


Program at a Glance SPF2022 (Location: Porto Palácio Hotel & SPA, Porto)

WEDNESDAY FEBRUARY 9 TH , 2022		THURSDAY FEBRUARY 10 TH , 2022		FRIDAY FEBRUARY 11 TH , 2022			
Room Douro NORTE	Room Douro SUL	Room Douro NORTE	Room Douro SUL	Room Douro NORTE	Room Douro SUL		
 <p style="margin-top: 20px;">Link Site SPF (Book of Abstracts): http://spfarmacologia.pt/</p>		Registration (08h00)					
		Registration (08h30)					
		Session 5 - CANCER PHARMACOLOGY I	Session 6 - ENDOCRINE PHARMACOLOGY I	Session 13 - GASTROINTESTINAL PHARMACOLOGY		Session 14 - NEUROPHARMACOLOGY II	
		Coffee Break (10h00-10h30)					
		EPHAR Lecture (10h30-11h30) - Francisco Ciruela - PURINERGIC PHOTOPHARMACOLOGY: TOWARDS NEW THERAPEUTIC OPPORTUNITIES		Coffee Break (11h00-11h30)			
		Technical Break (11h30-11h45)					
		Session 7 - OTHERS I	Session 8 - PHARMACOKINETICS AND SLEEP APNEA	Session 15 - TOXICOLOGY III	Session 16 - INFECTION / INFLAMMATION / IMMUNITY II		
		Lunch (13h00-14h00)		Lunch (13h00-14h00)			
		Registration (13h30)					
		Session 1 - INFECTION / INFLAMMATION / IMMUNITY I	Session 2 - TOXICOLOGY I	Session 9 - CLINICAL PHARMACOLOGY	Session 10 - MOLECULAR AND CELLULAR THERAPIES II	Session 17 - OTHERS II	Session 18 - NEUROPHARMACOLOGY III
Coffee Break (15h30-16h00)							
Opening Session (16h00-16h30)		Coffee Break (16h00-16h30)		Coffee Break (15h45-16h15)			
Session 3 - MOLECULAR AND CELLULAR THERAPIES I	Session 4 - CARDIOVASCULAR PHARMACOLOGY	Industry Sponsored Session (16h30-17h30) - HUMIMIC-InHALES: An in vitro platform for systemic inhalation pharmacology and toxicology		Session 19 - ENDOCRINE PHARMACOLOGY II	Session 20 - CANCER PHARMACOLOGY II		
SPF GENERAL ASSEMBLY		Technical Break (17h30-17h45)					
		Session 11 - NEUROPHARMACOLOGY I	Session 12 - TOXICOLOGY II	Closing Session (17h45-18h15)			
		Social Dinner					

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13:30 | Registration

14:00 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Elisabete Silva & Maria Teresa Cruz

SESSION 1 | INFECTION, INFLAMMATION AND IMMUNITY I

14:00 | The impact of age in the glial-immune interplay using the in vivo model of Multiple Sclerosis

Ana Rita Ribeiro, Raquel Pereira, Catarina Barros, Andreia Barateiro, Susan E Howlett & Adelaide Fernandes

14:15 | Inflammatory cytokine response in moderate and severe COVID-19 patients and its relationship to prognosis

Patrícia Pereira-Terra, Marta Reina-Couto, Carolina Silva-Pereira, Luísa Teixeira-Santos, Sandra Martins, Dora Pinho, Manuela Morato, Sónia Fraga, António Sarmento, Margarida Tavares, João Tiago Guimarães, Roberto Roncon-Albuquerque, José Artur Paiva, Teresa Sousa & António Albino-Teixeira

14:30 | Preventing allergic contact dermatitis: *in vivo* proof-of-concept using the local lymph node assay

Gonçalo Brites, João Basso, Margarida Miranda, Isabel Ferreira, Ana Silva, Carla Vitorino, Bruno Neves & Maria Teresa Cruz

14:45 | Endoplasmic reticulum (ER)-mitochondria contacts and inflammation in bipolar disorder

Ana Catarina Pereira, Ana Patrícia Marques, Rosa Resende, Mariana Batista, António Macedo, Cláudia Pais, Joana B. Melo, Nuno Madeira, Maria Teresa Cruz, Cláudia Cavadas & Cláudia Pereira

15:00 | The impact of indoleamine 2,3-dioxygenase-1 on peripheral blood mononuclear cells proliferation under a specific pro-inflammatory milieu

Milene Gonçalves, Alessia Furguele, Emanuela Rasini, Massimiliano Legnaro, Marco Ferrari, Paulo Rodrigues Santos, Francisco Caramelo, Frederico C. Pereira & Marco Cosentino

15:15 | SARS-CoV-2, Dendritic Cells, and Immunity: the connected dots

Ana Isabel Sebastião, Daniela Mateus, Mylène A. Carrascal, Luísa Cortes, Anália do Carmo, Ana Miguel Matos, Martin F. Bachmann, M Goreti F Sales & Maria Teresa Cruz

