Neurotoxicity and Impairs Mitochondrial Dynamics in Cultured Dorsal Root Ganglion Sensory Neurons.** Troitiño VC, Martins BB, Silva GSA, Hosch NG, Zambelli VO Butantan Institute, Lab of Pain and Signaling

05.028 **A Fibromyalgia-Like Model Induced a Long-lasting Increased in Interleukin-1B Levels in the Brainstem of Female Rats.** Dal Bosco T[2,3], Stieven A[1,3], Morais ITS[2,3], Oliveira TC[3], Braga HB[3], Marini LL[2,3], Castro JM[1,3], Stein DJ[1,3], Torres ILS[1,2,3] [1]UFRGS, Programa de Pós-Graduação em Medicina: Ciências Médicas, [2]UFRGS, Programa de Pós-Graduação em Ciências Biológicas: Farmacologia e Terapêutica; [3]HCPA, Lab de Farmacologia da Dor e Neuromodulação: Investigações Pré-Clínicas, Centro de Pesquisa Experimental

05.029 **Evaluation of the Effect of a Cyclodextrin Inclusion Formulation of the P1G10 Proteolytic Fraction from the Latex of *Vasconcellea cundinamarcensis* in a Model of Neuropathic Pain Induced by Chemotherapy.** Lima KFN[1], Paixao MS[1], Souza FM[1], Cavalcante KDM[1], Cavalcante FAS[1], Sousa, MM[1], Silva IS[1], Almeida FRC[2], Dittz D[1,2] [1]UFPI, Lab of Antineoplastic Pharmacology; [2]UFPI, Dept of Biochemistry and Pharmacology

05.030 **THC Interacts with Human TRPV1 Channel as Target to Treatment of Fibromyalgia: Docking Insights.** Costa AEA[1], Silva GM[2], Aguiar ACO[2], Lucena LMV[2], Silva Junior JP[3], Silva JLV[2]. [1]USP;[2]FMO-UFPB; [3]UFCG

05.031 **4-Hydroxinonenal is involved in Morphine Tolerance and Hyperalgesia by Activating Transient Receptor Potential Ankyrin 1.** Pennachioni NP [1], Stein Neto B[1], Hosch NG[1], Martins BB[1], Assis GS[1], Dallazen JL[1,2], Zambelli VO[1,2] [1]Butantan Institute, Lab for Pain and Signaling, [2]CENTD/Butantan Institute

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05. Pain and Nociception Pharmacology

05.032 **Pharmacological Characterization of CGRP Signaling Pathway in the Trigeminal Ganglion of Male and Female Rats.** Baggio DF, Da Luz FMR, Lejeune VBP, Chichorro JG UFPR, Dept of Pharmacology, Biological Sciences Sector

05.033 **Effect of Peppermint Essential Oil (*Mentha piperita* L.) in Migraine-like Responses in Female Rats.** Lejeune VBP, Koren LO, Baggio DF, Luz FMR Chichorro JG UFPR, Dept of Pharmacology, Biological Sciences Sector

05.035 **Intrathecal Treatment With IL-1ra Reduced the Maintenance of Chronic Inflammatory Muscle Hyperalgesia in Male and Female Mice.** Gomes BB, Rodrigues HL, Dorta EO, Caetano I, Oliveira MCG FCA-Unicamp Lab of Pain and Inflammation Research

05.036 **Antinociceptive Potential of the Inhibition of the Soluble Epoxide Hydrolase Enzyme in the Trigeminal Neuralgia in Mice.** Couto ACG[1], Silva TM[1], Trindade C[2], Hammock B[3], Crosara T[4], Silva CR[1]. [1]PPGGB-GPANI-UFU, [2]INAPOS, [3]University of California Davis, Dpt of Entomology and Nematology & Comprehensive Cancer Center

05.039 **Analgesic Drug Efficacy in Mouse Postoperative Pain: A Systematic Review and Meta-Analysis.** Schran RG[1], Rodrigues P[2], Trevisan G[2], Ferreira J[1]. [1]UFSC, Graduate Program in Pharmacology, [2]UFSM, Graduate Program in Pharmacology

05.041 **Drp1 as a Potential Target for the Treatment of Paclitaxel-induced Neuropathic Pain.** Martins BB[1], Hösch NG[1], Cunha TM[2], Chiaratti MR[3], Mochly-Rosen D[4], Ferreira JCB[5], Zambelli VO[1]. [1]Butantan Institute, [2]FMRP-USP, [3]UFSCAR, [4]Stanford University, USA; [5]ICB-USP

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06. Cardiovascular and Renal Pharmacology

06.004 **Cannabinoid Receptors Type 2 (CB2) Agonists Enhance Nitric Oxide Production in Vascular Smooth Muscle Cells.** Oliveira MKS, Bobermin D, Delfrate G, Mariot LN, Assreuy [2], Sordi R UFSC, Dpt of Pharmacology, PPG in Pharmacology

06.006 **Long-term Effects of Sepsis on the Pro-Contractile Effect Mediated by Perivascular Adipose Tissue of the Rat Thoracic Aorta.** Casagrande CS, [1]Padilha AV, [1]Gomes-Pereira L, [1]da Silva-Santos JE UFSC, Dpt of Pharmacology, PPG in Pharmacology

06.007 **Involvement of Calcium Channels in the Cardiovascular Effects of Geranyl Acetate in Rats.**
Silva IAN[1], Santana IR[1], Lima Silva LM[1], Barreto AS[1 2], Durço AO[1,3], Roman-Campos D[4], Santos MRV[1], [1]UFS, Depto de Fisiologia, Programa de Pós-Graduação em Ciências da Saúde, [2]UFS, Depto de Educação em Saúde, [3]Unifesp, Depto de Biofísica

06.008 **Resveratrol Decreases Oxidative Stress and Improves Cardiac and Vascular Dysfunction in Rats with Obesity Associated with Metabolic Syndrome.** Manoel LB, Melo MMB, Bueno EKP[1], Dourado TMH[1], Assis VO[1], Fazan Jr R[2], Tirapelli CR [1], Castro MM[1] [1]FMRP-USP, Dpt of Pharmacology, [2]FMRP-USP, Dpt of Physiology

06.013 **Cardiac Pro-Oxidant and Inflammatory Effects Associated with Subacute Exposure to Tributyltin in Male Wistar Rats.** Souza, ARS[2], Mendes, ABA[1,2], Freitas, CO[2], Autran, LJ[2], Stein, AT[2], Brazão, SC[2], Lima, GF[2], Pereira, NCA[2], Alexandre-Santos, B[3,4], Magliano, DC[4], Alves, LM[1], Motta, NAV[2], Brito, FCF[2] [1]UFRJ, Research, Innovation and Development Group in Experimental Endocrinology; [2]UFF, Experimental Pharmacology Lab; [3]UFF, Exercise Sciences Lab; [4]UFF, Morphology and Metabolism Research Center

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06.018 **Cardiovascular Protective Effects of Naringenin in Normotensive and Hypertensive Rats Undergoing Myocardial Infarction.** Dada A, Silva RCV, Zanovello M, Moser JC, Orengo SLD, Cavichiolo MO, Bidinha ER, Boeing T, Cechinel Filho V, Souza P Univali, Programa de Pós-graduação em Ciências Farmacêuticas

06.019 *in vitro* **and** *ex vivo* **Cardiotoxicity of the Pesticide Fenpropathrin: Involvement of Nav1.5 and Potential Therapeutic Use of Mexiletine.** Alcântara SA[1], Orts DJB[1], Marques LP[1], Teixeira-Fonseca JL[1], Conceição MRL[1], Barbosa MLAM[2], Fontes JLR[2], Souza DS[2], Roman-Campos D[1] [1]Unifesp, Dept of Biophysics; [2]UFS, Dept of Physiology

06.020 **Assessing the Impact of Adenosine A1 Receptor Blockade on Sepsis-induced Cardiorenal Changes.** Albino LB, Fernandes D UFSC Florianópolis, Dpt of Pharmacology

06.022 **The Cool Factor: Investigating the Vascular Influence induced by menthol in Female Mice Arteries.** Cavalcante MAR[1], Araujo FA[2,3], Moraes RA[2,3], Passos RR[3], Tavares MF[3], Wenceslau CF[3], Webb RC[3], Priviero F[3], McCarthy CG[3], Silva DF[1,2] [1] UFBA, Health Science Institute; [2]Fiocruz, Gonçalo Moniz Institute; [3]University of South Carolina Cardiovascular Translational, Research Center, School of Medicine, USA

06.023 **Effect of lipoic acid treatment over oxidative stress in septic shock.** Costa CDS, Moreira DH, Pinheiro LC UFSC, Dpt of Pharmacology

06.024 **Cardiovascular Effect of Restraint Stress in Hypertensive Rats with High Salt Intake After Repeated and Acute Folic Acid Treatment.** Miguel MVO[1], Rossato GO[1], Bonancea AM[1], Santos LB[2], Rodrigues SS[2], Moraes-Neto TB[2], Resstel LBM[2], Pelosi GG[1] [1]UEL, Dept of Physiological Sciences, [2]FMRP-USP, Dept of Pharmacology

06.025 **Evaluation of the Cardiovascular Effects of a New Nitric Oxide Donor.** Brito DS[1,2], Moraes RA[1,2,5], Silva LB[1], Araújo FA[1,2'], Jesus RLC[1], Sá D[3], Silva CDS[3], Pernomian L[4,5], Wenceslau CF[4,5], Priviero F[4,5], Webb RC[4,5], Silva DF[1,2] [1]UFBA, Lab of Cardiovascular Physiology and Pharmacology, Dpt of Bioregulation; [2]Fiocruz-BA; [3]IFBA; [4]University of South Carolina, Dpt of Cell Biology and Anatomy; [5]University of South Carolina, Cardiovascular Translational Research Center

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06.029 **Interaction of the Antiarrhythmic Drug Amiodarone and Dronedarone with the Human Nav1.5 Sodium Channel depends on Extracellular pH: New Perspectives for the Treatment of Arrhythmic Diseases**. Conceição MRL[1], Fonseca JLT[1], Souza DS[2], Marquesa LP[1], Alcântara FS[1], Orts DJB[1], Nascimento DS[2], Dantas CO[2], Vasconcelos CML[2], Roman-Campos D[1] [1]Unifesp/EPM, Dpt of Biophysics [2]UFS Dpt of Physiology

06.032 **Involvement of L-Type Calcium Channels (CavL) in the Cardiovascular Effect of** *Protium heptaphyllum* **March Resin in a Hypertension Model.** Portela ES[1,3,4], Sousa BB, Rego AF[1,3], Melo WGG[2], Carvalho MS[2], Nunes LRS[3], Araújo DS[3], Timah AB[4], Argôlo Neto NM[2,5], Oliveira AP[1,3,6] [1]UFPI, Postgraduate Program in Pharmacology; [2]UFPI, Postgraduate Program in Technologies Applied to Animals of Regional Interest; [3]UFPI Medicinal Plant Research Center; [4]UFPI, Post graduation program in Biotechnology; [5]UFPI, Dept of Clinical and Veterinary Surgery; [6]UFPI, Dept of Biophysics and Physiology

06.033 **The Role of C3a on Matrix Metalloproteinase (mmp)-2 Activity, t CD4+ Cells and Oxidative Stress in Angiotensin-II-Induced Hypertension**. Ramos LVR[1], Mello MM[1], Bueno EKP[1], Oliveira Neto JT[1], Melo BMS[2], Tostes RC[1], Alves-Filho CF[1,2], Castro MM[1] [1]Department of Pharmacology, Ribeirão Preto Medical School, USP; [2]Department of Immunology, Ribeirão Preto Medical School, USP

06.034 **Does Hypercholesterolemia Induce Cognition Impairment in Hypertensive Rats?** Betat A[1], Alflen L[2], Da Silva WJGM[1], Oliveira CGA[1], Izídio GS[3], Lataro RM[1] [1]UFSC, Dept of Physiological Sciences, [2]UFSC, Dept of Pharmacology, [3]UFSC, Dept of Cell Biology, Embryology and Genetics

06.036 **Angiotensin II-mediated Nitric Oxide Release Counteracts Vasoconstriction in the Aorta of Healthy Rats.** Gonçalves MP, Hahmeyer MLS, Da Silva-Santos JE UFSC, Lab of Cardiovascular and Smooth Muscle Biology, Dept of Pharmacology

06.037 **Vasorelaxant and Hypotensive Effect of the Alkaloid Boldine.** Cavichiolo MO, Silva RCMVAF, Dada A, Boeing T, Souza P [1]Univali, PPG Pharmaceutical Sciences.

06.038 **Elastase 2, an Angiotensin forming Enzyme, as a Key Modulator of Inflammatory Signaling Pathways in Abdominal Aortic Aneurysm.** Mestriner F[1], Dugaich VF[1], Dantas PB[1], Kovacs HZ[1], Ribeiro MS[1], Becari C[1,2] [1]FMRP-USP Division of Vascular and Endovascular Surgery, Dept of Surgery and Anatomy; [2]FOB_USP, Dept of Biological Science

06.046 **Effect of Nebivolol on Nitric Oxide Pathway and Endothelial Cell Migration in an *in vitro* Model of Preeclampsia.** Bueno-Pereira TO, Nunes-Santos K, Matheus MB[1] Zampieri GM, Nunes PR, Sandrim VC. Unesp-Botucatu Dept of Biophysics and Pharmacology, Institute of Biosciences of Botucatu ?, São Paulo

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07. Endocrine, Reproductive and Urinary Pharmacology

07.006 **Autophagy and Cellular Senescence in Benign Prostatic Hyperplasia in Obesity.** Fernandes CMAS, Lemos G, Calmasini FB Unifesp-EPM, Urogenital Tract Pharmacology Lab, Dept of Pharmacology

07.007 **The Role of Autophagy in Voiding Dysfunction in Obese Mice.** Lemos G, Fernandes CMAS, Calmasini FB Unifesp-EPM,Urogenital Tract Pharmacology Lab, Dept of Pharmacology

07.008 **Dexamethasone Treatment Reduces Insulin Sensitivity and Triggers Depressive-Like and Anxiety-Like Behavior in Post-Weaning Rats.** Peixe CMS[1], Giusti-Paiva A[1,2], Rafacho A[1,2] [1]UFSC, PPG in Pharmacology; [2]UFSC, Dpt of Physiological Sciences

07.009 **Modeling Diabetes-Like High Glucose Condition in *Caenorhabditis elegans* and Testing the Effect of Metformin.** Machado JC[1], Viçozzi GP[2], Pereira FSO[2], Sant'Ana BH[1], Seibert L[1], Pulcinelli RR[1], Garcia S[3], Gomez R[1]. [1]UFRGS, PPG Farmacologia e Terapêutica; [2]Unipampa, Grupo de Pesquisa em Bioquímica e Toxicologia em *Caenorhabditis elegans*; [3]UFRGS, Lab de Toxicologia, Programa de Pós-Graduação em Ciências Farmacêuticas

07.010 **Reactive Oxygen Species and Nitric Oxide Negatively Modulate Acetylcholine Release in the Urinary Bladder of Mice in a Model of Systemic Inflammation.** Silva-Costa JR, Silva-Santos JE UFSC, Lab of Cardiovascular and Smooth Muscle Biology, Dept of Pharmacology

07.011 **Physical Exercise Combined with Correction of High-Fat to Normal Diet Improves Sperm Quality in Obese Mice.** Souza LPS[1], Chies AB[2], Alves MG[3], Spadella MA[1]. [1]Famema, Dpt Embriologia Humana, Brasil; [2]Famema, Dpt Farmacologia, Brasil; [3]University of Aveiro, Dpt of Medical Sciences

07.012 **Role of Hydrogen Sulfide and Cyclic Guanosine Monophosphate in Obesity-Related Lower Urinary Tract.** Souza ALC[1], Santos LG[1], Teixeira SA[1], Antunes E[2], Mónica FT[2], de Oliveira MG[3], Muscara MN[1], Costa SKP[1] [1]ICB-USP, Dept. of Pharmacology, [2]Unicamp, Dept. of Pharmacology, [3]USF, Dept. Health Science, University of São Francisco

07.013 **Glucose Control Estimated through a Self-Monitoring Blood Glucose Device in Individuals with Type 1 Diabetes Treated with Human Insulin or Insulin Analogs: Cross-Sectional Evaluation.** Anschau F[1,2], Vargens AF[3], Pereira LB[1], Gomez R[1], Bock PM[1,4]. [1]UFRGS, PPG Farmacologia e Terapêutica; [2]Assistência Farmacêutica de Cachoeirinha/RS; [3]UFCSPA; [4]FURG

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08. Respiratory and Gastrointestinal Pharmacology

08.001 **Evaluation of the Antidiarrheal and Laxative Effect of the Hydroalcoholic Extract of *Spondias purpurea* L. in Mice.** Corsi LF[1], Miranda BP[1], Nunes RKS[2], Venzon L[2], Longo B[2], da Silva LM[3]. [1]Univali, Dpt of Nutrition; [2]Univali, PPG Pharmaceutical Sciences; [3]UFSC, Dpt of Pharmacology

08.002 **Gastroprotective Effect of Tribulus terrestris in Mice.** Belmudes MM[1], Guimarães ACN[1], Zanovello M[2], de Siqueira MCB[1], Correa KGP[1], Lourenço ELB[3], Gasparotto Junior A[4], Souza P[2], Boeing T[2]. [1]Univali; [2]PPG Pharmaceutical Sciences, Univali, [3]UNIPAR, Lab of Pre-Clinical Research of Natural Products, [4]UFGD, Lab of Cardiovascular Pharmacology

08.003 **Gastroprotective Activity of *Talinum paniculatum* in Mouse.** Correa KGP[1], Siqueira MCB[1], Zanovello M[2], Belmudes MM[1], Gasparotto Junior A[3], Souza P[2], Boeing T[2] [1]Univali; [2]Univali, Pharmaceutical Sciences Graduate Program, [3]UFGD, Lab of Cardiovascular Pharmacology, Faculty of Health Sciences

08.004 **Effect of Pioglitazone in the Treatment of Irinotecan-Induced Intestinal Mucositis in Mice.** Alves IP[1]; Colpo T[1]; Zanovello M[2]; Silva RCMVAF[2]; Dada A[2]; Dick SL[2]; Nunes RKS[2]; Souza P[2]; Boeing T[1,2] [1]Univali, Medicine; [2]Univali Postgraduate Program in Pharmaceutical Sciences, Chemical-Pharmaceutical Research Center

08.005 **Evaluation of the Antidiarrheal Mechanisms of Hesperetin in Mice** Alves VP, Pessoa MM, Pessôa MLS[1], Maciel ACM, Macedo NM, Batista LM UFPB, Dpt of Pharmacy

08.006 **Evaluation of the Antidiarrheal Activity and Effects on Gastrointestinal Motility of Rosmarinic Acid in Animal Models.** Maciel ACM, Alves VP, Macedo NM[1], Pessoa MMB, Pessôa MLS, Silva MS, Batista LM UFPB, Dpt of Pharmacy

08.007 **Assessment of Acute Toxicity, Antidiarrheal Activity and Effects on Gastrointestinal Motility of Silibinin in Mice.** Macedo NM, Alves VP, Maciel ACM, Pessoa, Pessôa MLS, Silva MS, Sobral MV, Batista LM

08.015 **(-)-Fenchone Improves TNBS-Induced Colitis in Rats through Antioxidant, Immunomodulatory, and Cytoprotective Mechanisms.** Pessôa MLS[1], Araruna MEC[1], Alves Junior EB[1], Pessoa MMB[1], Alves VP[1], Maciel AM[1], Macedo NM[1], Sobral MV[1], Da Silva MS[1], Alves AF[1], Araujo AA[2], Batista LM[1] [1]UFPB, [2]UFRN

08.016 **Effects of a PPARγ Partial Agonist on Lung Inflammation**. Benvenutti L[1], Nunes R[1], Ramos SA Vaz CR[1], Nilz P[1], Goldoni FC[1], Wolff FR[1], Pereira MES[1], Oliveira TF[2], Eller S[2], Marcon R[3], Corrêa R[1], de Campos Buzzi F[1], Quintão NLM[1], Santin JR[1]. [1]Univali, Itajaí/SC, Brazil; [2]UFCSPA, Porto Alegre/RS, Brazil; [3]UFSC, Center for Innovation and Pre-Clinical Trials (CIEnP), Florianopólis/SC, Brazil

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08. Respiratory and Gastrointestinal Pharmacology

08.017 **ASK1 Inhibition Reduced Elastase-Induced Pulmonary Emphysema in Mice.** Mineiro PCO[1], Fraga VSJ[2], Benjamim CF[2], Takiya CM[2], Lanzetti M[1], Moraes JA[1], Valenca SS[1] [1]ICB-UFRJ, [2]UFRJ-IBCCF

08.018 **Hydroalcoholic Extract of Araucaria sp Brown Propolis Alleviates Ulcerative Colitis Induced by TNBS in Rats by Reducing Inflammatory Cell Infiltration and Oxidative Damage.** Cury BJ[1], Jerônimo DT[2], Silva LM[2], Farias T[2], França TCS[2], Santos AC[2], Andriolo IRL[2], Santin JR[2], Bevenutti L[2], Vaz C[2], Santos MFC[3], Kenupp JB4, Silva LM[1]. [1]UFSC-LAPHATI, Lab of Pharmacology Applied to the Gastrointestinal Tract and its Interactions, Pharmacology Dept; [2]Univali, Postgraduate Program in Pharmaceutical Sciences; [3]UFES, Center of Exact Sciences,. [4]FCFRP-USP

08.019 **The Effect of α-Pinene on histological damage in 5-fluorouracil-induced intestinal mucositis in mice.** Barbosa BS[1], Sousa IJO[2], Gomes JGF[1], Neto FRP[1], Maia, MLR[1], Silva, PHS[3], Martins, HRS[3], Acha, BT[2], Oliveira, RC[1,3] [1]UFPI, Graduate Program in Pharmacology; [2]UFPI, Doctoral Program in Biotechnology - Northeast Biotechnology Network (RENORBIO); [3]UFPI, Medicinal Plants Research Center.

08.020 **Potential Gastroprotective of *Humulus lupulus* and xanthohumol: A Scientometric Analysis. Dalla** Vecchia CA[1], Miorando D[1], Ferreira AS[2], Ferraz CV[1], Maccagnan JC[1], Steffler AM[1], Roman Junior WA[1] [1]Unochapecó, Lab of Pharmacognosy, [2]Unoesc, Technology and innovation Lab

08.021 **Carveol Ameliorate TNBS-Induced Intestinal Inflammation: Role of Antioxidant System and Immunomodulation.** [1]Pessoa MMB[1], Pessôa MLS[1], Alves VP[1], Maciel ACM[1], Macedo NM[1], Sobral MV[1], Silva MS[1], Araújo AA[2], Batista LM[1] [1]UFPB, [2]UFRN

08.022 **Influence of Fluoxetine on Gastric Healing: Experimental Evidence of Sexual Dimorphism.** Silva TFQS, Mota da Silva L, Cazarin CA, Longo B, Nunes RKS, Cury BJ, Santos AC, França TCS, Venzon L, Silva LM UFSC

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09. Natural Products and Toxinology

09.015 **Regulation of Glucolipid Metabolism by Cashew Nut Oil (*Anacardium occidentale*) in Hyperglycemic Mice.** Freire GA[1], Martins CBR[1], Xavier-Filho RRB[2], Pereira LL[3], Fonseca ABO[1], Alencar NMN[1], Dionisio AP[3], Frederico MJS[1] [1]UFC, Programa de Pós-Graduação em Farmacologia, [2]UECE, Programa de Pós-Graduação em Ciências Naturais, [3]UFSC, [4]EMBRAPA

09.016 **Therapeutic potential of *Baccharis dracunculifolia* extract in managing metabolic dysregulation in rats under environmental stressors.** Kluck AJ[1], Silva GR[2], Lívero FAR[1] [1]UFPR, Lab of Cardiometabolic Pharmacology; [2]UNIPAR, Lab of Preclinical Research of Natural Products.

09.017 **Venom Phenotypes: The Role of Metalloproteases Abundance in *Bothrops jararaca* Venom Activity**. Sousa EP[1], Galizio NC[1], Lima JAF[3], Vidueiros JP[2], Sant'anna SS[2], Pimenta DC[3], Gonçalves LRC[1], Morais-Zani K[1] [1]Butantan Institute, Lab of Pathophysiology, [2]Butantan Institute, Lab of Herpetology, [3]Butantan Institute, Lab of Biochemistry and Biophysics

09.018 **Vasorelaxant Properties of *Trema micrantha* Extracts on the Aorta of Normotensive and Hypertensive Rats.** Assunção C[1], Vilhena-Silva RC[1], Rodrigues DW[1], Filho-Cechinel V[1], Souza P[1]. [1]Univali, Programa de Pós-graduação em Ciências Farmacêuticas

09.020 **Protective Action of a Broad-Spectrum Metalloprotease Inhibitor (Marimastat) on the Haemostatic Effects of *Lachesis muta muta* (South American Bushmaster) Venom in Rodents.** Proença-Hirata VS[1], Souza-Gomes GC[1], Oliveira IN[1], Dias SR[1], Ghirotti HA[1], Azevedo SNS[1], Demico PJ[1], Silva Jr NJ[2], Torres-Bonilla KA[3], Hyslop S[3], Giuffrida R[1], Floriano RS[1]. [1]Unoeste, Lab of Toxinology and Cardiovascular Research; [2]PUC-GO, Graduate Program in Environmental Sciences and Health; [3]Unicamp Dept of Translational Medicine, Faculty of Medical Sciences

09.022 *Apis mellifera* **Venom Effects Antagonized by Polysulphated Dextran.** Pinheiro AN, Souza PDN, Rocha-junior JRS, Costa PIG, Granja-Santoro GP, Magalhaes M, Monteiro-machado M, Strauch M, Melo PA. UFRJ, Lab de Farmacologia das Toxinas

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09. Natural Products and Toxinology

09.033 *Hymenaea courbaril* **Stem Bark Hydroalcoholic Extract Modulates Antioxidant Systems of Sod-3, Gst-4 and Ctl - 1,2,3 Strains in** *Caenorhabditis Elegans*. Lobo LAC[1], Santos PA[1], da Silva FC[2], Pereira P[1]. [1]UFRGS, Dpt. of Pharmacology, PPG Biológicas Sciences Pharmacology and Therapeutics; [2]São Lucas Ji-Paraná University Center.

09.038 **Seasonality Influences the Phytochemistry and Pharmacological Effect of** *Piper aduncum* **Essential Oil.** Silva KCJ[1], Assunção JAS[2], Lima AA[3], Moreira DL[2], Ramos YJ[1], Villarreal CF[1,3]. [1]UFBA, School of Pharmacy, Salvador; [2]IPJBRJ, Natural Products Lab, Rio de Janeiro; [3]FIOCRUZ-BA

09.039 *Euterpe oleracea* **Mart. and** *Alpinia zerumbet* **Hydroalcoholic Extracts reduce Lipid Accumulation and Oxidative Stress in Differentiated 3T3-L1 Murine Preadipocytes.** Beserra-Silva DL[1], Santos IB[1], Gouveia JF[1], Menezes MP[1], Oliveira BC[1], Cavalheira MA[1], Assis-Ferreira A[2], Silva SV[2], Barja-Fidalgo TC[2], Costa CA[1], Ognibene DT[1], De Bem GF[1], Resende AC[1]. [1]UERJ, Dpt of Pharmacology; [2]UERJ, Dpt of Cell Biology.

09.040 *Achyrocline satureioides* **Infusion for the Improvement of Respiratory Symptoms in Patients with Mild Infection Symptoms during COVID-19 Pandemic Period: Randomized, Placebo-Controlled, and Open-Label Clinical Trial.** Rasia FB[1], Bastos CIM[1], Dani C[1],Cechinel LR [1], Neves AHS [1], Lamers ML[2], Bianchi SL[3], Meirelles G[3], Worm PV[4], Bassani VL[5], Siqueira IR[1,2,3] [1]UFRGS, Programa de Pós-Graduação em Ciências Biológicas: Farmacologia e Terapêutica; [2]UFRGS, Programa de Pós-Graduação em Ciências Biológicas: Fisiologia; [3]UFRGS, Depto de Farmacologia; [4]UFCSPA, Depto de Cirurgia; [5]UFRGS, Programa de Pós-Graduação em Ciências Farmacêuticas

09.041 **Effects of Chronic Treatment with** *Alpinia zerumbet* **Leaf Extract on Cardiovascular Remodeling and Oxidative Stress in Experimental Renovascular Hypertension.** Menezes MP, Silva AM, Santos GD, Silva DLB, Gouveia JF, Oliveira BC, Cavalheira MA, Silva EM, Nântua M, Costa CA, Bem GF, Resende AC, Ognibene D UFRJ, Dept of Pharmacology,

09.042 **Pharmacokinetic Evaluation of Curcumin-Loaded Nanocapsules in Female Wistar Rats.** Pacheco CO[1,2], Pereira KV[1,2], Teixeira FEG[1,3], Gallarreta VS[1], Ferreira JG[1], Maciel TR[1,2], Haas SE[1,2,3] [1]Unipampa, Pharmacology and Pharmacometric Lab; [2]UFSM, Pharmaceutical Sciences Graduate Program; [3]Unipampa, Biochemistry Graduate Program

09.043 **Effects of the Monoterpene α-Phellandrene on Animal and Plant Models of Systemic Toxicity.** Pinheiro Neto FR[1], Gomes LS[1], Pereira SAP[1], Martins DFA[1], Acha BT[1], Ferraz SLNS[1], Ferreira PMP[1], Sousa JMC[2], Debia N[2], Nascimento MLLB[2], Nobre TA[2], Esteves JC[2], Almeida FRC[1]. [1]UFPI Teresina, PPG Pharmacology; [2]UFPI Teresina, PPG Pharmaceutical Sciences.

09.045 **Analysis of Antimicrobial Potential of** *Ilex paraguariensis* **Extract against ATCC** *Staphylococcus aureus*, *Escherichia coli* **and** *Pseudomonas aeruginosa* **strains.** Santos FS[1], Serbena R[1], Cieslack I[1], Ratis R[1], Lack A, Lugli YC, Vanderlinde K[1], Marchiori C[1], Tomalak C[1], Reolon J[1], Santos S[1], Ferreira L[2], Bonini J[1] [1]Unicentro, [2]UFPR

09.046 **Subacute Administration of *Citrus sinensis* Attenuates Deleterious Effects of Hypercholesterolemic Diet on Vascular Reactivity and Platelet Aggregation in Wistar Rats.** Bragança LAR, Brito FCF, Motta NAV, Lima GF, Mendes ABA, Brazão SC, Pereira NCA, Autran LJ UFF, Lab de Farmacologia Experimental

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11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology

11.001 **Advanced PBPK Insights into Gentamicin Use for Renal Injury Patients.** Rodrigues VJ, Olivo LB, Paula IS, Araújo BV UFRGS, Pharmacokinetics and PK/PD Modeling Lab, Pharmaceutical Sciences Graduate Program

11.004 **Peripubertal Exposure to Low-Dose Bisphenol A Alters Hypothalamic-Pituitary-Ovary Axis Gene Expression.** Zenzeluk J, Oliveira JM, Romano MA, Romano RM Unicentro, Dpt of Medicine

11.006 **Perceptions and Challenges in Implementing a Home Pharmaceutical Consultation Service for Managing Patients with Chronic Pain.** Litenski AC[1], Vieira ME[1], Pedroso LS[1], Baroni MP[2]. [1]Unicentro, Depto de Farmácia; [2]Unicentro, Depto de Farmácia

11.007 **Continuous Exposure to Bisphenol S Induces Changes in Acetylcholinesterase Activity and Locomotor Profile in Aged** *Drosophila melanogaster.* Meira GM[1], Musachio E[1], Prigol M[2], Bonotto N. A[1], Razzera GA[1], Barbisan F[1], Cruz I. B[1]. [1]UFSM, Lab of Biogenomics, Dpt Morphology; [2]Unipampa Uruguaiana, Pharmacological and Toxicological Evaluations Lab for Bioactive Molecules.

11.008 **PBPK Perspectives on Vancomycin Pharmacokinetics in Patients with Reduced Albumine.** Lemos JLS, Rodrigues VJ, , Olivo LB, Paula IS, Araujo BV Pharmaceutical Sciences Graduate Program; Federal University of Rio Grande do Sul; Porto Alegre; Brazil.

11.009 **Humoral Response in Healthcare Workers following COVID-19 Vaccination: A Longitudinal Study with Mono and Bivalent Boosters.** Silva VEG[1], Oliveira, HR[1], Silva DLM[2,3], Duarte, DB[4] [1]UnB, Lab of Pharmacological Assays, Dpt of Pharmacy, School of Health Sciences; [2]HUB-UnB; [3]UnB, PPG in Public Health, School of Health Sciences; [4]UnB, PPG in Tropical Medicine, School of Medicine

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11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology

11.017 **Development of a PBPK Model to Predict Drug-Drug Interactions (DDI) Following Oral Administration of Ayahuasca and Synthetic Medications.** Ribeiro GSG, Martins FS, Marcourakis T USP

11.018 **Clinical Pharmacology in Pediatric Oncology: Prevalences of Drug-Related Problems and Interactions Among Children with Leukemia.** Santos PCJL[1], Gonçalves T S[1], Fontes LF[2], Sousa AVL[3], Nascimento MMG[2] [1]Unifesp-EPM, Depto de Farmacologia, [2]UFMG, Faculdade de Farmácia, [3]Unifesp, Instituto de Oncologia Pediátrica, GRAACC.

11.019 **Is Pharmacokinetic/Pharmacodynamic Models better than Pharmacokinetic/Pharmacodynamic Indexes to Select Antimicrobial Treatments? The Ceftaroline Case.** Dias BB[1], Helfer VE[1], Olivo LB[1], Zavascki AP[2,3], Dalla Costa, T[1], de Araújo BV[1] [1]UFRGS, Pharmacokinetics and PK/PD Modeling Lab, PPG Pharmaceutical Sciences, Brazil; [2]HCPA, Infectious Disease Service, Brazil; [3]UFRGS, Porto Alegre, Dpt of Internal Medicine

11.020 **Maternal-Fetal Exposure to the Fungicide Tebuconazole Increases the Incidence of Arrhythmias in Adult Offspring.** Marques LP, Alcântara FS, Silva PL, Orts DJB, Teixeira-Fonseca JL, Conceição MRL, Roman-Campos D Unifesp, Dpt of Biophysics.

11.021 **Assessment of Meloxicam Pharmacokinetics in Male Rats using Polymeric Nanocapsules with Different Surface Charges.** Silva PS[1,2], Pacheco CO[1,2], Winkler J[1], Rodrigues A[1], Maciel TR[1,2], Teixeira FEG[3], Haas SE[1,2,3] [1]Unipampa, Pharmacology and Pharmacometric Lab; [2]UFSM, Pharmaceutical Sciences Graduate Program; [3]Unipampa, Biochemistry Graduate Program

11.022 **Model-Informed Precision Dosing for Busulfan and Methotrexate: A Modern Approach for Individualizing Drug Therapy.** Olivo LB[1], Wermann S[1], Dias BB[1], Zuckermann J[2], Pinhati AV[2], Daudt LE[3], Gregianin LJ[3], Dalla Costa T[1], Araújo BV[1] [1]PPGCF-UFRGS, Pharmacokinetics and PK/PD Modeling Lab, [2]HCPA-UFRGS Pharmacy Service, [3]HCPA-UFRGS, Pediatric Service

11.023 **Comparison of PBPK Modeling Software: Gentamicin Case Study.** Toson N, Olivo LB, Rodrigues VJ, Paula IS, Araújo BV UFRGS, Pharmacokinetics and PK/PD Modeling Lab, Pharmaceutical Sciences Graduate Program

11.024 **The Pharmacology Behind the Serotonin Syndrome.** Poian LR, Chiavegatto S[1,2] [1]ICB-USP, Dept of Pharmacology, [2]FMUSP, Dept of Psychiatry, Institute of Psychiatry

13. Pharmacology Education and Technology

13.001 **Systematic Review and Meta-Analysis on the Effects of Antidepressants in the Forced Swim Test: An App for Customized Queries on Effect Sizes and Experimental Traits.** Martins T, Hofmann ACL, Bolzan JA, Triches FF, Costa JEM, Eckert FB, Lino de Oliveira C [1]UFSC Dpt of Physiological Sciences, PPG in Pharmacology; [2]UFSC Florianópolis,.

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01. Cellular and Molecular Pharmacology

01.001 **The Effect of Adipose Tissue Secretome of Patients with Obesity under Metformin on the Differentiation and Activity of Osteoblasts.**Andrade-Santos C[1], Silva-Forte Y[1], Gonzalez-Joaquim L[1], Pantoja-Marinho C[1], Kraemer-Aguiar LG[2], Falcão-Leal PR[2], Barja-Fidalgo C[1] [1]IBRAG-UERJ, Lab of Cellular & Molecular Pharmacology, Dept of Cell Biology; [2]CePEM-UERJ, Obesity Unit

01.002 **Molecular Pharmacology of the Triazole Difenoconazole upon the Human NaV1.5 Channel.** Fogaça VS[1], Teixeira-Fonseca JL[1], Marques LP[1], Alcantara FS[1], Conceição MRL[1], Campos DR[1]. [1]Unifesp-EPM São Paulo, Dpt of Biophysics, Cardiobiology Lab

01.003 **The Co-Chaperone BAG2 Favors the Decrease Metabolic Viability Induced by Metformin in Human Neuroglioma Cells.** Duarte GZ, Carrettiero DC, Almeida MC UFABC, Center for Human and Natural Sciences

01.004 **Investigating the Expression Profile and Androgenic Regulation of Whey-Acidic Protein Four Disulfide Core 5 (Wfdc5) in Mice.** Calderaro G, Andrade AD, Camargo IA, Kushima H, Fernandes CJC, Silva EJR IBB-Unesp, Dpt. of Biophysics and Pharmacology

01.006 **Comparative Study of the Cellular Effects of Lipid Nanocarriers Based on Vegetable Butters Designed for the Treatment of Skin Wounds.** Costa ABC, Daré RG, Lopes LB [1]ICB-USP, Dept of Pharmacology

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01. Cellular and Molecular Pharmacology

01.007 **Endogenous Hydrogen Sulfide (H_2S) Modulates α-Amylase (AM) Secretion by Murine Submandibular and Sublingual Salivary Glands** *ex vivo.* Dichirico JL, Marques LA, Oliveira-Alves MC, Santos LG, Teixeira SA, Costa SKP, Muscará MN. USP, Dpt of Pharmacology

01.008 **Treatment with Resveratrol in The Pre-Gestational and Gestational Phases and Breastfeeding Reduces Matrix Metalloproteinase (MMP)-2 Activity in the Cardiovascular System and Hypertension in Adult Offspring.** Oliveira RR, Mello MMB, Gomes BQ, Rocha EV, Castro MM FMRP-USP, Dept of Pharmacology

01.009 **Co-localization of the Male Contraceptive Target EPPIN and its Partner SEMG1 in Human and Mouse Ejaculated Spermatozoa.** Santos BR[1], Mariani NAP[1], Santos NCM[1], Themer ACF[1], Santos AGP[2], Daroz GA[2], Teixeira TA[3], Hallak J4, Silva EJR[1] [1]Unesp, Dpt of Biophysics and Pharmacology; [2]Unesp, Dpt of Gynecology and Obstetrics; [3]Unifap, Division of Urology, Dpt of Surgery, University Hospital; [4]HC-FMUSP, Division of Urology, Dpt of Surgery,

01.010 **Immunomodulatory Profile of Recombinant Lectin (r-Frutapine) in Murine Macrophages Raw 264.7.** Rabelo LM[1], Sousa FD, Macedo FS[1], Silva JMRD[1], Braga IDS[1], Correia MMDO[1], Carvalho JVAD[2], Batista TO[2], Moreira ACDOM[2], Alencar NMND[1]. [1]UFC – Center for Research and Development of Medicines; [2]Unifor – Experimental Biology Center

01.011 **Tocolytic Activity of the 8-Formyl-3',5-Dihydroxy-7-Methoxy-6-Methyl-Flavone and 3'-Formyl-3,4',6'-Trihydroxy-2'-Methoxy-5'-Methylchalcone Mixture Isolated from Roots of** *Piper montealegreanum* **Yunck (Piperaceae) in Wistar Rats:** *In vitro* **and** *In silico* **Assays.**Oliveira LN[1],

Martins AMO[1], Figueiredo IAD[1], Felício IM[1], Cavalcanti AMT[2], Fernandes JM[2], Gomes LES[2], Silva JLV[3], Santos BVO[4]; Cavalcante, FA[1,5] [1]PPgPNSB/CCS/UFPB; [2]PIBIC/CNPq/UFPB; [3]FMO, 4DCF/CCS/UFPB; [5]DFP/CCS/UFPB

08. Respiratory and Gastrointestinal Pharmacology

08.008 **Potential Gastroprotective Effect of *Tanacetum parthenium* and parthenolide in rodents.** Ferraz CV[1], Dalla Vecchia CA[1], Miorando D1[1] Von Dentz AL[1], Simomura VL[1], Buzatto MV[1], Oss C[1], Maccagnan JC[1], Steffler AM[1], Bohnen LC[1], Pedruzzi T[1], Roman MI[1], Silva LM[2], Roman Junior WA[1] [1] Unochapecó, Lab of Pharmacognosy, [2]UFSC, Lab of Pharmacology of the Gastrointestinal

08.009 **Molecular Docking Studies in the Effects Gastroprotective of a Flavonoid-Rich Subfraction from *Fridericia chica.*** Steffler AM[1] Miorando D[1] Dalla Vecchia CA[1] Maccagnan JC[1] Veloso JJ[1] Simomura VL[1] Buzatto MV[1] Ferraz CV[1] Somensi LB[2] Silva LM[3] Roman Junior WA[1] [1]Unochapecó, Lab of Pharmacognosy; [2]Uniarp, Postgraduate Program in Development and Society; [3]UFSC, Lab of GIT Pharmacology and Interactions

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01. Cellular and Molecular Pharmacology

01.017 **Characterization of cAMP Efflux Through ABCC/MRP Transporters in C2C12 Skeletal Muscle Cells.** Satori NA, Pacini ESA, Godinho RO Unifesp-EPM, Division of Cellular Pharmacology, Dept of Pharmacology

01.019 **The Seminal Plasma Protein Semenogelin-1 Inhibits Mouse Sperm Hyperactivation by Targeting the CatSper Channel.** Mariani NAP[1], Santos NCM[1], Andrade JJ[1], Santos BR[1], Calderaro G[1], Lishko P[2], Silva EJR. [1]IBB-Unesp-Botucatu, Dept. of Biophysics and Pharmacology; [2]Washington University in St. Louis, Dept. of Cell Biology and Physiology