15:30 | Coffee-Break

16:00 | OPENING SESSION (Room Douro NORTE)

Room Douro SUL

Chairs: Fernando Remião & Glória Queiroz

SESSION 2 | TOXICOLOGY I

14:00 | Acute Methylmercury Exposure Induces Necrotic-like Microglial Cell Death

Élisa Fonseca, João P. Novo, Beatriz Martins, Ramon Raposo, Frederico C. Pereira, Reinaldo Oriá, Carlos Fontes-Ribeiro & João Malva

14:15 | The extended phenotype of a zebrafish model of Parkinsonism: MPP+ disrupts sleep, stress responses, and habituation

Rui F. O. Silva, Brígida R. Pinho, Miguel M. Santos & Jorge M. A. Oliveira

14:30 | A zebrafish model of Wolcott-Rallison Syndrome induced by PERK inhibition presents key disease phenotypes

Liliana M. Almeida, Leonor P. Lima, Rui F. O. Silva, Mariana Martins, Brígida R. Pinho & Jorge M. A. Oliveira

14:45 | Multiparametric *in vitro* toxicity assessment of consumer-relevant nanomaterials in human placental model

Joana Pires, Luciana Moreira, João Paulo Teixeira & Sónia Fraga

15:00 | Evaluation of the short-term and long term cardiotoxicity of doxorubicin: the putative role of inflammation

Mariana Ferreira, Ana Reis-Mendes, José Alberto Duarte, Salomé Gonçalves-Monteiro, Margarida Duarte-Araújo, Fernando Remião, Félix Carvalho, Emília Sousa, Maria Lourdes Bastos & Vera Marisa Costa

15:15 | Molecular effects underlying late cardiotoxicity induced by doxorubicin in CD-1 mice

Sofia Reis Brandão, Ana Reis-Mendes, Margarida Duarte Araújo, Maria João Neuparth, Félix Carvalho, Rita Ferreira & Vera Marisa Costa

Room Douro NORTE

Chairs: José Bernardo Noronha Matos & Joana Miranda

SESSION 3 | MOLECULAR AND CELLULAR THERAPIES I

16:30 | The osteogenic potential of the ADP-sensitive P2Y₁ receptor is partially offset by P2Y_{12/13} receptors antagonism in postmenopausal mesenchymal stem cells

Catarina Bessa-Andrês, Rui Pinto-Cardoso, Maria Adelina Costa, José Marinhos, Rolando Freitas, Cátia Vieira, José Bernardo Noronha-Matos & Paulo Correia-de-Sá

16:45 | HIF-1 α induces chondrogenesis of aged bone marrow-derived mesenchymal stromal cells by reducing extracellular ATP catabolism and adenosine formation

Rui Pinto-Cardoso, Catarina Bessa-Andrês, Maria Adelina Costa, José Marinhos, Rolando Freitas, Rui Lemos, Adélio Vilaça, António Oliveira, Julie Pelletier, Jean Sévigny, José Bernardo Noronha-Matos & Paulo Correia-de-Sá

17:00 | Induced Pluripotent Stem cells derived from Machado-Joseph Disease patients as a promising model to investigate microRNA dysregulation

Maria Inês Santos, Ana Daniela Oliveira, Maria M. Pinto, Magda M. Santana, Diana Santos, Ana Rita Álvaro, Luís Pereira de Almeida & Sónia P. Duarte

17:15 | Reverting dysregulation of microRNA levels as a promising therapeutic strategy for Machado-Joseph Disease

Diana Santos, Maria Inês Santos, Rafael Baganha, Rui Jorge Nobre, Luís Pereira de Almeida & Sónia P. Duarte

17:30 | Exploring the modulation of the MSC secretome towards improved skin regeneration in cutaneous Lupus Erythematosus

Sérgio P. Camões, Samuel Branco & Joana P. Miranda

Room Douro SUL

Chairs: Teresa Sousa & Ana Patrícia Sousa

SESSION 4 | CARDIOVASCULAR PHARMACOLOGY I

16:30 | Arachidonic acid-derived proresolving or proinflammatory mediators and lipoxin receptor expression in human acute heart failure and cardiogenic shock

Marta Reina-Couto, Patrícia Pereira-Terra, Carolina Silva-Pereira, Janete Quelhas-Santos, Sandra Martins, Luísa Teixeira-Santos, Dora Pinho, Paula Serrão, Joana Afonso, Roberto Roncon-Albuquerque, José Artur Paiva, António Albino-Teixeira & Teresa Sousa

16:45 | Antidyslipidemic effect of oleacein in the apoE-KO mice model of atherosclerosis

Beatriz Ormonde, Pedro Vieira, Inês Preguiça, André Alves, Ângela de Jesus, Fátima Paiva-Martins, Sofia Viana & Flávio Reis

17:00 | Salt-inducibile kinase 1 (SIK1): a new player in pulmonary arterial hypertension?