01.020 **Effects of 6-Nitrodopamine on the *ex vivo* Secretion of a-Amylase from Murine Salivary Glands Induced by Both Adrenergic and Cholinergic Pathway Activation.** Oliveira-Alves MC[1], Teixeira SA[1], Costa SKP[1], Britto-Júnior J[2], de Nucci G[1,2], Muscará MN[1] [1]ICB-USP, Lab of Biochemical Pharmacology of Free Radicals, Inflammation and Pain, Dept of Pharmacology; [2]FCM-Unicamp, Dept of Pharmacology

01.021 **Pioglitazone Combined with Cold Exposure Increase Proteasome Activity and Modulate Intracellular Peptides Profile in Adipose Tissues.** Valdivia LFG[1], Jardim GFR[2], Moreira RJ[2], Ferro ES[3], Reckziegel P[1,2]; [1]Unifesp, PPG Pharmacology; [2]FCF-USP, Dpt of Clinical and Toxicological Analysis [3]ICB-USP, Dpt of Pharmacology

01.022 **Influence of Interval Treatment with Sulforaphane on the Proliferation of Neural Progenitor Cells.** Menezes IO, Viana DZA, Lima LS, Kawamoto EM ICB-USP

01.023 **Evaluation of Phenotypic Changes Induced by Lipoxin in Macrophages Derived from Breast Cancer.** Duncan-Moretti J, Cunha-da-Costa H, Villanova Amaral MF, De-Brito NM, Simões, RL, Barja-Fidalgo, TC [1] UERJ, Lab de Farmacologia Celular e Molecular,

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02. Neuropharmacology

02.006 **Effects of Hydroalcoholic Extracts from *Targetes erecta* L. Aerial Parts over Comportamental Parameters of Anxiety and Depression in Mice with Sterptozotocin-induced Alzheimer.** Pasuch LCP[1], Araújo RPS[1], Silva LMF[1], Ferrandin G[1], Silva LM[2], Cazarin CA[1], Souza MM[1] [1]NIQFAR-Univali, Chemical Pharmaceutical Research Center, [2]UFSC, Postgraduate in Pharmacology - Dept of Pharmacology

02.014 **Involvement of NMDA Glutamatergic Receptors in Memory Processes Deficits and Aversion Induced by Stress.** Rodrigues SS, Resstel LBM FMRP-USP, Dept of Pharmacology

02.015 **Neuroprotective Effects of Clarified Açaí (*Euterpe oleracea* Martius) on Anxiety-Like and Depression-Like Behaviors in Mice with Induced Menopause.** Rodrigues RAR[1], Bittencourt LO[1], Moraes RP[1], Kobayash NHC[2], Maia CSF[2], Rogez H[3], Lima RR[1] [1]UFPA, Lab of Functional and Structural Biology; [2]UFPA, Lab of Pharmacology and Inflammation, Institute of Health Sciences; [3]UFPA, Center for Valorization of Amazonian Bioactive Compounds, College of Biotechnology

02.016 **Effect of Long-Term Administration of Ivermectin and Hydroxychloroquine on Memory and DNA Damage in Wistar Rats.** Fenilli GP[1]; Santos MLC[1]; Medeiros EB[1]; Lídio AV[1]; Jesus LC[1]; Boaventura A[1]; Robson H[1]; Possamai OL[2]; Andrade VM[2]; Budni J[1] [1]Unesc, Lab of Experimental Neurology, Graduate Program in Health Sciences; [2]Unesc, Lab of Translational Biomedicine Graduate Program in Health Sciences

02.017 **Cellular Stress Response in Human Neuroglioma: Role of BAG2 Protein Under Brefeldin A Treatment.** de Oliveira LS, Almeida MC, Carrettiero DC. UFABC, Centre for Human and Natural Sciences

02.018 **Allopregnanolone does not change the mRNA Expression of BDNF and GABAA Receptor Subunits in the Prefrontal Cortex of Rats in a Hereditary Model of Depression.** Barth RA[1], Almeida FB[2,3], Heidrich N[2], Freese L[4], Nin MS[1], Barros HMT[1,2] [1]UFCSPA, Dpt Pharmacosciences; [2]UFCSPA Porto Alegre, PPG Health Sciences: Pharmacology and Toxicology; [3]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics; [4]HMV Porto Alegre, Lab of Genetics and Molecular Biology

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02. Neuropharmacology

02.021 **The Activation of CB1 Receptor Controls Epigenetic Mechanisms during Fear Memory Reconsolidation.** Bergmann MF, Raymundi AM, Sohn JMB, Stern CAJ1. UFPR Curitiba, Dept of Pharmacology, Biological Sciences Center.

02.023 **The Implications of Partial and Total Sleep Deprivation in Old Mice and its Relation with SUMO.** Machado GM[1], Canever JB[1], Queiroz LY[1], Stahler CU[1], Griebner G[1], Gisoni JM[1], Cimarosti HI[1,2] [1]UFSC, Postgraduate Program in Neuroscience, [2] UFSC, Postgraduate Program in Pharmacology

02.025 **Oxytocin Receptors in the Central Amygdala are Necessary for the Development of Stress-Related Alterations induced by Restraint Stress in Rats.** Suzuki GMF, Belém-Filho IJA, Frias AT, Silva GVL, Zangrossi-Junior H Corrêa FMA FMRP-USP

02.029 **Paraprobiotics Blend: Potential Antioxidant Against Intranasal MPTP-Induced Oxidative Stress.** Gomes J, Severo ER, Arena RVP[1], Comis-Neto AA[1], Amaral TS, Pesarico AP, Rosa SG, Pinton S Unipampa-Uruguaiana

02.030 **Paraprobiotic *L. casei* Enhances Long Term Memory in an Alzheimer's Disease Model.** Rodrigues ES, Meus SS, Arena RVP, Gomes J, Comis-Neto AA, Pesarico AP, Jesus GFA, Simone Pinton Unipampa-Uruguaiana

02.031 **Reserpine and PCPA Reduce the Thermal Tolerance in *Drosophila melanogaster.*** Bressan GN[1], Cardoso PM[2], Recziegel J[3], Santos G[1,2], Fachinetto R[1,3]. [1]UFSM, PPG Ciências Biológicas: Bioquímica Toxicológica; [2]UFSM, Curso de Farmácia; [3]UFSM, PPG Farmacologia

02.032 **Clonazepam and Zolpidem: What is the Role of Long-Term Treatment in the Memory of Mice?** Lidio AV[1], Boaventura A[1], Fenilli GP[1], Medeiros EB[1], Chaves Júnior HRO[1], Cardozo J[1], de Jesus LC[1], Budni J[1]. [1]Unesc, Lab of Experimental Neurology, Graduate Program in Health Sciences,

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03. Psychopharmacology

03.014 **Ayahuasca Enhances Fear Extinction in Female and Male Rats by the Activation of Infralimbic Cortex 5-HT2A and 5-HT1A Receptors.** [1]Werle I, dos Santos ALA[1], dos Santos RG[2], Hallak Jaime EC[2], Bertoglio LJ[1] [1]UFSC, Farmacologia, Florianópolis, SC; [2]USP-RP, Neurociências e Ciências do Comportamento, Universidade de São Paulo, Ribeirão Preto, SP.

03.015 **Enhancing Memory Destabilization enables the Attenuation of Traumatic-Like Memories in Female and Male Rats Through Reconsolidation Blockade.** Soares LA[1,2], Gazarini L[3], Guimarães FS[4], Bertoglio LJ[1,2] [1]UFSC, Lab of Neuropsychopharmacology, Department of Pharmacology; [2]UFSC, [3]UFMS-Três Lagoas; [4]FMRP-USP, Dept of Pharmacology

03.016 **Lack of Involvement of the 5-HT2A Receptor in the Effect of Ayahuasca on Fear Memory Reconsolidation.** Daneluz DM[1], Silveira GO[2], Yonamine M[2], Stern CAJ[1]. [1]UFPR, Dept of Pharmacology; [2]FCF-USP

03.017 **Molecular Mechanisms and Pharmacological Agents Associated with Suicidal Attempts.** da Rosa PH[1,2], Mezzomo G[1,2], Schons T[1,2], Rocha G[1], Ziani PR[1], Baldez DP[1], Rosa AR[1,2,3] [1]HCPA, Lab of Molecular Psychiatry, [2]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics, [3]UFRGS, Dpt of Pharmacology

03.018 **Evaluation of the Antidepressant-Like Activity of Crude and Micronized Naringin.** Almeida ER[1], Oliveira PV[3], Hermes ME[1], Provinelli AC[1], Daniel CF[1], Kuhn KZ[1], Fontana T[1], Tavares VB[1], Mazon S[1], Oliveira JV[2], Muller LG[1]. [1]Unochapecó, Genetics and Ecotoxicology Lab; [2]UFSC, PPG Chemical Engineering; [3]UTFPR, Research Center for Rheology and Non-Newtonian Fluids

03.019 **Effect of Pioglitazone in the Scopolamine induced Cognitive Impairment of Female Rats.** Fernandes SMA, Lima TJ, Vital MABF. UFPR, Dpt of Pharmacology

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03. Psychopharmacology

03.020 **Effects of Fluoxetine Treatment, Sex, and Predisposition to Manifest Depressive-like Behaviors on the Expression of microRNA 144-3p in the Blood of Rats.** Almeida FB[1] [2], Heidrich N[1], Silva IAG[1], Freese L[3], Pulcinelli RR[2], Gomez R[2], Nin MS[1], Barros HMT[1]. [1]UFCSPA, PPG Health Sciences: Pharmacology and Toxicology; [2]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics; [3]HMV, Lab of Genetics and Molecular Biology

03.021 **A Sex-Specific Involvement of Microglia and PPARγ Receptor in the Reconsolidation-Impairing Effect of Δ^9-Tetrahydrocannabinol.** Raymundi AM[1], Cardoso NC[1], Guimarães FS[2], Bertoglio LJ[3], Stern CAJ[1] [1]UFPR Curitiba, Dpt of Pharmacology, [2]FMRP-USP Dpt of Pharmacology, [3]UFSC Dpt of Pharmacology

03.022 **The Effects of Roflumilast on Memory Consolidation and Reconsolidation Depends on the Memory Nature.** Sohn JMB[1], Prickaerts J[2], Stern CAJ[1] [1]UFPR, Dept of Pharmacology; [2]Peitho Translational, Drug Discovery and Development Consulting

03.023 **A Multimodal Pharmacological Approach to Disrupting Intense and Generalized Fear Memories in Female Rats.** Guterres FS, Soares LA, Bertoglio LJ UFSC, Lab of Neuropsychopharmacology, Dept of Pharmacology

03.024 **Evaluation of Changes in Spatial Memory in Mice Pharmacologically Treated with Antimalarials and Healed of Malaria Induced by Plasmodium berghei Strain ANKA.** Moura Dias Júnior [Q1,2], Pires BB[1,3] [1]NIMFAR-Fiocruz-Rondônia, Lab of Neuro and Immunopharmacology, [2]INCT-NIM-Fiocruz, [3] São Lucas University Center –

03.025 **Passion Flower Extract reduces Withdrawal Symptoms in Morphine-Dependent Mice.** Leal MB[1,2,3], Izolan LR[3], Laurentino AOM[1,2], Marques D[3], Arbo MD[4], Elisabetsky E[5], Konrath EL[4] [1]UFRGS, PPG Biological Sciences: Pharmacology and Therapeutics; [2]UFRGS, Dpt of Pharmacology; [3]UFRGS, PPG Biological Sciences: Neuroscience; [4]UFRGS, PPG Pharmaceutical Sciences; [5]UFRGS, PPG Biochemistry

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04. Inflammation and Immunopharmacology

04.007 **Evaluation of NLRP3 Expression in an *in vitro* Model of Preeclampsia.** Bizzotto JQ, Sandrim VC, Nunes PR. IBB-Unesp-Botucatu, Dept of Biophysics and Pharmacology

04.009 **Region-Specific Regulation of Matrix Metalloproteinases in the Mouse Epididymis to LPS-Induced Inflammation.** Martini PV[1], Camargo IA[1], Andrade AD[1], Ferreira CT[1], Portela LMF[2], Kushima H[1], Justulin-Junior LA[2], Fernandes CJC[1], Silva EJR[1]. [1]Unesp-Botucatu, Dpt of Biophysics and Pharmacology; [2]Unesp-Botucatu, Dpt of Structural and Functional Biology.

04.015 **The Fixed Oil from the Seeds of *Hancornia speciosa* Gomes Possesses Anti-Inflammatory Properties.** Palmeira DN[1], Abreu FF[1], Santos EJ[2], Camargo EA[1] [1]UFS, Dept of Physiology; [2]UFS, Dept of Chemical Engineering

04.016 **Effects of Stem Cells Derived from Apical Papilla versus Dexamethasone in a Mouse Model of Atopic Dermatitis.** Rebelo IN, Neculqueo GW, Estrázulas M, Campos MM PUCRS, PPG Medicine and Health Sciences.

04.017 **Cognitive Impairment in a Sepsis-Induced Pneumonia Model and the Neuroprotective Role of Rosiglitazone.** Castro LVG[1,2], Castro-Faria-Neto HC[1,2], Bozza PT[1,2], Schlesinger GG, Gonçalves-de-Albuquerque CF[1,3], Silva AR[1,2] [1]IOC-Fiocruz, Lab de Imunofarmacologia, [2]IOC-Fiocruz, Programa de Pós-Graduação em Biologia Celular e Molecular, [3]UNIRIO, Lab de Imunofarmacologia

04.018 **Neutrophils Polarization as a New Approach for Cancer Treatment.** Amorim NS[1], Amorim CS[1], Valença LS[1], Almeida PP[2], Moraes JA[1]. [1]ICB-UFRJ; [2]UERJ, Depto de Biologia Celular

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04. Inflammation and Immunopharmacology

04.027 **Topical Administration of Gold Nanoparticles (AUNPs) facilitates Resolution of Lung Fibrosis *in silica*-Challenge Mice.** Pezzella-Ferreira GN[1], Ferreira GG[1], Ribeiro NBS[1], Santana ACC[1], Arantes ACS[1], Capelozzi VL[2], Ball L[3], Martins MA[1], Silva PMR[1] [1]FIOCRUZ, Lab of Inflammation, [2]FMUSP, Lab of Pulmonary Genomics, [3]University of Genova Dept of Integrated Surgical and Diagnostic Sciences

04.031 *Tagetes erecta* **L.: A Traditional Medicine Effective in Inflammatory Process Treatment.** Vaz CR[1], Benvenutti L[1], Goldoni, FC[1], Nunes R[1], Schneiker GS[1], Rosa GA[1], Furtado K[1], Garcia L[1], Quintao NLM[1], Santin JR[1] [1]Univali

04.033 **Effect of *Schinus terebinthifolius* Raddi and Gallic Acid on the Inflammatory Response.** Nascimento SN[1,2], Pádua TA[2], Correa LB[2], Costa TEMM[2], Pereira FMS[2], Heringer AP4, Figueiredo MR[4], Manchope MF[5], Verri, Jr WA[5], Henriques MG[1,2,3], Rosas EC[1,2] [1]Farmanguinhos-Fiocruz, Lab of Applied Pharmacology; [2]IBRAG-UERJ, Postgraduate Program in Biosciences; [3]IBRAG-UERJ, Lab of Cellular and Molecular Pharmacology, Dept of Cellular Biology; [4]Farmanguinhos-Fiocruz, Lab of Natural Products; [5]UEL, Dept of Pathology, Center for Biological Sciences

04.034 **Therapeutic Potential of *Fridericia chica* Bonpl. L. G. Lohmann in Murine Pneumonia: A Comparison Between Hydroethanolic Crude Extract and a Flavone-Rich Fraction.** Brito MASM[3,4], Chagas, MSS[1,3], Moragas-Tellis CJ[1], Faria-Neto HCC[2], Bozza PT[2], Silva AR[2,4], Behrens MD[1], Gonçalves-de-Albuquerque CF[2,3,4] [1]Fiocruz, Lab of Natural Products for Public Health; Institute of Pharmaceutical Technology; [2]Fiocruz, Lab of Immunopharmacology; [3]Unirio, Dept of Physiological Science; Biomedical Institute; 4UFF-Niterói, PPG Neuroscience.

04.036 **Cytokine and Oxidative Stress Responses of the Mouse Epididymis to LPS from E. coli: Insights from an *ex vivo* Model of Epididymitis.** Andrade AD[1], Camargo IA[1], Martini PV[1], Kushima H[1], Avellar MCW[2], Silva EJR[1] [1]IBB-Unesp-Botucatu, Dept of Biophysics and Pharmacology, [2]Unifesp-EPM, Dept of Pharmacology

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05. Pain and Nociception Pharmacology

05.034 **Comparative Study of the Effects of Ibuprofen, Acetaminophen, and Codeine in a Model of Orofacial Postoperative Pain in Male and Female Rats.** Zortea JM, Baggio DF, da Luz FMR, Lejeune VBP, Spagnol FJ, Chichorro JG UFPR, Dept of Pharmacology, Biological Sciences Sector

05.037 **Therapeutic Effect of an IL-10 Mimetic in Experimental Model of Fibromyalgia.** Silva TM[1], Vaz ER[2], Couto ACG[1], Goulart Filho LR[2], Silva CR[1] [1]UFU, Grupo de Pesquisa em Analgesia e Inflamação, Lab de Bioquímica e Toxinas Animais, Graduate Program in Genetics and Biochemistry, Institute of Biotechnology; [2]UFU, Lab de Nanobiotecnologia, Institute of Biotechnology

05.038 **Investigating AT2 Receptor Antagonism as a Therapeutic Strategy for the Treatment of Antihypertensive-Induced Acute Gout Attack.** Vieira TN[1], Silva CR[1] [1]UFU, PPGGB Graduate Program in Genetics and Biochemistry, Grupo de Pesquisa em Analgesia e Inflamação

05.042 **Green Tea induces Antinociceptive Effects in Mice by Restoring Redox Signaling in a Model of High-Fat Diet-Induced Neuropathy.** Silva GSA[1], Macêdo APA[1], Gonçalves MS[1], Couto RD[1], Soares MBP[2], Viana MDM[1], Villarreal CF[1] [1]UFBA Salvador, School of Pharmacy; [2]FIOCRUZ-BA, Salvador.

05.043 **Investigation of the Nociceptive Effects of the Sars-Cov-2 Spike Protein in Mice: A Potential Model for Post-Covid Syndrome.** Almeida BL[1], Pereira S[1], Vitorino LC[1], Colodeti LC[1], Manjavachi MN[2], Figueiredo CP[1], Passos GF[1], Costa R[1]. [1]UFRJ, Ciências Farmacêuticas, Brasil. [2]UFRB, Brasil.

05.044 **Study and Development of New Candidates for Anti-inflammatory and Antinociceptive Drugs that Inhibit the P2X7 Receptor.** Salles JP[1], Galvão R[1], Miranda AL[1], Faria R[2] [1]UFRJ Lab

de Estudos em Farmacologia Experimental, [2]Fiocruz, Lab de Avaliação e Promoção da Saúde Ambiental

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06. Cardiovascular and Renal Pharmacology

06.009 *In vivo* **Administration of Insecticide Pyrethroids in Wistar Rats Causes Pyrethroid-Specific Morphometric Changes in the Heart.** Sousa GM, Orts DJB, Teixeira-Fonseca JL, Silva PL, Conceição MRL, Marques LP, Alcântara FS, Roman-Campos D Unifesp-EPM, Lab of CardioBiology, Dept of Biophysics

06.010 **Baroreflex Evaluation of Rats After High Salt Intake and Subjected to Acute and Repeated Treatment with Folic Acid.** Rossato GO[1], Miguel MVO[1], Santos LB[2], Rodrigues SS[2], Moraes-Neto TB[2], Resstel LBM[2], Pelosi GG[1] [1]UEL, Dept of Physiological Sciences, [2]USP, Dept of Pharmacology

06.011 **Cardioprotective Effects of Trans-4-Methoxy-Beta-Nitrostyren, a Soluble Guanylate Cyclase Stimulator, in Rat Myocardial Ischemia-Reperfusion Model.** Dias D[1], Santiago YA[1], da Silva TW[1], Aguiar AI[1], Pinto GI[2], Borges R[3], Lahlou S[1]. [1]UFC, Dpt of Physiology and Pharmacology, [2]UFPE, Dpt of Physiology and Pharmacology, [3]UFPA, PPG in Pharmaceutical Sciences.

06.014 **O-glyconacylation Increases the Gelatinolytic Activity of Matrix Metalloproteinase (MMP)-2 in Aortas Treated with Glucosamine and Thiamet G.** Bueno EKP[1], Neves VGO[1], Blascke de Mello MM[1], Ferreira GM[2], Tostes RC[1], Castro MM[1]. [1]FMRP-USP, Dept of Pharmacology; [2]FCF-USP, Dept of Clinical and Toxicological Analysis.

06.015 **Potential Dual Action of the Pyrimidinone STICl-Et as a Calcium Channel Blocker and alpha1-Adrenergic Receptor Antagonist**
Silva SB1; Silva MCC1, SIlva-Júnior JA1, Feitosa SGD2, dos Anjos JV2, AraújoAV1 [1] UFPE Vitória de Santo Antão, Centro Acadêmico de Vitória (CAV); [2] UFPE Recife, Dpt of Fundamental Chemistry.

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06. Cardiovascular and Renal Pharmacology

06.039 **Intercalated Discs Disassembly During and After Sepsis: Is N-Cadherin a Marker of Cardiac Dysfunction?** Hahmeyer MLS, Silva-Santos JE UFSC, Lab of Cardiovascular and Smooth Muscle Biology, Dpt of Pharmacology

06.041 **The Influence of HOE140, a Bradykinin B2 Receptor Antagonist, on the Pressor Effect of Norepinephrine in Septic Rats.** Cunha LMA, da Silva-Santos JE UFSC, Lab of Cardiovascular and Smooth Muscle Biology, Dept of Pharmacology

06.042 **Reactive Oxygen Species-Driven Histone 3.1 Depletion Promotes Endothelial to Mesenchymal Triggered by Tumor Necrosis Factor α.** Kayzuka C[1] [2], Palma FR[2], Sakiyama MJ[2], Lacchini R[1] [3], Bonini MG[2]. [1]FMRP-USP, Dept of Pharmacology; [2]Feinberg School of Medicine, Dept of Medicine, Division of Hematology Oncology, and the Robert H. Lurie Comprehensive Cancer Center of Chicago, Northwestern University; [3]EERP-USP, Dept of Psychiatric Nursing and Human Sciences

06.043 **Rosmarinic Acid: A Study of the Mode of Action and Possible Targets Through Molecular Docking.** Macarini AF, Mariano LNB, Silva RCMVAF, Corrêa R, Souza P Univali, Programa de Pós-Graduação em Ciências Farmacêuticas,

06.044 **A Contractile Factor Released by the Perivascular Adipose Tissue (PVAT): Pharmacological Characterization and Proof of Effective Modulation of Vascular Tone.** Gomes-Pereira L, da Silva-Santos JE UFSC, Lab of Cardiovascular and Smooth Muscle Biology, Dept of Pharmacology

06.047 **Antioxidant and Vasodilator Properties of Cilostazol in a Model of Metabolic Syndrome.** Brazão SC[1], Lima GF[1], Mendes ABA[1], Autran LJ[1], Pereira NCA[1], Bragança LAR[1], Souza ARS[1], Alves DS[1], Stein AT[1], Andrade GP[2], Alexandre-Santos B[2,3], Magliano DC[2], Motta NAV[1], Brito FCF[1]. [1]UFF, Dpt of Physicology and Pharmacology, LAFE. [2]UFF, Dpt Morphology, NuPeMM. [3]UFF, Dpt of Physicology and Pharmacology, LACE.

06.048 **The Reduction of Isolated Rat Atria Rate Caused by (±)-Propranolol and (±)-4-NO_2-Propranolol Results from The Blockade of the 6-Nitrodopamine Receptor.** Oliveira DL[1], Fuguhara V[1], Britto-Júnior J[1], Lima AT[1], Alves BL[1], Lorenzon F[1], Frecentese F[3], Sparaco R[3], Santagada V[3], Caliendo G[3], Pupo AS[2], Antunes E[1], De Nucci G[1] 1. FCM-Unicamp, Dept of Pharmacology [2]ICB-USP, Dept of Pharmacology, [3]University of Naples Federico II

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06. Cardiovascular and Renal Pharmacology

06.049 *In vivo* **Exposure to the Pesticide Tebuconazole causes Excessive Reactive Oxygen Species in the Heart and Causes Arrythmias.** Teixeira-Fonseca JL[1], Souza DS[2], Conceição MRL[1], Marques LP[1], Durço AO[1], Silva PLD[1], Joviano-Santos JV[3], Santos Miranda A4, Roman-Campos D[11]Unifesp-EPM, PPG in Pharmacology, Dpt of Biophysics; [2]UFS, Dpt of Physiology, [3]FCM-MG, [4]UFMG, Dpt of Physiology and Biophysics

06.050 **Oral Apigenin does not Prevent Cardiometabolic Changes in Middle-Aged Rats induced to Obesity: Preliminary Data.** Stein DJ[1,2], de Castro JM[1,2], Türck P[3], Melo AS[2], Gomez VBG[2], Martins IAS[2], Silveira BL[2], Stieven A[1,2], Marçal MM[2], Drosdowski D[3], Araujo ASR[3], Torres ILS[1,2] [1]UFRGS - Programa de Pós-Graduação em Medicina: Ciências Médicas; [2]HCPA, Lab de Farmacologia da Dor e Neuromodulação: Investigações Pré-Clínicas, Centro de Pesquisa Experimental; [3]UFRGS, Lab de Fisiologia Cardiovascular, Instituto de Ciências Básicas da Saúde

06.051 **Cardioprotective Effects of Subacute Inosine Administration in a Hypercholesterolemic Model: Role of NRF2 and Calcium Signaling.** Lima GF[1], Brazão SC[1], Autran LJ[1], Stein AT[1], Antonucci GM[1], Pereira NCA[1], Mendes ABA[1], Bragança LAR[1], Freitas CO[1], Souza ARS[1], Alves DS[1], Alexandre-Santos B[2,3], Magliano DC[2], Motta NAV[1], Brito FCF[1] [1]UFF, Lab de Farmacologia Experimental, Dpto de Fisiologia e Farmacologia, [2]UFF, Núcleo de Pesquisa em Morfologia e Metabolismo, Dpto de Morfologia, [3]UFF, Lab de Ciências do Exercício, Dpto de Fisiologia e Farmacologia

06.052 **Vascular Protective Effects of Inosine are Associated with Calcium Signaling and Endothelial Nitric Oxide Synthase Activation in Hypercholesterolemia.**
Lima GF, Brazão SC, Stein AT, Antonucci GM., Mendes ABA, Autran LJ, Pereira NCA, Bragança LAR, Freitas CO, Souza ARS, Motta NAV, Brito FCF. UFF, Lab de Farmacologia Experimental, Dept de Fisiologia e Farmacologia

06.053 **Increased Matrix Metalloproteinase (MMP)-2 Activity Induced by Neonatal Exposure to Hyperoxia is Prevented by Humanin Analog (HNG), thus Preventing Arterial Remodeling.** Blascke de Mello MM[1], De Sousa Do Outeiro C[2], Girault-Sotias PE[2], Deprez A[2], Cloutier A[2], Luu TM[3], Dartora DR[2], Castro MM[1], Nuyt AM[2] [1]FMRP-USP, Dept of Pharmacology; [2] Université de Montréal, Fetomaternal and Neonatal Pathologies Axis, CHU Sainte-Justine Research Center; [3]Université de Montréal, Dept of Pediatrics, CHU Sainte-Justine

06.054 **Vascular Hyporesponsiveness in Severe Sepsis is Associated with Nitric Oxide-Dependent Expression of G-Protein Receptor Kinase.** Dal-Secco D[1], Olivon VC[2], Corrêa T[1], Celes MRN[3], Akinaga J[4], Lima V[4], Oliveira AM[2], Rossi MA[3], Pupo AS[4], Cunha FQ[2], Sordi R[1], Assreuy J[1] [1]UFSC – PPG in Pharmacology, [2]FMRP-USP –Pharmacology and [3]FMRP-USP –Pathology, [4]IBB-Unesp – Pharmacology

06.055 **Involvement of muscarinic-M2 and α2-adrenergic receptors in the antihypertensive response of free and β-cyclodextrin-complexed 6-methyl-5-hept-2-one in rats.** Santos MEP[1], Rego AF[3,6], Silva PHS[3], Martins HRS[3], Portela ES[3,6], Soares HS[3], Timah AB[4], Mendes MB[3], Silva IS[2], Lima GS[2], Fior-Chadi DR[5], Costa Kalil AM[3], Oliveira AP[3,6] [1]UFPI, Dept of information, Environment, Health and Food Production, Rede Nordeste de Biotecnologia, 2UFPI, Lab of Organic Geochemistry, Dept of Chemistry, [3]UFPI, Lab of Cardiovascular Pharmacology, Medicinal Plant Research Center, [4]UFPI, Postgraduate Program in Biotechnologia, Rede Nordeste de Biotecnologia, [5]IB-USP, Dept of Physiology, [6]UFPI, Post graduate program in Pharmacology, Teresina, Brasil.

06.056 **Effects of Subacute Administration of Tributyltin on Vascular Reactivity and Platelet Aggregation in Male and Female Wistar Rats.** Mendes ABA[1] [2], Freitas CO[2], Souza ARS[2], Autran LJ[2], Brazão SC[2], Stein AT[2], Lima GF[2], Pereira NCA[2], Rosa GA[2], Marostica E[2], Alves LM[1], Motta NAV[2], Brito FCF[2] [1]UFRJ - Research, Innovation and Development Group in Experimental Endocrinology; [2]UFF - Lab of Experimental Pharmacology[1]

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08. Respiratory and Gastrointestinal Pharmacology

08.023 **Evaluation of the Gastroprotective Effect of Hydroalcoholic Extract from *Spondias purpurea* leaves in mice.** Nunes RKS[2], Willrich CH[1], Blumhagen T[2], Longo B[1], da Silva LM[1]. [1]LAPHATI-UFSC, Lab of Pharmacology Applied to the Gastrointestinal Tract and its Interactions, Pharmacology Dept, [2]Univali, Postgraduate Program in Pharmaceutical Sciences

08.024 **Inhaled Aldosterone does not Reduce Leukocyte Invasion in Lung of Mice with Acute Respiratory Distress Syndrome.** Rodrigues SF Santos AA, Oliveira MA, Tavares-de-Lima W, Oliveira TD. ICB-USP, Dpt of Pharmacology

09. Natural Products and Toxinology

09.047 **Bacteria Recovered from the Ascidian Ecteneinascidia sp. (Ceará) as a Source of Anticancer Compounds.** Ferreira EG[1], Furtado KAK[2], Costa-lotufo LV[1], Jimenez PC[2] [1]ICB-USP, Dept of Pharmacology; [2]Unifesp, Dept of Marine Sciences; Sea Institute

09.048 **Tartrolon D Induces Immunogenic Cell Death in Melanoma.** Brito TL[1], Edson EA[1], Florêncio KGD[1], Garnique ADMB[2], Machado-Neto JA[2], Mesquita-Luiz JP[3], Filho JCA[3], Cunha FQ[3], Haygood M4, Wilke DV[1]. [1]UFC, Drug Research and Development Center, Dept of Physiology and Pharmacology, School of Medicine; [2]ICB-USP, Dept of Pharmacology; [3]CRID-FMRP-USP; [4]University of Utah

09.049 **Chemical Characterization of *Arthrospira platensis* Powder and its Correlation with Preventive Effects on Intestinal Reactivity in the Ileum of Obese Rats.** Diniz AFA[1], Francelino DMC[2], Ravilly RAA[1], Claudino BFO[2], Barros BC[1], Abreu LS[1], Nascimento YM[1], Tavares JF[1,3], Silva BA[1,3] [1] UFPB, PPG Bioactive Natural and Synthetic Products; [2]UFPB, Health Sciences Center,; [3]UFPB, Dept of Pharmaceutical Sciences, Health Sciences Center

09.050 **Hydroalcoholic Extract of *Spondias purpurea* L. Promotes Gastric Healing Effect in Rats in a Chronic Ulcer Model.** Nunes RKS[1], Eisendecker HI[1], Cota HJS[1], da Silva LM[1], Santiago L[1], Longo B[1], Silva TFQ[1], Willrich CH[2], Benvenutti L[1], Santin JR[1], Olinda LML[1], Venzon L[1], França

TS[1], da Silva LM[2]. [1]Univali, Postgraduate Program in Pharmaceutical Sciences, [2]UFSC-LAPHATI, Lab of Pharmacology Applied to the Gastrointestinal Tract and its Interactions, Pharmacology Dept

09.051 **Anticancer Potential of Prodiginins Isolated from Microorganisms Associated with *Zoanthus sociatus* of the Brazilian Oceanic Islands.** Florêncio KGD, Siqueira EA, Pinto FCL, Pessoa ODL, Wilke, DV UFC

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09. Natural Products and Toxinology

09.003 **Evaluation of the Use of *Syzygium aromaticum* Essential Oil in Inhibiting Pathogenic Bacteria.** Zortea AVL¹, Laurentino GS¹, Mendes CR², Dilarri G[1] ¹PMBqBM-UDESC, Multicentric Graduate Program in Biochemistry and Molecular Biology; ²Unesp-Rio Claro

09.005 **Investigation of the Geographic Distribution of Phospholipases A2 in the Venom of *Crotalus durissus terrificus.*** Felippe AGC[1], Júnior LNS[1], Glizio NC[1], Carneiro IB[1], Sousa EP[1], Rodrigues MAF[1], Videueiros J[2], Sant'anna S[1], Morais-Zani K[1] [1]Instituto Butantan, Lab de Fisiopatologia, [2] Instituto Butantan Lab de Herpetologia,

09.010 **Evaluation of the Clinical Safety of Crotalphine in Wistar Rats.** Santos GT¹, Baroni JC¹, Belo AY², Silva ER², Silva DG³, Camplesi AC³. ¹Unesp-Jaboticabal, ²CTA-Unesp-Jaboticabal, ³Unesp-Jaboticabal, Dpt of veterinary clinic and surgery

09.011 **Antioxidant, Antimicrobial and Migratory Effects *in vitro* of *Delonix regia* (Bojer ex Hook) Raffin Petals.** Lucena LCP, Santos IV, Moreira RTF, Silva VA, Moreira IF, Borges ALTF, Nascimento TG, Ferro JNS UFAL

09.012 **Antinociceptive Properties of Aqueous Extract of *S. marginata* Stems in Experimental Models.** Ferreira JV¹, Lossavaro PKMB¹, Bonfá IS¹, Fernandes MML¹, Venâncio GSO¹, Lencina JS¹, Machado LL¹, Heredia-Vieira SC², Toffoli-Kadri MC¹, Silva-Filho SE¹. ¹UFMS, Lab of Pharmacology and Inflammation; ²UNIDERP

09.013 **Potential Antitumor Activity in Bacteria Isolated from the *Ascidian Tridemnum maragogi.*** Fiasca JS¹, Sahm BDB², Lotufo LVC³. ¹EACH-USP; ²FCFRP-USP, Dpt of Biomolecular Science; ³ICB-USP, Dpt of Pharmacology

09.014 **Chromomycin A5 Induces Immunogenic Cell Death in Human Melanoma.** Linhares MF¹, Brito TL¹, Pinto FCL², Pessoa ODL², Florêncio KGD¹, Wilke DV¹. ¹UFC, Drug Research and Development Center, Dpt of Physiology and Pharmacology, School of Medicine. ²UFC, Dpt of Organic and Inorganic Chemistry, Sciences Center

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09. Natural Products and Toxinology

09.021 **Hemostatic Action of Two Intraspecific Variations of *Crotalus durissus ruruima* (Viperidae: Crotalinae) Venom and Neutralization by Therapeutic Antivenom *in vitro*.**
Demico PJ¹, Oliveira IN¹, Proença-Hirata VS¹, Galizio NC², Morais-Zani K²³, Moura-da-Silva AM[4], Pucca M[5], Rocha AM[6], Maciel JB[6], Sartim MA[6], Monteiro WM[6], Floriano RS¹ ¹UNOESTE Lab of Toxinology and Cardiovascular Research; ²IBu, Lab of Pathophysiology; ³IBu, Lab of Herpetology; [4]Ibu, Lab of Immunology; [5]Unesp-Araraquara, Dpt of Clinical Analysis, School of Pharmaceutical Sciences; [6]UEA, PPG in Tropical Medicine

09.023 **Does Heat Shock Protein Inhibition Correlate with Endoplasmic Reticulum Stress and Immunogenic Tumor Cell Death?** Silva JYG[1], Brito TL[1], Souza PFN[1], Hirata AS[2], Costa-Lotufo LV[2], Wilke DV[1] [1]UFC Fortaleza, Dpt of Physiology and Pharmacology; [2]USP Sao Paulo, Dpt of Pharmacology.

09.024 **Unraveling the Possible Antiparkinsonian Effects of Ayahuasca Beverage: A Preliminary *in vitro* and *in vivo* Investigation.** Morales-Lima G, Mendes, FR CCNH-UFABC

09.025 ***Spirulina platensis* Prevents Alterations in the Female Reproductive System in a Model of Primary Dysmenorrhea in Wistar Rats.** Soares MFS[1], Lacerda-Júnior FF[1], Diniz AFA[1], Ferreira PB[1], Souza PPS[2], Barros BC[1], Alves, AF[1] [3], Silva BA[1] [4] [1]PPgPNSB/CCS/UFPB, [2]CCS/UFPB, [3]DFP/CCS/UFP, [4]DCF/CCS/UFPB

09.026 **Assessment of the Toxicity of Repeated Doses of Lauric Acid in Wistar Rats.** Martins AMO[1], Figueiredo IAD[1], Oliveira LN[1], Felício IM[1], Cavalcanti AMT[2], Fernandes JM[2], Gomes LES[2], Ramalho IGS[1], Costa MESM[3], Janebro DI[4], Diniz MFFM[1,4], Cavalcante FA[1,5] [1]PPgPNSB/CCS/UFPB, [2]PIBIC/CNPq/UFPB, [3]IPeFarM, [4]DCF/CCS/UFPB, [5]DFP/CCS/UFPB

09.027 ***Spirulina platensis* prevents changes in uterine hypercontractility caused by primary dysmenorrhea through inhibition of contractile prostanoids in Wistar rats.** Melchiades MKN[1], Ravilly RAA[1], Soares MFS[1], Barros BC[1], Sousa TR[2], Silva JMA[2], Filho JECS[2], Melo MB[2], Silva BA[13], Vasconcelos LHC[14] [1]PPgPNSB/CCS/UFPB, [2]CCS/UFPB, [3]DCF/CCS/UFPB, 4DFP/CCS/UFPB

09.028 **Antidiabetic Activity of *Licania rigida* in Mice.** Gomes AM[1], Moraes CC, Ferreira BS, Borges SS, Moraes TMP[1], Moraes WP. UFOPA-Santarém, Institute of Public Health

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10. Cancer Pharmacology

10.011 **Endothelial Cell Marker CD34 Overexpression in Inflammatory Breast Carcinoma: Clinical Significance and Therapeutic Perspectives.** Alves BES[1], Oliveira PRA[1], Teles ACF[1], Leitão RFC[2], Almeida PRC[3], Arruda LM4, Maia IFVC[1], Rogatto SR5,6, Lima-Junior RCP[1], Wong DVT[1]. [1]UFC, Dpt of Physiology and Pharmacology; [2]UFC, Dpt of Morphology; [3]UFC Fortaleza, Dpt of Pathology; [4]Haroldo Juaçaba Hospital, Cancer Institute of Ceara; [5]Unesp-Botucatu, Botucatu Medical School Hospital; [6]University Hospital of Southern Denmark, Dpt of Clinical Genetics, Denmark.

10.012 **Toxicity and Antitumoral Effect of Chromomycin A5 in a Murine Melanoma Model.** Oliveira TB[1], Brito TL[1], Florêncio KGD[1], Assef ANB[1], Lima RCP[1], Wong DVT[1], Cajado AG[1], Pinto FCL[2], Pessoa ODL[2], Wilke DV[1]. [1]NPDM-UFC, PPG Ciências Farmacêuticas; [2]UFC, Depto de Química Orgânica e Inorgânica

10.013 **STAT3-NFkB Crosstalk Decreases Melatonin Production by Acute Myeloid Leukemia Cells.** Carvalho C[1], Carvalho MFL[2], Hauber IA[1], Córdoba-Moreno MO[1], Silva ZF[1], Markus RP[1], Machado-Neto JA[2], Fernandes PACM[1] [1]ICB-USP, Dept of Physiology, [2]ICB-USP, Dept of Pharmacology

10.014 **Analysis of Glucose Transporter 1 (GLUT1) Expression and the Efficacy of BAY-876 Inhibitor in Gastric Cancer as a Potential Therapeutic Target.**
Lima AA[1], Matos TL[2], Silva EL[1], Gomes IA[2], Estevão VA[3], Souza PFN[4], Moraes MEA[5], Mesquita FP[5], Montenegro RC[5]. [1]UFC, PPG Physiology and Pharmacology; [2]UFC, PPG Medical Sciences; [3]UFC, Dpt of Pharmacy; [4]UFC, Dpt of Biochemistry and Molecular Biology; [5]UFC, Drug Research and Development Center;

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11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology

11.002 **Local Distribution of Artepelin c in the Prostates of Healthy Rats using Microdialysis.** Menin RH[1], Dias BB[1], Olivo LB[1], Lemos JLS[1], Barnet LS[2], Araújo BV[1] [1]UFRGS, Pharmacokinetics and PK/PD Modeling Lab, Pharmaceutical Sciences Graduate Program; [2]LFDA-RS Federal Lab of Animal and Plant Health and Inspection

11.010 **Bivalent COVID-19 Vaccine: Analysis of Immunogenicity in Healthcare Workers.** Neves BMS[1], Oliveira HR[1], Silva DLM[2,3], Duarte DB[1,4] [1]UnB, Lab of Pharmacological Assays, Dept of Pharmacy, School of Health Sciences, [2]HUB-UnB, [3]UnB, Graduate Program in Public Health, School of Health Sciences, [4]UnB, Graduate Program in Tropical Medicine, School of Medicine

12. Drug Discovery and Development

12.001 **Cocrystals for improved dissolution and antifungal activity of ketoconazole.** Chade ES[2], Goes AKS[1], Lopes DS[2], Bernardi LS[2], Zela SJ[1], Murakami FS[3], Oliveira PR[1,2]. [1]UNICENTRO, PPG Pharmaceutical Sciences; [2]UNICENTRO, Dpt of Pharmacy; [3]UFPR Curitiba, PPG Pharmaceutical Sciences.

12.002 **Anxiolytic and Antidepressant-like Effects of N-(3,5-di-tert-butyl-4-hydroxyphenethyl) acetamide in Mice.**
Rosa TM, Ogbu JI, Lima Moreira CV, Alves Pereira JK, Menegatti R, Fajemiroye JO UFG, Dpt of Pharmacology and Faculty of Pharmaceutical Sciences.

12.003 **Association of Nucleation-inhibiting Polymers with Lamotrigine Cocrystals as an Alternative to Improve Bioavailability in Anticonvulsant Therapy.** Lopes DS, Chade ES, Biscaia IFB, Siqueira GR, Brancalione RC, Bernardi LS, Oliveira PR UNICENTRO, Dpt of Pharmacy

12.004 **Anti-Inflammatory and Anti-Hyperalgesic Properties of the New Hybrid Isoxazole Analogue Based on the Structure of Celecoxib and Neolignans in the Acute Inflammatory Response in Mice.** Machado LL[1], Costa PAN[1], Lossavaro PKMB[2], Ferreira JV[2], Venancio GSO[2], Lencina JS[2], Silva-Filho SE[2], Baroni ACM[1]. [1]UFMS, Lab of Synthesis and Medicinal Chemistry; [2]UFMS, Lab of Pharmacology and Inflammation.

12.005 **Penile Topical Treatment with Menthol-Loaded Microemulsion improves Erectile Dysfunction in SHR Rats.** Sena CFS[1], Jesus RLC[1], Moraes RA[1,2], Silva LB[1], Araujo FA[1,2], Marcelino HR[3], Silva DF[1,2]. [1]UFBA, Lab of Cardiovascular Physiology and Pharmacology,; [2]Fiocruz-BA, Gonçalo Moniz Institute; [3]UFBA, Dept of Medicine, College of Pharmacy

12.006 **Menthol-Loaded Microemulsion Topical Treatment Improves Internal Pudendal Artery Function in Erectile Dysfunction Animal Models.** Silva LKC[1], Jesus RLC[1], Moraes RA[1,2], Silva LB[1], Araújo FA[1,2], Marcelino HR[3], Silva DF[1,2]. [1]UFBA, Lab of Cardiovascular Physiology and Pharmacology; [2]Fiocruz-BA, Gonçalo Moniz Institute; [3]UFBA, Dept of Medicines, College of Pharmacy

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11. Clinical Pharmacology, Pharmacokinetics, Pharmacogenomics and Toxicology

11.025 **Preclinical Pharmacokinetic Evaluation of a Quinazoline Derivative as a Potential Agent for Chagas Disease's Treatment.** Rocha DA[1,2], Dias BB[1,3], Fortes IS[2,3], Tomaszewski CA[4], Barreto F[4], Ferreira RS[5], de Araújo BV[1,3], de Andrade SF[2,3], Dalla Costa T[1,3] [1]UFRGS, Pharmacokinetics and PK/PD Modeling Lab, [2]PHARSG-UFRGS, Pharmaceutical Synthesis Group, [3]UFRGS,

Pharmaceutical Sciences Graduate Program,. [4] LFDA-RS, Federal Lab of Animal and Plant Health and Inspection, [5]UFMG, Biochemistry and Immunology Dept, Biological Sciences Institute.

11.026 **Colchicine Loaded-Cationic Nanocapsule Suspension: Formulation Development and Population Pharmacokinetic Modeling in Female Wistar Rats.** Maciel TR[1,2], Pacheco CO[1,2], Ribeiro ACF[1,3], Haas SE[1,2,3] [1]Unipampa, Pharmacology and Pharmacometric Lab; [2]UFSM, Pharmaceutical Sciences Graduate Program; [3]Unipampa, Biochemistry Graduate Program

11.027 **The *in vitro*, *ex vivo* and *in vivo* Exposure to Pesticide Pyrethroids Causes Cardiotoxicity: Involvement of Cardiac Sodium Channel.** Orts DJB[1], Alcantara FS[1], Fonseca JLT[1], Marques LP[1], Lima-Conceição MR[1], Silva PL[1], Sousa GM[1], Ito AN, [1] Durço AO[1], Barbosa MLAM[2], Fontes JLR[2], Souza DS, Campos DR [1]Unifesp-EPM, Lab of CardioBiology, Dept of Biophysics, [2]UFS, Lab of Heart Biophysics

11.028 **Effective Concentrations of Voriconazole in Brain Tissue to Treat Cryptococcal Meningitis: The Application of Population Pharmacokinetic Models.** Staudt KJ[1], Dias BB[2], Alves IA[3], Lelièvre B[4], Bouchara JP[4], de Araújo BV1 [1]UFRGS, [2]UFBA

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14. Pharmacology: Other

14.005 **Evaluation of the Effect of Autophagy Flux Control by Rapamycin and Hydroxychloroquine in the Senescent Phenotype of Hepatocytes and Adipocytes in Mouse Model.** De Queiroz LAD[1], Barros RS[1], Bustia SX[1],Pantoja KC[1], Migliorini S[1], Rodrigues SF[2], Guimarães JPT[3],Scoggin S[3], Moustaid-Moussa[3], Martins JO[1] [1]USP, Dept of Clinical and Toxicological Analyses; [2]USP, Dept of Pharmacology; [3]TTU Lubbock, Dept of Nutritional Sciences, & Obesity Research Institute

14.006 **MicroRNAs as a Promising Target for the Development of Novel Drugs in Psychiatry: a Bioinformatic Approach.** Schons T[1,2], da Rosa PH[1,2], Mezzomo G[1,2], Rocha G[1], Ziani PR[1], Baldez DP[1], Rosa AR[1,2,3] [1]HCPA, Lab of Molecular Psychiatry, [2]UFRGS, Postgraduate Program in Biological Sciences: Pharmacology and Therapeutics, [3]UFRGS, Dept of Pharmacology, Institute of Basic Health Sciences

14.008 **Effects of Fungicides in Zebrafish Behavior: A Systematic Review and Meta-Analysis.** Bastos LM[1], Reis CG[2], Chitolina R[2], Gallas-Lopes M[1], Zanona QK[2], Becker SZ[1], Herrmann AP[1], Piato A[1,2]. [1]UFRGS, PPG Farmacologia e Terapêutica; [2]UFRGS, PPG Neurociências.

14.009 **Effects of Biopolymer-Based Aerogels on Scratch-Wound Assay.** Lopes DL[1], Bento CSA[2], Empadinhas N[3], Alarico S[3], Sousa HCD[2], Braga MEM[2], Villarreal CF[1] [1]UFBA, School of Pharmacy, PPG of Pharmacy; [2]University of Coimbra, Chemical Process Engineering and Forest Products Research Centre; [3]University of Coimbra, Faculty of Medicine

14.010 *Achyrocline satureioides* **Infusion Reverted Changes Induced by Mild COVID-19 on Saliva ACE2 Content.** Dani C[1], Bastos CIM[1], Cunha ELV[2], Neves AHS[1], Bassani VL[3], Siqueira IR[12]*, [1]UFRGS, PPG Farmacologia e Terapêutica, [2]UFRGS, Dpt de Farmacologia, [3]UFRGS, PPG Ciências Farmacêuticas

14.011 **Multi-Level Biological Network Analysis for Drug Repurposing in Individuals with Alcohol Use Disorder: A Proteomic Study.** Hoefel LPL[1] [2], Pulcinelli RR[2], Almeida FB[2], Rosa AR[2], Gomez R[2]. [1]UFRGS, Biotechnology Program; [2]UFRGS, PPG Pharmacology and Therapeutics.

14.012 **Fatty Acid Desaturation by FADS2 in Adipocytes as a Regulator of Energy and Glycemic Homeostasis.** Costa GS, Vieira V, Melo PH, Pereira, N, Araújo, RB, Leiria, LOS University of São Paulo

Lectures Abstracts

Courses

Pre-Congress Course

Learning the Discovery and Development Process of New Drugs and Medicines with the Screener Educational Game (Aprendendo o Processo de Descoberta e Desenvolvimento de novos Fármacos e Medicamentos com o Jogo Educacional Screener)

The proposal of this course is to approach the complex process of discovery and development of new drugs in a pleasant and interactive way, using the SCREENER game which has been successfully used by several postgraduate courses since 2022 (https://www.screener.com.br/). SCREENER is a collaborative game, a hybrid of board and card game that features online resources. The game mimics the process of drug discovery and development, from target validation to the registration of the new drug product with the regulatory agency, and can be played individually (self-learning) or with the help of a monitor who assists up to six players/teams. The objective of the game is to collect cards representing the tasks that must be performed throughout the seven stages of the process. The 29 task cards are categorized into four main areas (efficacy, safety, pharmacokinetics, and pharmaceutical development) and must be purchased sequentially. The game ends when the last card, representing FDA approval, is collected. The player who has collected the most task cards wins. Classic game features such as decision-making and challenge have been incorporated. More detailed information about tasks and technical terms is available through QR codes on the cards. The vicissitudes of this long and costly process are imitated by bonus/mishap cards that must be read when the six-faced die indicates the number 6. In this course, limited to 12 participants selected from students and teachers who send a letter of intent. During the course, we will present the rules of SCREENER and play the entire game. The **activity will be conducted in Portuguese**, according to the language of the game. CNPq, FAPERJ

Cr1 – **Reliability, Transparency, And Quality: Tips from Obtaining Data to Completion** (*Confiabilidade, Transparência e Qualidade: Dicas desde a Obtenção dos Dados até a Conclusão)*

Power of the test x n sample (focus on the 3 R's): approach to its importance in the design of studies. Janaína Menezes Zanoveli Department of Pharmacology, Biological Sciences Sector/Polytechnic Center, Federal University of Paraná, Curitiba, PR.

This class will cover important topics for quality and reproducible research, such as steps that must be followed before conducting scientific research; the meaning of the n sample and its importance in Research and the interrelationship between the n sample and the quality of the Research. The relationship between the n sample (focusing on the 3 R's) and the power of the test. Finally, an understanding of the concept of effect size in obtaining results will be addressed, as well as important tips for representing and interpreting data after conducting a Research. In this way, important definitions of each subject will be presented in class, containing examples to understand the concepts and definitions. Furthermore, this class will address divergent opinions on the topic and the overvaluation of the value of "$p<0.05$" in statistical inference. This class is intended for students to acquire important clarifications and critical thinking on the topic and to be confronted in order to promote higher quality research. Financial support: CNPq (productivity grant - 307714/2023-3)

Guidelines for reporting methodologies in animal experimentation: Have you ARRIVEd there yet? Quelen Iane Garlet Department of Pharmacology, Biological Sciences Sector/Polytechnic Center, Federal University of Paraná, Curitiba, PR.

When we reflect on science, we often conjure up images of experiments and their results, which must be considered reliable before being improved and applied to human reality. In this context, the adequate description of the tools used to obtain these results is essential so

that they can be replicated accurately. In recent decades, the importance of adequately reporting methods in in vivo research has been emphasized by scientific bodies. In response, several protocols were developed to standardize the description of research methodologies, among which the ARRIVE protocol stands out. This is the theme of the second class of the course. The ARRIVE protocol includes a list of items that constitute minimum requirements for the description of a scientific text, facilitating the reporting of in vivo research. In this class, we will understand the objectives of the protocol and receive training on ARRIVE Essential 10 and the ARRIVE Recommended Set, which guide good scientific reporting practices. The objective of this training is to provide course participants with a harmonized approach to scientific writing, aiming to increase the transparency of experiments and improve scientific reproducibility. Financial Support: none.

Reproducibility crisis: possible causes, consequences and how we can get around them. Janaína Menezes Zanoveli Department of Pharmacology, Biological Sciences Sector/Polytechnic Center, Federal University of Paraná, Curitiba, PR.
Non-reproducible data has led to a series of discussions by the global scientific community in order to propose changes to reduce this data. In this class, the main possible causes that can lead to the production of non-reproducible data will be addressed, some of which are: the lack of a well-designed scientific question, lack of experimental planning considering the reduction of errors (biases), lack of statistical planning "the priori", lack of transparency in the description of the Methodology and experimental design, lack of international standardization in animal care (culture of care), execution of experiments by unqualified people, lack of blinding in the experimental stages and undue sample size. The consequences of producing these data will also be discussed in class from both a scientific and economic point of view. Finally, some tips will be given on how we can overcome the production of this non-reproducible data, contributing in a practical and effective way to quality and highly reproducible research. Financial support: CNPq (productivity grant - 307714/2023-3)

Cr2 – **Experimental Models of Autism Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD): Focus on Discovering new Therapeutic Targets** (Modelos Experimentais dos Transtornos Do Espectro Autista (TEA) e Déficit de Atenção e Hiperatividade (TDAH): Foco na Descoberta de Novos Alvos Terapêuticos)

Experimental Models of ASD and the Possibilities of New Therapeutic Strategies Exploring the Gut-Brain Connection (*Modelos experimentais de TEA e a possibilidades de novas estratégias terapêuticas explorando a conexão intestino-cérebro*) Luisa Mota da Silva - Laboratory of Pharmacology Applied to the Gastrointestinal Tract and its Interactions- Pharmacology Department Universidade Federal de Santa Catarina
Autism spectrum disorder (ASD) is a neurodevelopmental illness characterized by difficulties interacting, socializing, and engaging in restricted or repetitive activities and interests. Furthermore, ASD is associated with some comorbidities, including gastrointestinal (GI) diseases, and people with ASD are expected to be four times more likely to experience GI problems than the neurotypical population. In addition, GI comorbidities appear to increase maladaptive behaviors, sleep issues, anxiety, irritability, self-injury, and the severity of social and sensory symptoms in ASD. As a result, the current study suggests a relationship between ASD and aberrant communication in the gut-brain axis, particularly using experimental models. Indeed, vagus nerve-dependent pathways play a role in aberrant communication in the gut-brain axis in Shank 3-/- mice, a genetic ASD model. Opposing this, no alterations in intestinal permeability were observed in these mice, contradicting the leaky gut hypothesis, which has been proposed to explain how GI abnormalities affect the central nervous system in ASD. In this regard, valproic acid-induced ASD may be a suitable model for investigating the leaky gut's function in ASD. In addition, sexual dimorphism has been linked to alterations in the gut-brain axis in this autism model. In this way, effective rodent models mimicking fundamental GI symptoms in ASD are required, and these aspects are being adequately validated around the world by

some research groups involved in this, including ours, to provide useful tools in the search for new therapeutic strategies in ASD that investigate the gut-brain connection. Among such strategies, experimental studies have pointed to the potential therapeutic value of probiotics and antioxidants such as luteolin, pointing to future directions in this field of research.

Maternal Immune Activation as an Experimental Model in the Search for Therapeutic Targets in the Study of ASD. Alexandre Giusti-Paiva, Department of Physiological Sciences, Center for Biological Sciences, Federal University of Santa Catarina (UFSC)
Maternal immune activation (MIA), triggered by infections or inflammations during critical periods of gestation, is a known risk factor for neurodevelopmental disorders, including autism spectrum disorder (ASD). Our study explores the effects of MIA, induced by lipopolysaccharide (LPS), in Wistar rats, spanning from pre-puberty to adulthood. MIA resulted in adverse impacts on mothers and reduced the number of successful births and litter size. In pre-pubertal males, a series of behavioral changes were observed, revealing an increased predisposition for neurodevelopmental disorders, such as reduction in ultrasonic vocalizations in response to separation from the mother and nest, decreased discrimination between neutral odors and the nest odor, and a significant reduction in social play behavior. Notably, this reduction in social behavior correlated with a decrease in c-fos expression in the prefrontal cortex and striatum, and hyperactivation of the basolateral and basomedial amygdala, indicating changes in the pattern of neuronal activation. Adult rats exhibited anxious behaviors, reduced exploratory activities in the open arms of the elevated plus maze, and less social interaction time. Furthermore, they showed increased sensitivity to cat odor and prolonged freezing in contextual fear tests. During restraint stress, these animals displayed elevated blood pressure responses, with an increase in c-fos expression in the locus coeruleus. The findings of this study emphasize that MIA induces significant behavioral and physiological changes that persist from pre-puberty to adulthood, highlighting the importance of maternal health in predisposing offspring to neurobehavioral and psychiatric deficits. Detailed analysis of the underlying mechanisms of these effects suggests a promising path for the identification of therapeutic targets for comorbidities in ASD, consolidating MIA as a robust experimental model for future investigations. Financial Support: CNPq, FAPEMIG

Experimental Models of ADHD: Unraveling Neurobiology and New Therapeutic Targets. Rui Daniel Schröder Prediger, Department of Pharmacology, Universidade Federal de Santa Catarina (UFSC)
Attention-deficit hyperactivity disorder (ADHD) is a neuropsychiatric disorder affecting children, adolescents and adults subjects. Individuals with ADHD experience heterogeneous problems, such as difficulty in attention, behavioral hyperactivity, and impulsivity. Many patients are considered non-responders to typical pharmacological treatments due to insufficient symptoms' reduction or the inability to tolerate the side effects of these medications. Animal models are crucial for studying the molecular and brain circuit mechanisms underlying ADHD, contributing for the development of new treatments. This presentation highlights the main features of animal models used to study ADHD. Moreover, the imbalance of the adenosine modulation system upon ADHD provides a rationale to understand the particular ability of caffeine and selective adenosine receptor antagonists to improve ADHD impairments. The association of caffeine plus physical exercise during adolescence or adulthood restored the olfactory discrimination ability and improved short-term recognition memory of SHRs, and increased the levels of SNAP-25, syntaxin, and serotonin in the hippocampus and prefrontal cortex, and striatal dopamine levels in SHRs. Finally, this study provides the first evidence that agmatine, an endogenous neuromodulator, improves olfactory and cognitive impairments observed in an animal model of ADHD. Financial support: CAPES, CNPq, FAPESC

Cr3 – **How to build a Vascular Aging Model: From Molecular Targets to Pharmacological Tools. (Como criar Modelos de Envelhecimento Vascular: de Alvos Moleculares às Ferramentas Farmacológicas)**

From the Concept of Cellular Aging to the Development of *in vitro* and *in vivo* Models for Identifying Pharmacological Targets. Lucienne da Silva Lara Morcillo (UFRJ)
The elderly population, individuals aged over 65, is experiencing significant growth across the developed world. Cellular aging, a complex process influenced by various intrinsic and extrinsic factors, lies at the core of numerous age-related diseases, including cardiovascular and renal diseases. Understanding the intricate mechanisms underlying cellular aging is crucial for developing effective interventions to promote healthy aging and mitigate age-associated pathologies. In this class, we will discuss the advances and the limitations to develop *in vitro* and *in vivo* of aging to identify the potential molecular pharmacological targets. *In vitro* models, such as cell cultures and organoids, offer controlled environments for elucidating cellular aging pathways and screening compounds for their anti-aging effects. Complementing these systems, *in vivo* models, including model organisms like mice, flies, and worms, provide valuable insights into organismal aging processes and enable the assessment of pharmacological interventions in a physiological context. Complexity of aging, longevity and time, ethical considerations, genetic manipulations and high cost of studies and low funding to support science are limitations are limitations that we will discuss.

Understanding the role of mitochondria and reactive oxygen species signaling in a vascular accelerated aging animal model. Sabrina Ribeiro Gonsalez, Universidade Federal of Rio de Janeiro/Erasmus University
In the aging population vascular dysfunction is consistently associated with vascular DNA damage and cell senescence, jeopardizing organ perfusion and function. Since the elderly population, individuals aged over 65, is experiencing significant growth across the world this is a highline point of interest in recent researches. We will focus to understanding the paradigm how endothelial DNA damage accelerates vascular and renal decline, a major health problem of disability and mortality in elderly. A new mouse model that develops human-like vascular aging due to endothelial-selective *Ercc1* DNA repair endonuclease gene excision (EC-KO) will be the center of the talk. This approach provides opportunities to track the vascular aging process without the bias of confounding factors, such as atherosclerosis. We recently investigated the renal phenotype and mitochondrial metabolism implicated on accelerated aging. Using high resolution respirometry directly in the kidney tissue and Mass spectrometry images analysis we could track biomarker and metabolites involved in the vascular aging process, besides the renal dysfunction developed, leading to important molecular pathway to conduct further clinical approach. Apoio financeiro: Faperj;Astrazeneca

Exploring a New Pharmacological Approach to Combat Aging of the Vasculature: Focusing on the Nitric Oxide – cGMP Signaling Pathway and Novel Mitochondrial Regulator Compounds. Anton Roks (Erasmus University Medical Center Roterdam, Dept. of Internal Medicine)
Vascular aging is an aging-dependent, non-occlusive vascular disease featured by the progressive loss of vasomotor function. Vascular aging contributes to heart failure, renal failure and dementia. The functional loss that features vascular aging is caused by a decrease of endothelial-mediated relaxation, smooth muscle relaxation, and vascular stiffening. We discovered that accumulating DNA damage is a major cause of this pathophysiology. Thus far no early markers or treatments have been developed, leaving >30 % of our aging population at risk to display clinical manifestation of vascular aging. One of the main problems in addressing this health problem was the lack of efficient models. Based on the foreground that DNA damage prompts vascular aging we have developed effective mouse models to solve this problem. In this lecture the features of these models and their use to develop pharmacotherapy will be discussed, emphasizing on cGMP signaling and mitochondrial function as drug targets. AR is funded by the Dutch heart Foundation, TKI-LSH health Holland, Erasmus Medical Center, Intra-Cellular Therapies and AstraZeneca

Lectures

L3 – **Pharmacology 2.0: Advanced Models for the Development of New Therapies of Age Related Inflammatory Diseases.** Martina Schmidt[1,2] [1]Department of Molecular Pharmacology, University of Groningen, The Netherlands, [2]Groningen Research Institute for Asthma and COPD (GRIAC), University of Groningen, University Medical Center Groningen, Groningen, The Netherlands

Chronic diseases afflict millions of people of our worldwide aging society causing individual suffering and an enormous economic burden on our health care system. Obstructive pulmonary diseases and Alzheimer's dementia are common chronic diseases threatening the world population. Chronic age-related diseases show tissue degeneration and oxidative stress, seemingly amplifying chronic inflammation. Environmental stressors are traditionally linked to lung dysfunction, however, recent research also highlights a higher risk in developing Alzheimer's dementia. Despite the global impact of chronic age-related inflammatory diseases, there have been very limited breakthroughs in our understanding and insights into the underlying mechanisms into their causes, treatment or cure. To study clustering of cyclic nucleotides (and calcium) signaling in defined subcellular compartments/microdomains (signalosomes) we apply advanced models to study cell-cell-communication. We use 2D and 3D models using here structural lung cells, next to neurons and microglia cells – and we offer translational value of our studies due to the enrollment of patient samples. Of particular interest are also such as precision-cut-lung slices and organoids. We present here novel insights of our drug-drug screening platform to further improve patient treatment. Novartis unrestricted grant 50199468, and Alzheimer Nederland grant WE.03-2019-05.

L4 – **Induction of antiviral Interferon-Stimulated Genes (ISGs) by neuronal STING promotes the resolution of pain** Manon Defaye[1,2,3$], Amyaouch Bradaia[1,2,3$], Nasser S. Abdullah[1,2,3], Francina Agosti[1,2,3], Mircea Iftinca[1,2,3], Vanessa Soubeyre[6], Kristofer Svendsen[1,2,3,4], Gurveer Gill[1,2], Mélissa Cuménal[1,2,3], Aye Ozmaeian[1,2,3], Nadine Gheziel[5], Jérémy Martin[5], Gaetan Poulen[6], Nicolas Lonjon[6], Florence Vachiery-Lahaye[6], Luc Bauchet[6,7], Lilian Basso[5], Emmanuel Bourinet[7], Isaac M. Chiu[8], Christophe Altier[1,2,3,4*] [1]Department of Physiology and Pharmacology, Cumming School of Medicine, University of Calgary, Calgary, Alberta T2N4N1, Canada. [2]Inflammation Research Network-Snyder Institute for Chronic Diseases, Cumming School of Medicine, University of Calgary, Calgary, Alberta T2N4N1, Canada. [3]Alberta Children's Hospital Research Institute, University of Calgary, Calgary, Alberta T2N4N1, Canada. [4] Hotchkiss Brain Institute, Cumming School of Medicine, University of Calgary, Calgary, Alberta T2N4N1, Canada. [5] Toulouse Institute for Infectious and Inflammatory Diseases (INFINITy), INSERM UMR1291, CNRS UMR5051, University of Toulouse III, Toulouse, France. [6] Department of Neurosurgery, Gui de Chauliac Hospital, Donation and Transplantation Coordination Unit, Montpellier University Medical center, Montpellier, France. [7] Institute of Functional Genomics, Montpellier University, CNRS, INSERM, Montpellier, France.[8] Department of Immunology, Blavatnik Institute, Harvard Medical School, Boston, MA, USA. 02115 Inflammation and pain are interconnected responses to injury, infection, or chronic diseases. While acute inflammation plays a crucial role in resolving pain and mediating opioid analgesia, maladaptive processes during this resolution can lead to chronic pain. I will present some data demonstrating that inflammation activates the cytosolic DNA-sensing protein, Stimulator of Interferon Genes (STING), in dorsal root ganglion (DRG) nociceptors. We found that activation of STING in neurons promotes signaling through TANK-binding kinase 1 (TBK1) and triggers an interferon-beta (IFNβ) response that mediates pain resolution. Mice expressing a nociceptor-specific gain-of-function mutation in STING, exhibit an IFN gene signature that dampens nociceptor excitability and inflammatory hyperalgesia through the regulation of KChIP1 and Kv4.3 channels. Our findings highlight the role of IFN-regulated genes (IRGs) and KChIP1 downstream of STING in resolving inflammatory pain.

L5 – **Effects of Sweetener Chronic Consumption on Brain Neurotransmission and Cognition**. Sylvie Granon, Paris Saclay Institute of Neuroscience, CNRS, UMR 9197, Saclay, France. Héloïse

Hamelin, current address Douglas Institut Universitaire en Santé Mentale El Mestikawy lab, Département de Psychiatrie, McGill University Montréal QC H4H 1R3 Canada
Manipulation of the reward system in mice using continuous sweet or artificial sweetener consumption in adulthood led to altered gambling strategies and dopamine levels in the striatum and prefrontal cortex (Hamelin et al., 2021). As the prefrontal monoaminergic projections mature late, we tested the effets of these consumptions during adolescence. We submitted adolescent male mice (pnd 30) to either water (n=70), sucrose (n=40) or saccharin (n=22) consumption continuously for 10 weeks in home cage. We then tested how these animals at adulthood establish their decision strategy using the Mouse Gambling Task -MGT (Pittaras et al., 2016). We quantified the brain monoamine content following these consumptions in distinct groups (n=22). At the neurochemical level, saccharin consumption led to an increase of noradrenalin (51%), dopamine (33%) and serotonin (28%) levels in striatum and to an increase of dopamine and serotonin turn over (55% and 50% respectively). Sucrose and saccharin led to a significant decrease of dopamine levels (24% and 51%) and turn over (32% and 60%), and a decrease of serotonin turn over (21% and 41%). In the MGT, a much larger proportion of animals consuming sucrose developed risk-prone behavior (35% as compared to 16% for control mice, $p<0.0001$) while all saccharin mice displayed rigid choices (significant difference from chance level $p=0.008$ to $p=0.043$). We show here that long term consumption of sweet or artificial sweeteners in adolescents shape the decision-making process by massive and specific alteration of monoaminergic system activity, leading to increase risk-prone or inflexible behavior. **Fundings**: Agence Nationale pour la Recherche (SweetBrainDev), Fondation de l'Avenir, and Cofecub-Capes Campus France. Doctoral school BioSigne for H.H.

L6 – **Bioportide Technologies: New Biological Agents and a Platform for Drug Discovery**. John **Howl.** Faculty of Health, Education and Life Sciences, Birmingham City University, UK
Cellular and tissue permeability barriers are significant challenges for the development of bioactive agents able to exploit intracellular drug modalities. Cell penetrating peptides (CPPs), usually short (12-24 AA) cationic sequences, can overcome these common biophysical constraints. Some inert CPP vectors, including penetratin (RQIKIWFQNRRMKWKK), derive from helical protein domains. Similar cationic helices, exposed on protein surfaces, are common motifs within sites that bind proteins or oligonucleotides. Thus, the ability to predict CPPs within defined secondary structures of proteins can support the identification of bioactive CPPs. This CPP subclass, distinguished by the term bioportide, can modulate intracellular biology, most likely by a dominant-negative mechanism, following effective intracellular accumulation. This presentation will focus upon two related strategies employing bioportide technologies to manipulate intracellular processes that govern life: **1)** The haploid male gamete is a unique cellular target since it is virtually incapable of genetic expression. Despite the absence of endocytosis, CPPs and bioportides readily translocate into human sperm to accrete within discrete intracellular compartments. Sychnologic STOPSPERM bioportides were designed to disrupt protein-protein interactions between PP1γ2, a sperm-specific protein phosphatase, and interacting proteins essential for the acquisition of sperm motility. MSS1(YRSVITFVAVRQIKIWFQNRRMKWKK), our current lead compound, enters the flagellum of sperm cells to induce a marked impact on PP1γ2 activity and sperm motility. **2)** The planarian *S. mediterranea* is a viable system to determine the influence of rhegnylogic bioportides upon stem cell biology. Some 25-30% of planarian cells are totipotent stem cells (neoblasts) that control tissue remodelling. Rhegnylogic bioportides (e.g. [Aib^{13}]Djeya, RKLAFRYRRIKE(Aib)YNSYR; Aib = aminoisobutryric acid) mimicking a unique helical domain of the Eyes Absent protein, an evolutionary conserved transcription factor, prevent regeneration and remodelling of planarian tissues driven by neoblast proliferation. This research is currently supported by the Male Contraceptive Initiative.

Symposia

S1 – Pharmacology Without Borders: Emerging Technologies and Trends from British and Brazilian Pharmacology Societies. Drug Discovery and Therapeutic Innovation for the Treatment of COPD: Translating Basic Respiratory Pharmacology into Clinical Practice

Use of preclinical models to investigate novel drugs for the treatment of respiratory diseases. Marco Aurelio Martins (Fiocruz)

Animal research provides key information for biomedical investigation, including respiratory disease mechanisms and therapeutic strategies that cannot be obtained using only alternative methods. Non-animal approaches based on experimental cells or tissues/organs settings may also help predict clinical outcomes. Indeed, substantial advances in understanding pathogenic mechanisms underlying chronic obstructive pulmonary diseases (COPD), asthma, and many other diseases have been reached using *in vitro* and *ex-vivo* assays. However, the complexity of these pathological conditions requires more *in vivo* animal studies to predict and better characterize disease activity in patients. This is not a trivial task given the difficulty to achieve, in the diversity of animal models available, those models that can replicate the pivotal aspects of complex disorders such as glucocorticoid-resistant asthma and COPD exacerbations. It is hoped that the development of short- and long-term animal models that more properly mimic glucocorticoid refractoriness and the hallmark features of asthma and COPD exacerbations will be helpful in the identification of associated mechanisms and novel therapies. Here, I will review our work developing preclinical respiratory disease models and assessing novel drug candidates to control difficult-to-treat pulmonary dysfunctions.

S2 – The Excitatory-Inhibitory Balance as a Target to treat Mental Disorders

Excitatory-inhibitory mechanisms in stress related models: a target for pharmacological intervention. Marco A. Riva (University of Milan), Department of Pharmacological and Biomolecular Sciences, University of Milan, Milan, Italy. and Biological Psychiatry Unit, IRCCS Istituto Centro San Giovanni di Dio Fatebenefratelli, Brescia, Italy

Exposure to environmental adversities at different stages of life represents the most relevant condition linked to the etiology of mental disorders. With this regard, animal models are particularly useful to investigate the molecular and functional mechanisms that are affected after exposure to stress or other environmental adversities and that represent important targets for pharmacological interventions. For example, adverse perinatal events are associated with profound epigenomic and transcriptomic changes in the progeny, which often become manifest during the transition between adolescence and adulthood. Using the prenatal stress (PNS) model in rats, we found that emotional dysregulation was present in a sub-group of adolescent animals exposed to stress in utero (vulnerable), as compared to animals that were resilient to such manipulation. At the molecular level, we found that such behavioral patterns were associated with selective changes in the activity state of key brain regions. Moreover, adolescent rats vulnerable to PNS exposure show different responsiveness to an acute stress, with an unbalanced activation of excitatory (E) and inhibitory (I) neurons in the prefrontal cortex, suggesting an altered ability to cope under a challenging condition. We also focus on the effects of stress exposure in adulthood. Using the chronic mild stress (CMS) model, based upon repeated exposure to variable stressors, we found that the anhedonic phenotype in CMS rats is associated with significant changes in selected GABAergic markers, which may be linked to redox dysregulation. Such alterations are improved following chronic treatment with the antipsychotic drug lurasidone, which was also capable of restoring the balanced responsiveness of excitatory and inhibitory circuits after challenging conditions. Overall, our studies demonstrate that a dysregulation of the E/I balance is an important molecular mechanism contributing to long-term dysfunction in stress-related disorders and may represent a target for therapeutic intervention aimed at ameliorating specific pathologic domains that are shared among different mental disorders. Keywords: stress; resilience; vulnerability; brain activity. M.A. Riva has received compensation as speaker/consultant from Angelini, Lundbeck, Iqvia, Otzuka,

Sumitomo Pharma. Moreover M.A. Riva has received research grants from Sumitomo Dainippon Pharma.

Fixing broken synapses: glutamatergic and GABAergic dysfunction in depression and reversal by novel treatments. Manoela V. Fogaça, PhD, Assistant Professor of Pharmacology and Physiology and Neuroscience, Department of Pharmacology and Physiology, Department of Neuroscience, University of Rochester Medical Center

Major Depressive Disorder (MDD) is a recurring neuropsychiatric illness that affects nearly 1 in 5 individuals during their lifetime and is a leading cause of disability worldwide. While the mechanisms underlying the pathophysiology of MDD remain to be fully elucidated, growing evidence highlights the impact of chronic stress exposure in inducing neuronal atrophy in glutamatergic neurons and reducing the function of GABAergic interneurons, notably somatostatin and parvalbumin subtypes, within the medial prefrontal cortex (mPFC). These changes disrupt the optimal balance between cortical excitation and inhibition (E:I), compromising the signal transfer to target regions and leading to maladaptive states that can result in stress-related conditions. Despite MDD's high prevalence, traditional treatments exhibit suboptimal effectiveness. A notable breakthrough in drug intervention comes from the discovery that low doses of ketamine, an NMDA receptor (NMDA-R) blocker, induce rapid and sustained antidepressant effects, although with significant side effects like psychotomimetic actions, limiting its therapeutic use. In parallel with animal model studies of stress, investigating the mechanisms of rapid antidepressants, including ketamine and scopolamine (a non-selective muscarinic acetylcholine receptor antagonist), holds promise in unraveling complex circuit changes in MDD's pathophysiology. This talk offers an overview of our recent studies using cutting-edge approaches, including transgenic animal models and circuit-level investigations (optogenetics, chemogenetics and calcium imaging *in vivo*), to explore how the crosstalk between specific neuronal subpopulations in the mPFC modulates the E:I balance, leading to phenotypes relevant to stress disorders and to the actions of fast antidepressants. Moreover, the talk provides new insights into emerging classes of drugs that directly or indirectly target the glutamatergic and/or GABAergic systems as rapid antidepressants, representing novel approaches for MDD treatment. Funding: NARSAD Young Investigator Award (BBRF Foundation); National Institutes of Mental Health (NIMH)

Biomarkers that capture excitation-inhibition imbalance in humans. Patricio O'Donnell, MD PhD, Sage Therapeutics

The balance between excitatory and inhibitory synapses in cortical circuits is thought to become impaired in many conditions that produce a variety of psychiatric symptoms. Schizophrenia is an example of a disorder in which parvalbumin positive interneurons become dysfunctional altering such balance and driving cognitive impairment and leading to altered dopamine function. For the past 20 years, several novel pharmacological approaches that rely on glutamate and GABA synaptic modulation have emerged, but the results of those trials have been less than conclusive. As schizophrenia is a heterogeneous condition and not all patients may exhibit excitation-inhibition imbalance, it is imperative for the field to progress to identify, validate, and implement a functional biomarker that captures objectively excitation-inhibition balance. There have been several tested over the years, most notably, evoked potentials and spectral EEG signals. The ERP Biomarker Qualification Consortium (https://erpbiomarkers.org) sponsored a study that quantified the magnitude and reliability of ketamine-induced changes on Event Related Potentials (ERP) and Quantitative EEG (QEEG) measures in healthy volunteers (HV). The study was a randomized double blind, placebo-controlled 3-arm, 3-period crossover design (NCT04928703). Twenty-four HV age 21 to 40 were administered Ketamine IV on two of the periods and Placebo on the remaining period in a counterbalanced order. Ketamine induced increases in N100 amplitude, N100 and P200 latency, and a decrease in P3b and P200 amplitude in the active oddball task, a decrease in low frequency power and increase in gamma power in the resting EEG, and an increase in 40

Hz power in the auditory steady state response (ASSR). For mismatch negativity (MMN), the effects of ketamine depended strongly on the baseline characteristics. The data confirm ERPs are sensitive to an NMDA receptor antagonist and the data can be consistent across multiple sites in a human trial.

S3 – Redox Opportunities in the Treatment of Cardiovascular Diseases

Poldip2 controls brain vascular permeability by regulating ROS-mediated tight junction phosphorylation and localization. Keke Wang, MD[1,2], Hongyan Qu, MS[1], Ruinan Hu, MD[1], Bernard Lassègue, PhD[1], Douglas C. Eaton, PhD[3], Chang Song, MD[3], Jianjun Mu PhD[2], Kathy K. Griendling, PhD[1], Marina S. Hernandes PhD[1*] [1]Division of Cardiology, Department of Medicine, Emory University, Atlanta, GA, USA. [2] Department of Cardiovascular Medicine, First Affiliated Hospital of Xi'an Jiaotong University, Xi'an, China. [3] Division of Nephrology, Department of Medicine, Emory University, Atlanta, GA, USA.
Polymerase delta interacting protein 2 (Poldip2) is a novel regulator of vascular permeability that has been shown to be involved in aggravating blood-brain barrier (BBB) disruption following stroke; however, the underlying mechanisms are unknown. While endothelial tight junctions (TJ) are critical mediators of BBB permeability, the effect of Poldip2 on TJ function has not been elucidated yet. Here, we aim to define the mechanism by which Poldip2 mediates BBB disruption, specifically focusing on phosphorylation and stabilization of the TJ integral protein ZO-1. Cerebral ischemia was induced in endothelial-specific knockout mice and controls. Cerebral vascular permeability was assessed by Evans blue dye extravasation. Endothelial-specific Poldip2 deletion abolished Evans blue dye extravasation after ischemia induction. *In vitro* permeability assays demonstrated that Poldip2 knockdown suppressed TNF-α-induced endothelial cell (EC) permeability. Immunofluorescence staining showed that Poldip2 depletion prevented TNF-α-induced ZO-1 disruption at interendothelial area. Conversely, Poldip2 overexpression increased endothelial permeability, loss of ZO-1 localization at cell-cell junctions and enhanced reactive oxygen species (ROS) production. Treatment with the antioxidant N-acetyl cysteine (NAC) reduced Poldip2-induced ZO-1 disruption at interendothelial area. Immunoprecipitation studies demonstrated Poldip2 overexpression induced tyrosine phosphorylation of ZO-1, which was prevented by the treatment with NAC and MitoTEMPO, a mitochondrial ROS scavenger. These data indicate a novel mitochondrial ROS-driven mechanism by which Poldip2 induces ZO-1 tyrosine phosphorylation and promotes ECs permeability following cerebral ischemia. Financial support: This study was supported by NIH grant 1R01NS127964, P01 HL095070, HL152167, and DK110409. Keke Wang was funded by The China Scholarship Council (CSC) (No. 201806280493)

Protein Disulfide Isomerase and Nox: Novel Redox Therapeutic Targets in the Treatment of Hypertension. Livia De Lucca CAMARGO[1, 2*], Silvia Cellone TREVELIN[1,3*], Guilherme Henrique Gatti da SILVA[1], Ana Alice dos Santos DIAS[1], Maria Aparecida Oliveira[1,] Olga Mikhaylichenko[3], Aline C.D. ANDROWIKI[1], Celio Xavier dos SANTOS[3], Lisa-Marie HOLBROOK[4], Graziela Scalianti CERAVOLO[5], Alexandre DENADAI-SOUZA[6], Izabela Martina Ramos RIBEIRO[1] , Simone SARTORETTO[1,7], Francisco Rafael Martins LAURINDO[8], Patricia Pereira COLTRI[1], Vagner Roberto ANTUNES[1], Rhian TOUYZ[2], Francis J MILLER Jr.[7,], Ajay M SHAH[3], Lucia Rossetti LOPES[1*]. 1. Institute of Biomedical Sciences, University of São Paulo, São Paulo, Brazil, 2. Research Institute Mc Gill University Health Centre, Montreal, Canada, 3. Cardiovascular Division, King's College London, London, United Kingdom, 4. School of Veterinary Medicine, University of Surrey, Guilford, United Kingdom, 5. Department of Physiological Sciences, State University of Londrina, Londrina, Brazil, 6.Translational Research in Gastrointestinal Disorders, University of Leuven, Belgium. 7. Duke University, Durham, USA 8. Heart Institute, University of São Paulo, Brazil
We identified protein disulfide isomerase A1 (PDI) as a novel regulatory protein which contributes to NADPH oxidase 1 (Nox1) signaling in VSMCs. Spontaneously hypertensive rats (SHR) have increased levels of PDI in mesenteric resistance arteries as compared to Wistar, however its consequences in blood pressure elevation remained unclear. Herein, we

demonstrate that PDI contributes to development of hypertension via up-regulation of Nox1 transcription in vascular smooth muscle cells (VSMCs), which potentiate angiotensin II (ANG II) mediated transactivation of EGFR (epidermal growth factor receptor). SHR display higher levels of HB-EGF (heparin-binding EGF-like growth factor) in the plasma, which positively correlated with increases in blood pressure, ROS generation, Nox1 mRNA levels and expression of PDI in mesenteric resistance vessels. PDI overexpression increased VSMCs wound healing and intracellular calcium mobilization by ANG II. PDI silencing or pharmacological inhibition in VSMCs significantly decreases Nox1 transcription, ROS production, vascular contraction, calcium influx, c-Src and ERK1/2 activation; whereas overexpression of PDI in VSMCs enhances Nox1 mRNA synthesis induced by EGFR activation and promotes ATF1 translocation to the nucleus. Co-immunoprecipitation using anti-PDI antibody in nuclear fractions of cells overexpressing PDI and stimulated with HB-EGF revealed an interaction between PDI and ATF1. The products of ATF1 chromatin immunoprecipitation were tested for amplification of Nox1 promoter and six distal regions that are enhancers for Nox1 transcription. ATF1 did not interact directly with the Nox1 promoter region, but significantly bound to three of the regions tested: Nox1 Proximal 1 and Nox1 distal 5 and 6 in cells overexpressing PDI and stimulated with HB-EGF. Mechanistically, PDI increases the contractile responses to ANG II through regulating store operated calcium influx and potentiates ATF1-induced Nox1 transcription. Altogether, we demonstrate that PDI enhances Nox1 gene expression and vascular reactivity in SHR resistance vessels. Thus, PDI and Nox1 contribute to vascular dysfunction and could represent novel therapeutic targets in hypertension. Apoio Financeiro: FAPESP e CNPq

S4 – Targeting Metabolic Dysfunctions and Obesity: New Approaches and Insigths

Effects of Dietary Fiber on Intestinal Microbiota and Behavioral and Neurobiochemical Changes in a Murine Model of Huntington's Disease. Fabíola M. Ribeiro (UFMG) and Juliana Brandi (UFMG)

Huntington's disease (HD) is an autosomal dominant neurodegenerative disorder characterized by progressive motor, cognitive, and psychiatric symptoms, caused by an expanded polyglutamine tract in the amino-terminal region of the huntingtin protein. Mutant huntingtin results in neuronal dysfunction and death, particularly affecting neurons in the striatum. Although genetic components greatly determine the age of symptom onset and severity, studies have shown that environmental factors also affect disease progression and suggest that lifestyle changes, such as dietary modifications, can increase the health span of patients. Thus, this is a possibility worth pursuing as there are no disease-modifying therapies to treat HD patients. Dietary fiber significantly influences the composition of the intestinal microbiota and contributes to the production of short-chain fatty acids (SCFAs), crucial for communication between intestinal microbiota and brain. It has been shown that SCFAs have the potential to enhance neurological protection and decrease neuroinflammation. In the present study, we examined the impact of dietary fiber on cultivable microbiota and motor behavior in a Knock-in murine model of HD, the zQ175 mice. Heterozygous zQ175 and wild-type (WT) mice, male and female, were fed by three diets: high fiber (HF), fiber free (LF) and control, normal fiber (NF), starting when the animals were six weeks of age. We assessed cultivable intestinal microbiota before dietary introduction, during weaning and at 12 and 32 weeks of age. Additionally, we investigated diet effects through motor behavior tests and weight gain analysis. During weaning, zQ175 cultivable intestinal microbiota did not differ from WT. However, after diet onset, alterations in specific bacterial groups were observed. The high-fiber diet elevated the number of *Enterobacteriaceae* in male zQ175 mice, but not in WT, while in the case of females, it augmented enterobacteria irrespective of genotype. Moreover, high-fiber diet altered motor phenotype in zQ175 mice. The diets affected weight gain in zQ175 mice, with the LF diet leading to an early decline in weight, while the HF diet postponed this decline. Our data demonstrate dietary fiber's ability to modulate the zQ175 intestinal microbiota, in a sex-specific manner, and also impacting animal weight.

Metabolic Programming of Obesity: Can Prevention be Achieved? Cristiane Matte, Biochemistry Department, Federal University of Rio Grande do Sul

The Developmental Origins of Health and Disease (DOHaD) concept posits that environmental exposures during critical periods of development, particularly in utero and early childhood, can have profound and long-lasting effects on health outcomes later in life. DOHaD concept suggests that adverse conditions experienced during these developmental windows can predispose individuals to an increased risk of chronic diseases, including obesity, cardiovascular disease, and diabetes, in adulthood. On the other hand, maternal exercise during pregnancy represents an environmental factor that can influence the developmental trajectory of the offspring. Research suggests that maternal exercise can exert beneficial effects on both maternal and fetal health, including improved metabolic function, reduced risk of gestational diabetes, and enhanced placental function. Importantly, these maternal adaptations to exercise can also impact the long-term health outcomes of the offspring. In the context, maternal exercise may serve as a potential intervention strategy to mitigate the risk of obesity and related metabolic disorders in adulthood. Excess adiposity is associated with inflammation, oxidative stress, and impaired insulin signaling, all of which can negatively impact brain health. Obesity has been linked to cognitive decline, memory impairment, and an increased risk of neurodegenerative diseases such as Alzheimer's disease. Therefore, efforts to prevent obesity through exercise are crucial not only for physical health but also for preserving cognitive function and maintaining brain health across the lifespan. Incorporating regular exercise into one's routine not only helps to manage weight and improve metabolic health but also promotes neuroplasticity, enhances antioxidant network, improves mitochondrial function and reduces the risk of cognitive decline. Maternal exercise has been shown to induce similarly positive lifelong adaptations in offspring. In our study, we hypothesized that maternal exercise could mitigate redox imbalance in the offspring's brain exposed to a high-fat diet (HFD). Evaluating the redox status, we showed the detrimental effects of HFD exposure during adult life, and the potential prevention elicited by maternal exercise. Keywords: DOHaD, maternal exercise, obesity, redox status.

Mechanisms by Which Chronic Hyperpalatable Diet may induce Cognitive Alterations. Roberta Ribeiro1, Emanuele G. Silva2, Felipe C.Moreira2, Giovanni F. Gomes1, Gabriela Cussat1, Barbara Silva1, Maria Carolina Silva1, Heliana Fernandes3, Carolina Oliveira1, Leonardo Guarnieri4, Victoria Lopes5, Cláudia N. Ferreira5, Ana Maria Caetano de Faria2, Tatiani Maioli2, Fabíola M. Ribeiro2, Aline S. de Miranda3, Grace S.P. Moraes4, Antônio Carlos P. Oliveira1 & Luciene B. Vieira1 1Department of Pharmacology, 2Department of Immunology and Biochemistry, , 3Department of Morphology, 4Department of Physiology and Biophysics, 5Colégio Técnico, Universidade Federal de Minas Gerais (UFMG)

Chronic consumption of hyperpalatable and hypercaloric foods has been pointed out as a factor associated with cognitive decline and memory impairment in obesity. In this context, the integration between peripheral and central inflammation may play a significant role in the negative effects of an obesogenic environment on memory. However, little is known about how obesity-related peripheral inflammation affects specific neurotransmission systems involved with memory regulation. Here, we test the hypothesis that chronic exposure to a highly palatable diet may cause neuroinflammation, glutamatergic dysfunction, and memory impairment. For that, we exposed C57BL/6J mice to a high sugar and butter diet (HSB) for 12 weeks, and we investigated its effects on behavior, glial reactivity, blood–brain barrier permeability, pro-inflammatory features, glutamatergic alterations, plasticity, and fractalkine-CX3CR1 axis. Our results revealed that HSB diet induced a decrease in memory reconsolidation and extinction, as well as an increase in hippocampal glutamate levels. Although our data indicated a peripheral pro-inflammatory profile, we did not observe hippocampal neuroinflammatory features. Furthermore, we also observed that the HSB diet increased hippocampal fractalkine levels, a key chemokine associated with neuroprotection and inflammatory regulation. Then, we hypothesized that the elevation on glutamate levels may saturate synaptic communication,

partially limiting plasticity, whereas fractalkine levels increase as a strategy to decrease glutamatergic damage. Funding: CNPq, CAPES, FAPEMIG, PRPq UFMG.

S5 – Cellular Plasticity in Inflammation

Neutrophil Extracellular Traps (Nets) support Cancer Progression by Induction of Chemoresistant Phenotypes. Robson Q. Monteiro Institute of Medical Biochemistry Leopoldo de Meis, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil.
The cellular complexity of tumors is well-established in the literature. Solid tumors contain various cell types, including inflammatory and immune cells (neutrophils, macrophages, lymphocytes), platelets, fibroblasts, etc. Immune cells can acquire pro-tumor properties, which are crucial in cancer progression. Neutrophils have received particular attention in recent years among the immune cells in the tumor microenvironment. The formation of extracellular neutrophil traps (NETs) has been implicated in primary growth, tumor cell dissemination, and cancer-associated thrombosis. NETs comprise double-stranded DNA decorated with neutrophil nuclear, membrane, and granular proteins, such as citrullinated histones, integrins, and elastase. We have demonstrated that NETs promote the activation of proinflammatory pathways, trigger epithelial-mesenchymal transition (EMT), and increase cell migration using in vitro breast cancer models. Remarkably, exposure of cultured cells to isolated NETs confers a chemoresistant phenotype via the PI3K/AKT/NF-kB signaling pathway. Our findings suggest that modulation of NETs formation or activity might represent an attractive therapeutic target to limit tumor progression. Key Words: cancer; neutrophil extracellular traps; signaling pathway. Financial support: CNPq, FAPERJ, CAPES, and Fundação do Câncer/Programa de Oncobiologia.

Effect of tumor extracellular vesicles on neutrophil polarization. Amorim, Carolinne[1]; Guimarães-Bastos, Daniel[1]; Amorim, Nycole[1]; Renovato-Martins, Mariana[2]; Barja-Fidalgo, Christina[3]; Moraes, João Alfredo[1]. 1 Laboratório de Biologia RedOx, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil 2 Laboratório de Farmacologia Celular e Molecular, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brasil 3 Laboratório de Inflamação e Metabolismo, Universidade Federal Fluminense, Niterói, Brasi
Currently, tumor cells are no longer seen as isolated islands within tissues. It is necessary to know the tumor's microenvironment to understand tumor growth, which is composed of different cell types. Traditionally, the immune system cells are considered protective of the body, eliminating both infections and potential tumor cells. However, these cells have their functions modified during tumor progression, being alternatively activated to act against the organism and favor the tumor. Recent studies have shown the existence of two different phenotypes that neutrophils can assume in the tumor focus, called N1 (anti-tumor) and N2 (pro-tumor). Evidence shows that this microenvironment is rich in small plasma membrane fragments produced abundantly by the tumor, called extracellular vesicles (EVs), which can affect other cells. However, few studies show the contribution of this interaction in the modulation of neutrophils. Our group developed an *in vitro* model of polarization of human neutrophils for the N1 or N2 type phenotype. We established a protocol for the purification of EVs produced from melanoma and breast cancer cells to study the interaction of these EVs with human neutrophils. Our data show that EVs play an essential role in the polarization of neutrophils to N2 type phenotype, which in turn could favor the tumor both in loco and in the premetastatic niche. We also observed that tumor EVs can activate and induce different effects on human neutrophils, which in turn can enhance tumor cell viability. Therefore, the inhibition of EVs production or effect could be a therapeutic target in cancer treatment. Thus, the elucidation of EVs release or action mechanisms could lead to discovering specific targets for cancer treatment. Keywords: Cancer, Tumor-associated neutrophils, Extracellular Vesicles.

Integrative approach to determine mechanisms and novel therapeutic targets for difficult-to-treat rheumatoid arthritis patients. Zs. Helyes[1], L. Gunkl-Tóth[1], G. Orsi[2], N. Császár-Nagy[4,6], G. Kumánovics[3], K. Csókási[5], Sz. Takács[4], E. Szigedi[6], Zs. Nagy[6], Zs. Hodoványi[6], L. Duzsik[6], Z.

Vidnyánszky[7], J. Kun[1,9], P. Urbán[9], G. Sütő[5], Gy. Nagy[8] [1]Univ. Pécs (UP), Dept. Pharmacol. Pharmacother. & HUN-REN; [2]UP, Neurology Clinic, [3]UP, Dept. Rheumatol. Immunol., [4]Nat. Univ. Public Service & Gáspár Károlyi Univ., [5]UP, Dept. Psychol., [6]Psychosomatic Outpatient Clinic, [7]HUN-REN Nat. Sci. Res. Centre, [8]Semmelweis Univ., Dept. Rheumatol. Clin. Immunol. & Budai Irgalmasrendi Hospital, [9]UP, Szentagothai Res. Centre
Background, objectives: Despite breakthroughs in rheumatoid arthritis (RA) treatment in the last decades, inflammation and/or pain persist in 15-30% of patients representing the terapy-resistant, difficult-to-treat ("D2T") subpopulation. Here we aim to characterize D2T RA patients by a multidisciplinary approach to identify risk factors, mechanisms, and relationships between persistent inflammation and pain. Methods: Clinical and laboratory examinations, complex psychological analysis (personal interview, Rorschach test, validated questionnaires), brain functional MRI (fMRI) before and after a standardized painful heat stimulation, and next-generation sequencing from total RNA of peripheral blood leukocytes (PBMC) were performed in D2T RA (30), non-D2T RA (18) patients and healthy controls (HC, 31). Results: In D2T RA patients activity and connectivity from the anterior cingulate cortex to the frontal lobe significantly increased, whereas in response to acute thermal pain connectivity from the medial temporal gyrus to several brain areas (e.g. somatosensory cortex, insula) decreased compared to non-D2T RA and HC. D2T RA patients showed relational and decision-making inhibition, decreased motivation, emotional and cognitive functions linked to these brain regions. PBMC transcriptomics revealed impaired neurotransmission, neuroinflammation, microglia activation, neuronal differentiation and synaptic plasticity. Conclusions: Brain activity and connectivity, neuroinflammatory, synaptic, neuronal differentiation and psychological abnormalities were identified in D2T RA patients that could lead to determine potential prognostic biomarkers and novel treatment options. Funding: OTKA K-138046, RRF-2.3.1-21-2022-00

S6 – Projecting the Future of Clinical Pharmacological Research in Argentina, Brazil and Chile

The future of Pharmacology: from Artificial Intelligence to Cell Therapies. Ventura Simonovich (President of the Argentine Society for Experimental Pharmacology)

The field of pharmacology is undergoing a transformative evolution, driven by advancements in technology and innovative therapeutic approaches. This dissertation explores the future of pharmacology by examining the interaction between pharmacologists and emerging trends, particularly artificial intelligence (AI), and advanced treatments including cell therapies. AI, with its advanced machine learning algorithms and predictive analytics, is poised to revolutionize how pharmacologists approach drug discovery, clinical trials, and personalized treatment regimens. By leveraging AI to analyze vast datasets, pharmacologists can identify novel drug candidates, predict therapeutic outcomes, and minimize adverse effects, thereby accelerating the development of new medications. Simultaneously, cell therapies, including stem cell and CAR-T cell therapies, are set to redefine treatment paradigms for a wide range of diseases, from cancer to genetic disorders. These therapies offer targeted, personalized interventions that address diseases at the cellular level, promising enhanced efficacy and reduced side effects. The interaction of pharmacologists with AI in the context of cell therapies further amplifies their potential, enabling precise patient selection, optimized treatment protocols, and real-time monitoring of therapeutic responses. This dissertation examines key advancements, current applications, and future prospects in pharmacology, focusing on how pharmacologists can leverage AI and cell therapies to revolutionize the field. The role of clinical pharmacologists in the clinical development is critical, and the evolution of the roles in the clinical development addressing ethical considerations, regulatory frameworks, and economic implications of these technologies. Keywords: Future of Pharmacology, Pharmacologists, Artificial Intelligence, Cell Therapies, Drug Discovery, Personalized Medicine, Clinical Trials, Stem Cell Therapy, CAR-T Cell Therapy.

From the Bench to the Patient in the Repurposing of Old Drugs for Chagas Disease. Maya, J.D.; Alfaro, S.; Kemmerling, U.; Castillo, C.; Liempi, A.; Gonzalez-Herrera, F.

Chile leads the number of clinical studies in execution approved in Latin America, although it has a rigorous legal body that constrains the possibility of performing this kind of study independently. The current regulation in Chile is rigorous and has a broad and solid legal body that regulates the way ethics committees operate, the regulatory body, called the Public Health Institute of Chile, through the subdivision of clinical studies, as well as other related norms and laws, which make it extremely complex and costly to perform a clinical study. However, a recent study carried out showed that Chile shows the highest rate of clinical studies in execution per 100,000 inhabitants, followed by Argentina, which occupies first place in studies on infectious diseases and metabolic or mental health. Here, we expose the path followed from basic and preclinical research to a clinical study proposal to repurpose statins for Chagas disease treatment, conducted independently and with government funding.
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S7 – SGLT2 and GLP1 Drugs Transcend Endocrine Benefits and Produce Cardiovascular and Renal Protection

Background of SGLT2 Inhibitors and GLP1 Agonists. José Wilson do Nascimento Corrêa (UFAM) Diabetes mellitus and obesity are chronic non-communicable conditions with a high impact on society. In recent years, we have seen the emergence of new pharmacological treatment options for diabetes, such as Na+-glucose cotransporter 2 inhibitors (iSGLT2) and glucagon-like 1 peptide receptor agonists (GLP-1RA). It is widely acknowledged that both treatments enhance lipid and carbohydrate metabolism, leading to improved glycemic control and weight loss. Importantly, these drugs have also demonstrated the potential to improve cardiovascular and renal outcomes in diabetic patients. During this discussion, we will delve into the introduction of these new therapeutic options with particular interest in their effects beyond glycemic control, providing the necessary background for evaluating their effectiveness in various scenarios, including cardiovascular and renal diseases such as infarction and heart failure, the actions of SGLT2i on Na+/H+ exchanger (NHE1) in the heart, in addition to the renal and cardiovascular actions of GLP-1RA in hypertension.

Cardiovascular and Renal benefits of GLP1 agonists. Adriana Castello Costa Girardi (USP-SP) The incretin hormone glucagon-like peptide 1 (GLP-1) is a key component of the signaling mechanisms promoting glucose homeostasis. Additionally, GLP-1 receptor agonists are used in the treatment of obesity due to their ability to enhance satiety and reduce appetite, leading to significant weight loss. Clinical and experimental studies have demonstrated that GLP-1 receptor agonists, including GLP-1 itself, have favorable effects on blood pressure and reduce the risk of major cardiovascular events, independently of their effects on glycemic control and body mass index. GLP-1 receptors are present in the hypothalamus and brainstem, the carotid body, the vasculature, and the kidneys. These organs are involved in blood pressure regulation, have their function altered in hypertension, and benefit positively from treatment with GLP-1 receptor agonists. In this presentation, I intend to discuss the potential renal and cardiovascular mechanisms whereby activation of GLP-1R signaling exerts blood pressure-lowering effects beyond glycemic control and body weight reduction.

Cardiovascular and renal benefits of SGLT2 inhibitors. Coert J Zuurbier, Amsterdam Cardiovascular Science Institute, Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands
SGLT2 inhibitors (SGLT2i) are now guideline-recommended therapies for diabetic, heart failure and kidney patients. Originally developed to reduce glucose-reabsorption through SGLT2 inhibition in the kidney, the large beneficial effects cannot all be explained by its glucose excretion effect through SGLT2 inhibition in the kidney. Various off-target effects of SGLT2i have now also been reported, especially for the heart and vascular cells. Here, we discuss some of these main on-target and off-target effects that can explain most of the large cardiovascular and kidney protective effects. Following shortly discussing the on-target SGLT2-

mediated effects on the kidney, focusing on hemodynamics and cellular protective signaling within the kidney, in this presentation we mainly focus on the off-target effects on the cardiovascular system. The main off-target effects that will be discussed are changes in ionic homeostasis (Na^+, Ca^{2+}) through interaction of SGLT2i's with plasma sodium loaders (NHE, NCX, Na channel) of cardiac cells (cardiomyocytes, endothelial cells, fibroblasts) that are mostly devoid of SGLT2. Knowing that increases in cytosolic Na^+ and Ca^{2+} are both markers and drivers of the development of heart failure, these changes in ionic homeostasis can then explain many of the reported down-stream beneficial effects of SGLT2i such as reductions in oxidative stress, inflammation, metabolic rewiring and structural remodeling. The role of SGLT2 protein in these effects will be examined using SGLT2 knockout animals. This work has been sponsored by the European Foundation for the Study of Diabetes (EFSD), Amsterdam UMC Cardiovascular Research, Boehringer Ingelheim, and EU Cost action Cardioprotection CA16225.

S8 – Novel Hormonal Treatments for Mood Disorders: The Brain-Gonadal Axis

Novel rapid-Acting Neurosteroid-Based Antidepressants: New Tools for the Treatment of Mood Disorders. Graziano Pinna The Psychiatric Institute, University of Illinois at Chicago, USA
Mood disorders, including major depressive disorder (MDD), postpartum depression, post-traumatic stress disorder (PTSD) are highly prevalent, constitute a significant economic burden, and remain poorly diagnosed and treated psychiatric conditions. The lack of biomarkers to guide precision medicine has hampered the development of individualized treatments for millions of individuals who suffer these disorders worldwide. While several biomarker candidates have been proposed, none has been implemented in clinical practice and treatment still relies on the prescription of selective serotonin reuptake inhibitors that show mixed efficacy and significant side effects. In corticolimbic areas, neurosteroids regulate affect by modulating neuronal excitability and inflammatory processes. Allopregnanolone and pregnanolone modulate GABA-A receptors and contribute to stress-induced mood disorders. Mounting preclinical and clinical evidence suggests that these endogenous neuromodulators are promising therapeutics for postpartum depression, MDD, and PTSD. Indeed, the neuroactive steroid, allopregnanolone has recently been approved by the USA Food and Drug Administration for the treatment of post-partum depression. Clinical studies also show efficacy for the management of MDD, and more studies are being conducted to study efficacy of this treatment for PTSD. Likewise, the endocannabinoid-like modulator, N-palmitoylethanolamine (PEA) that by activating PPAR-alpha receptor induces allopregnanolone biosynthesis, has shown efficacy in the treatment of MDD and bipolar disorder. While these new agents are coming forward in the field of neuropsychopharmacology as a new generation of fast-acting antidepressants, the hypothesis of whether their deficits underlying mood disorders could constitute valid predictive biomarkers to facilitate diagnosis and treatment of these conditions in under consideration. I will discuss the role of neurosteroids in the regulation of affect by mechanisms involving their anti-inflammatory role, and the modulation of GABA-A and NMDA receptors. A new era for the management of mood disorders has just begun with the clinical introduction of these rapid-acting psychotropic drugs

Neurosteroids and ovarian physiology: central and peripheral modulation. Myriam Raquel Laconi. Laboratorio de Fisiopatología ovárica. Instituto de Medicina y Biología Experimental de Cuyo (IMBECU-CONICET) & Facultad de Bioingeniería y Fac de Ciencias Médicas, Universidad de Mendoza, Argentina.
The term "neurosteroid" (NE) was introduced by Baulieu in 1980 to name a steroid hormone, dehydroepiandrosterone, that was found at high levels in the brain long after gonadectomy and adrenalectomy, and shown later to be synthetized by the brain. Baulieu was the discoverer of "neurosteroids" used in the fight against brain aging. NE are synthesized from cholesterol, independently of the peripheral steroidogenic endocrine glands and may actually be the active neuroprotective agents. NE can modulate neuronal excitability by genomic or by rapid non-genomic actions mediated by membrane or intracellular receptors, through interaction with

ligand-gated ion channels and other cell surface receptors or by different alternative intracellular signalling mechanisms. NE can regulate physiological functions in the central and peripheral nervous system and are usually associated with sedative, aesthetic and anti-anxiety actions. NE dysregulation plays a role in the pathophysiology of stress and stress-related psychiatric disorders such as mood and anxiety At the organismal level, NE regulate processes including sleep, learning and sexual behaviours and at cellular level, they act as neurohormones, neuromodulators, neurotransmitters and/or neurotrophic factors. In addition, there is evidence that NE can be synthetized both in ovary and adrenal glands. NE and their synthetic derivatives affect the function of γ-aminobutyric acid (GABA) and glutamate, the major inhibitory and excitatory neurotransmitters in the central nervous system (CNS). In our laboratory, we have been studying since 2001 the actions of NE first in the brain and then in the ovary, with special interest in Allopregnanolone (ALLO- active metabolite of progesterone) and potently modulator of GABAA receptors. ALLO is one of the most studied neurosteroids and its synthetic analogues have been evaluated as therapeutic agents for pathologies such as anxiety and depression. Enzymes involved in the metabolism of ALLO are expressed in classical and nonclassical steroidogenic tissues. ALLO presents high affinity and agonist activity for receptors such as nuclear progesterone receptor and membrane progesterone receptors (mPR), among others. Initially, in an *in vivo* murine experiment we focused on behavioural effects of one icv pharmacological dose of ALLO using several behavioural tasks (open field, elevated plus maze test, sexual receptivity test). The first results indicated that ALLO was able to inhibit the pre-ovulatory peak of LH and the female sexual receptivity and at the same time acting as a potent anxiolytic. After that, the main question was what was happening at the ovarian level? The same dose of ALLO induced inhibition of ovulation and caused morphological and physiological alterations in both follicles and corpora lutea. ALLO was able to inhibit follicular apoptosis and stimulate the proliferation of luteal cells, causing a prolongation of the lifespan of the corpora lutea of rats. ALLO is known to exert a wide range of effects through non-genomic action on GABAAR, then in all the previous experiments it was proved that the mechanism of action was thought GABAa receptor, using a specific inhibitor (bicuculine) combined with ALLO. To analyse ALLO effect on the peripheral nervous system, we used an *ex vivo* culture that comprised the superior mesenteric ganglion – ovarian nerve plexus- ovary system. This methodological approach allows to emulate *in vivo* conditions by preserving the neural connection between the SMG and the ovary, as well as autocrine and paracrine mechanisms, without the humoral influence. ALLO was able to alter ovarian physiology through neural modulation, as well as modify the pro/anti- apoptotic balance, and augment cellular proliferation, angiogenesis and ovarian GABAAR expression in a dose- dependent manner. These changes correspond to the activation of different mechanisms in the sympathetic ovarian innervation, probably through GABA modulation. Subsequently, we determine whether an i.c.v. administration of allopregnanolone (ALLO) rapidly modifies the hypothalamic and ovarian 3β-hydroxysteroid dehydrogenase (3β-HSD) enzymatic activity and gene expression in *in vivo* and *ex vivo* systems in pro-oestrus (PE) and dioestrus I (DI) rats. In the *in vivo* experiments, ALLO caused a decrease in hypothalamic and ovarian 3β-HSD enzymatic activity during PE. During DI, ALLO increased hypothalamic and ovarian 3β-HSD activity and gene expression. The ovarian 3β-HSD activity increased in both stages in the ex vivo system; gene expression increased only during DI. ALLO induced an increase in serum progesterone only in D1 and in the ovarian incubation liquids in both stages. All findings were reversed by an injection of bicuculline before ALLO. Ovarian steroidogenic changes could be attributed to signals coming from ganglion neurones, which are affected by the acute central neurosteroid stimulation. We also evaluated in other experimental model, the effects of direct intrabursal ALLO administration. Animals were treated on the proestrus stage and sacrificed 24 h later, on the morning of oestrus. The administration of ALLO altered several processes of the ovarian morpho-physiology of the rat, it inhibited luteal regression, increased follicular atresia,

angiogenesis and ovarian progesterone and estrogen steroidogenesis, which could be related to oocyte quality and fertility, one more time some ALLO effects occurred through the GABAAR. Other research groups showed that low physiological concentrations of ALLO induce the progression of several types of cancer, such as breast, ovarian, and glioblastoma, while high concentrations inhibit it. While findings in our newest line of research regarding the ALLO effects on ovarian cancer demonstrate that ALLO modifies ovarian morpho physiology, being able to alter critical process of tumour development such as proliferation, apoptosis and angiogenesis. Considering these antecedents, we investigated the effect of progesterone and ALLO on proliferation, apoptosis, clonogenic capacity and migration on two epithelial human ovarian cancer cell lines, IGROV-1 and SKOV-3. IGROV-1 and SKOV-3 cells were exposed to a range of progesterone and allopregnanolone concentrations (10-11 to 10-5 M) for 72 h. Proliferation was analysed by MTT and Ki67 expression, apoptosis was measured by immunocytochemistry of cleaved caspase 3, clonogenic capacity was evaluated by counting colonies and migration was analysed by wound assay. We found that ALLO increased proliferation and Ki67 expression respect to control on IGROV-1 cells. IGROV-1 clonogenic capacity was also increased by allopregnanolone treatment. Both steroids, progesterone and allopregnanolone, increased IGROV-1 migration in a concentration dependent manner. This was the first evidence that ALLO, affects critical events in tumour development of human epithelial ovarian cancer. These results could have an impact in the future in clinic diagnosis, prognosis and treatment of ovarian cancer patients. The regulation of progesterone and allopregnanolone steroidogenesis and their molecular mechanisms might be considered as potential therapeutic tool in ovarian cancer. Finally, our results provide an important insight about how neurosteroids interacts at different levels as CNS, PNS and the ovary. These findings might help devise some of the pleiotropic effects of neurosteroids on female reproduction. ALLO modulation of ovarian physiology might help uncover novel treatment approaches for reproductive diseases. These new evidence about the role of ALLO in ovarian carcinogenesis, focusing on potential new pharmacological strategies that will use NE for therapeutic purposes.

S9 – New Targets for Neuropathic Pain and Migraine-Related Pain Relief

Targeting mitochondria for chronic pain relief. Vanessa Olzon Zambelli (IBu)

Mitochondria play a crucial role in various intracellular processes, and mitochondrial dysfunction is associated with the establishment and progression of multiple diseases, including neuropathic pain. Mitochondrial detoxification systems counteract the toxic and degenerative effect of excessive reactive oxygen species (ROS) and aldehydes accumulation. Aldehyde dehydrogenase-2 (ALDH-2) is a mitochondrial enzyme responsible for detoxifying aldehydes produced from lipid peroxidation. Additionally, mitochondria form a dynamic and heterogeneous network that conditionally undergoes fusion and fission. These processes adjust mitochondrial number and size based on the metabolic demand of cell, tissue and organ in both health and disease. GTPases like mitofusins 1 and 2 (Mfn1 and Mfn2), and dynamin-related protein 1 (Drp1) that regulate mitochondrial fusion and fission, respectively, are essential for regulating mitochondrial plasticity. Interestingly, there is a causal correlation between impaired mitochondrial metabolism and the development of neuropathies. Using different models of neuropathic pain, combined with gain and loss of function strategies, we sought to investigate the potential role detoxification and mitochondrial dynamics in neuropathic pain. Our findings demonstrate that ALDH2 is a critical enzyme involved in neuropathic pain, controlling peripheral aldehydic load and neuroinflammation. Furthermore, excessive mitochondrial fission in the dorsal root ganglia contributes to the progression of paclitaxel-induced neuropathy. Finally, using pharmacological strategies to restore ALDH2 activity or target Drp1-1 mediated mitochondrial dysfunction ameliorates neuropathic pain development, suggesting that ALDH2 and Drp1 are promising targets for treating neuropathic pain. Therefore, the development of novel interventions capable of restoring mitochondrial function might be an effective strategy

to counteract the progression of pain. Financial Support: FAPESP (2016/14385-0, 2017/16071-5, 2021/14831-8, 2022/15640-4)

Contribution of Cav3.2 to migraine-related responses *in vivo* **and** *in vitro*. Darciane Favero Baggio[1], Fernanda M R da Luz[1], Eder Gambeta[2], Gerald W Zamponi[2], Juliana Geremias Chichorro Migraine is a complex and highly incapacitating neurological disorder that affects around 15% of the general population with greater incidence in women. Migraine physiopathology is still not fully understood, but mechanisms operated by CGRP in the trigeminal ganglion (TG) are suggested to play a crucial role. The voltage-gated calcium channels are classified in high voltage-activated and low voltage-activated, which include Cav 3.1, 3.2 and 3.3, also known as T-types. It has been suggested that T-Types are expressed in the TG where they mediate neuron-glia crosstalk, but the contribution of each subtype is unknown. Herein it was investigated the role of Cav3.2 to migraine-related responses *in vivo* and *in vitro*. It was performed whole-cell voltage-clamp recordings in HEK cells transfected with Cav3.2, which were incubated with vehicle or CGRP and none of the treatments affected any of the biophysical properties of Cav3.2. When HEK cells were co-transfected with Cav3.2 plus the CGRP receptor and incubated with CGRP no changes were observed in the IV curve or in the peak current density. However, CGRP induced a depolarizing shift in the steady-state inactivation curve, suggesting a modulatory effect. Next, we performed voltage-clamp recordings in acutely dissociated TG neurons from wild-type and Cav3.2 knockout mice, and we found that incubation with CGRP increased T-type current density over 3.5-fold in WT but not knockout mice. In addition, acute treatment with the pan T-type blocker Z944 inhibited 80% of the T-type calcium channels current in both TG neurons treated with vehicle or CGRP. For the in vivo experiments, we injected CGRP into the TG of mice to induce periorbital cutaneous allodynia. We found that male and female WT, but not CAV3.2 knockout mice developed mechanical allodynia after CGRP injection. Likewise, systemic pretreatment with Z944 prevented the development of mechanical allodynia induced by intraganglionar CGRP injection in male and female mice. In conclusion CGRP modulates CaV 3.2, leading to increased T-type calcium currents, which can contribute to CGRP-intraganglionar signaling. Financial support: Capes and CNPq.

TRPA1 and TRPV4 Receptors as a new targets for pain control in multiple sclerosis Gabriela Trevisan (UFSM)

Multiple sclerosis (MS) is a chronic autoimmune disease of the central nervous system with severe demyelination and neurodegeneration. Different symptoms can be observed during the evolution of MS such as neurological, visual, and cognitive deficits, as well as pain and anxiety. Neuropathic pain and migraine are common sensory alterations difficult to manage in MS patients. In the different clinical types of MS, pain, and neuroinflammation are related to oxidative stress and the infiltration of inflammatory cells in the CNS. These oxidative compounds could activate ion channels, such as transient receptor potential ankyrin 1 (TRPA1) and vanilloid 4 (TRPV4). Thus, we aimed to recognize the participation of the TRPA1 and TRPV4 receptors in neuroinflammation and nociception detected in an experimental rodent model of MS. For that, naïve C57BL/6 female mice and mice with TRPA1 and TRPV4 gene deletion were used (25-30 g) to induce a model of recurrent remitting multiple sclerosis (RRMS). TRPA1 role was studied in migraine- and neuropathic-like symptoms and TRPV4 participation was detected in neuropathic-like symptoms. Selective antagonists of both TRPA1 and TRPV4 reduced nociception in this model, also TRPA1 and TRPV4 gene deletion prevented hypersensitivity induced by the RRMS model. However, TRPV4 seems to be more relevant to the induction of neuroinflammation in the RRMS model. Then, these channels may be studied as relevant targets for pain control in MS-induced neuropathic pain and migraine. Funding: Gabriela Trevisan is the recipient of a fellowship from the CNPq [process #303531/2020-7], L'ORÉAL–ABC–UNESCO Para Mulheres na Ciência, 2016 and Prêmio Capes de Teses–Ciências Biológicas II, CAPES, 2014 [process #23038.006930/2014/59]. Gabriela Trevisan is the recipient of a research grant from the Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul

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S10 – PBPK, PBBM, POPPK, POPPKPD, QSP: What does this Alphabet Soup have to do with Pharmacology?

PBPK Models to Inform Decision Making in Drug Development: from Early Phases to Formulation Design. Manuel Ibarra (Universidad de la República, Uruguay)

In the context of quantitative pharmacology, the use of Physiologically Based Pharmacokinetic (PBPK) models has become established as one of the primary tools applied within the model-informed drug development (MIDD) paradigm. These models serve as a platform for integrating information from various sources and using it to make mechanistic extrapolations, thereby maximizing the use of available knowledge, experimental data, and reported data to improve the quality, efficiency, and cost-effectiveness of decision-making. Over the years, PBPK modeling and simulation have transitioned to a regulatory necessity with the potential to reduce clinical and preclinical experimentation. The applications of PBPK models range from the early phases of drug discovery and development to dose optimization in the clinical setting. In this talk, the scientific background of PBPK modeling will be covered, along with the related software that has led to a noticeable increase in its application and realization of its value in pharmacology and pharmaceutical applications. The focus will be on the implementations of PBPK models that can have a significant impact in Latin America, showcasing the opportunities, limitations, and caveats. Specifically, the examples will demonstrate: 1) the application of PBPK to inform drug candidate selection and the optimal design of preclinical experiments; and 2) the use of PBPK models to inform drug product development and evaluation through the integration of in vitro characterization of formulation performance in the context of Physiologically-Based Biopharmaceutics Modeling. The latter will show how this approach can be implemented in the drug product development of innovative formulations (e.g., controlled drug release) and generic products.

Roundtable

RT1 – A View on Postgraduate Courses in Pharmacology in Brazil: Perspectives and Challenges (Um Olhar sobre a Pós-Graduação em Farmacologia no Brasil: Perspectivas e Desafios)

Profile of Pharmacology Graduate Students (Perfil dos pós-graduandos em farmacologia). Mauricio Schuler Nin (UFCSPA, SBFTE Jovem)

With the aim of evaluating the profile of graduate students enrolled in Graduate Programs (PPGs) in pharmacology in the country, as well as graduate students working in lines of research linked to pharmacology in other PPGs, the SBFTE Young Committee and the Permanent SBFTE Forum of Postgraduate Education in Pharmacology will apply a survey in the second semester of 2024. The purpose of this survey is to obtain data that allows the Society to better understand the current context of technical-scientific production, as well as needs and strengths present in the most diverse postgraduate programs linked to pharmacology in the country. Through this survey, it will be possible to understand the characteristics of the affiliations and their geographic stratifications, the understanding of which research area the projects fall into, the characteristics of the graduate students' previous academic training and their ethnic and gender identity. In addition, remuneration attributes and living conditions of graduate students will be observed, and the perception of whether the lack of graduate studies focused on pharmacology promotes migration amongst researchers. The results of this survey will be presented for the first time at the congress and are being collected at the time of confirmation of this activity at the event.

RT2 – Beyond the Academy (Além da Academia)

The Opportunities in Animal and Plant Health and Inspection and Future Perspectives (As oportunidades e Inspeção em Saude Agropecuaria e perspectivas futuras). Fabiano Barreto (MAPA--LFDA-RS)

Considering the recent changes in the labor market and the necessary skills for the qualified execution of activities, the need for updating and adaptability to achieve results in such a dynamic environment becomes evident. This need is also replicated among the different agents of public administration, which are subjected to an increasing volume of demands for the optimization and effectiveness of their actions. One of the main points for optimizing public performance is related to the correct management of data to obtain strategic information that enables decision-making and the delineation of assertive public policies. In this scenario, there is a demand for professionals with an academic background who can incorporate their views, critical thinking, and knowledge within the regulatory framework, introducing elements of innovation, which are so necessary for the good evolution and execution of public function.

Additionally, there is a need for public entities to seek integration with research centers, providing work options and fostering the creation of integrated knowledge. Specifically addressing the laboratory area, it is fundamental to integrate with other areas based on the concepts of One Health, allowing for the optimization of efforts and systemic thinking to seek and present solutions. The Federal Laboratory of Animal and Plant Health and Inspection – LFDA/RS, belonging to the Ministry of Agriculture and Livestock - MAPA, has been working to seek integration and providing, through its structure, possibilities for technological development and human resource training that can be absorbed both in the sphere of public administration and in the private sector. Additionally, the agricultural sector, which has a broad impact on economic activity, presents itself as a vast environment of opportunities and space for innovation.

Scientific Entrepreneurship and Scientific Communication as a career path (Empreendedorismo científico e comunicação científica como percurso profissional). Sandra Milena Bonilla Becerra (Science Illustrator- Independent)

The current context in the educational system has promoted a movement on the part of researchers to explore new professional paths beyond academia. Scientific entrepreneurship gains strength as a career path to boost and develop the intellectual capital, applying the knowledge acquired through academic career to create companies or innovative projects that solve real-world problems. Among the countless possibilities, the area of communication stands out as a career path for researchers, allowing them to effectively disseminate concepts and scientific results for both to specialized audiences and the public in an accessible and easily understandable way, as well as, combating disinformation and encouraging critical thinking. To contribute to the dissemination, scientific illustration, and medical and scientific writing play a vital role as a science dissemination medium, seeking to transmit scientific results in a simple, clear, and memorable way. By combining these artistic, scientific skills with those of an entrepreneur, we can see the applicability of the experience and journey career to carry out a successful career transition.

From academic to corporative carreer: the transition and business relationships step by step (Da carreira acadêmica à corporativa: a transição e as relações comerciais passo a passo). Jéssica Maria Sanches Lopes (Grupo NC)
Making a major career transition can be intimidating. But, though transitions are tough, they're possible. This transition involves leveraging academic skills and experiences to thrive in a different professional environment. Working with clinical research during my PhD in Pharmacology (FMRP/USP) was pivotal in broadening my perspective beyond academia. I began taking courses in the field, networking with professionals in the pharmaceutical industry, understanding my professional profile and aspirations, evaluating job scopes and prerequisites, exploring strategies to enhance my resume and personal brand to align them with corporate job requirements. Finally, after overcoming challenges, I successfully transitioned into a new career path. I started my career as a clinical research analyst and I currently work as Medical Science Liaison (MSL) at a national pharmaceutical industry.In my presentation, I aim to share this journey, discuss the tools I used, and inspire others to pursue new opportunities.

RT3 – Empowering Women in Science and Technology: a Roundtable Discussion on Equity.

Women in Science: The inconvenient Truth. Marcia Cristina Bernardes Barbosa (UFRGS, ex- Seppe-MCTI)
In this presentation we will show that women are subrepresented in all sciences in power positions and that in exact sciences they show underepresentation at all levels. The decrease of participation of women as one rises at the career ladder is demostrated in the case of the education in Brazil and we show that a more equitable system would be more efficient. The reason for this underrepresentations are presented and solutions are suggested

Just a Latin-American (Scientist) Girl: A Personal Perspective on Gender Research. Isis Nem de Oliveira Souza (UFRJ, SBFTE Jovem)
The last two decades have seen an important increase in the awareness of gender bias in science. From less funding to lower output, to fewer prizes, women continue to be underrepresented in a number of fields within STEM, with important discrepancies between countries in the global North and South, and their interface regarding race and class. Nevertheless, women persist, however high the price they pay. Gender-oriented meta-research is unquestionably vital for a deeper, more nuanced perception of Academia and the effective proposition of countermeasures, in local, institutional and State levels. Likewise, it helps validate the experiences of young researchers, guide our steps and balance our expectations of ourselves, socializing an issue that can be more often than not placed at an individual level. In this short presentation, I will discuss personal milestones of my experience as a young Latin-American female scientist in the context of recent data on gender in Brazil. I will briefly expose objective data intertwined with affective topics such as tokenism, imposter syndrome and self-sabotage. I hope this candid portrait adds to a wider discussion on gender equity from an intersectional standpoint.

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