Tatiana António, Patrício Soares-da-Silva, Pedro Gomes & Nuno M. Pires

17:15 | Connexin-43 lateralization and/or downregulation is associated with gap junctional communication failures, dysrhythmias and fibrosis in the heart of children with Tropical Endomyocardial Fibrosis

Paula Teixeira, Fátima Ferreirinha, Ana Olga Mocumbi & Paulo Correia-de-Sá

17:30 | Anticholinergic burden tools: Pharmacological rationale

Marta Lavrador, Ana C. Cabral, Isabel V. Figueiredo, Manuel T. Veríssimo, Fernando Fernandez-Llimos & M. Margarida Castel-Branco

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Room Douro NORTE

Chairs: José Bernardo Noronha Matos & Joana Miranda

SESSION 3 | MOLECULAR AND CELLULAR THERAPIES I

17:45 | The secretome of mesenchymal stem cells ameliorates APAP-induced hepatic injury

Ana S. Serras, Daniela Ribeiro, Sérgio P. Camões, Joana S. Rodrigues & Joana P. Miranda

18:00 | Assessing the potential of mesenchymal stromal cells for alleviation of blood-brain barrier dysfunction in Machado-Joseph Disease

Inês Barros, Daniela Gonzaga, Diana Lobo, Inês Martins, António Silva, Sónia Duarte, Rui Jorge Nobre, Luís Pereira de Almeida & Catarina Oliveira Miranda

18:15 | Validation of the brain-targeting AAV-PHPeB encoding cholesterol hydroxylase CYP46A1 as a therapeutic candidate for Spinocerebellar Ataxia Type-3

Beatriz Serra, Sónia P. Duarte, Nathalie Cartier, Sandro Alves, Luís Pereira de Almeida & Rita Perfeito

18:30 | SPF General Assembly

Room Douro SUL

Chairs: Teresa Sousa & Ana Patrícia Sousa

SESSION 4 | CARDIOVASCULAR PHARMACOLOGY I

17:45 | Impact of previous β -blocker treatment on inflammatory status of acute heart failure and cardiogenic shock patients

Carolina Silva-Pereira, Marta Reina-Couto, Patrícia Pereira-Terra, Janete Quelhas-Santos, Sandra Martins, Paula Serrão, Joana Afonso, José Artur Paiva, António Albino-Teixeira, Sónia Fraga, Roberto Roncon-Albuquerque & Teresa Sousa

18:00 | The digitalis-like negative chronotropic effect of ATP mediated by P2X4 receptors is conserved in the heart of rats with pulmonary arterial hypertension

Cristiana Almeida-Ribeiro, Rafael Neiva, Diogo Silva, Paulo Correia-de-Sá & Ana Patrícia Fontes-Sousa

08:00 | Registration

08:30 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Fátima Martel & Paula A. Oliveira

SESSION 5 | CANCER PHARMACOLOGY I

08:30 | Peppermint leaf extract (*Mentha spicata* L.) effects in HPV16-transgenic mice

Maria Miranda, Tiago M. Jesus, Tiago Ferreira, Maria J. Pires, Germano Lanzarin, Luís Félix, Carlos Venâncio, Rui M. Gil da Costa, Margarida M. S. M. Bastos[3], Rui Medeiros, António Nogueira, Lillian Barros, Isabel C.F.R. Ferreira & Paula A. Oliveira

08:45 | Insulin stimulates proliferation of human breast epithelial DMBA-transformed and non-transformed cell lines by a PI3K-, MTOR- and GLUT1-dependent mechanism

Cláudia Silva, Nelson Andrade, João Tiago Guimarães, Emília Cardoso, Catarina Meireles, Vanessa Pinto, Joana Paiva & Fátima Martel

09:00 | Lysyl Oxidase Like 2 as a therapeutic target for breast cancer: Bioinformatics analysis and biochemical evaluation of 4-thiazolidinone derivatives

Sandra Ferreira, Sofia Ramos, Serhii Holota, Dmytro Khylyuk, Roman Lesyk, Nuno Saraiva & Ana S. Fernandes

09:15 | Xanthohumol inhibits glutamine cellular uptake resulting in a cytotoxic effect in triple-negative breast cancer cells

Francisca P. Carmo, Cláudia Silva & Fátima Martel

09:30 | Study on the antineoplastic and chemotherapeutic potential of pomegranate (*Punica granatum* L.) leaf infusion in K14-HPV16 transgenic mouse model

Manyou Yu, Irene Gouvinhas, Maria J. Pires, Maria J. Neuparth, Rui Gil da Costa, Rui Medeiros, Margarida Bastos, Helena Vala, Luís Félix, Carlos Venâncio, Ana Barros & Paula A. Oliveira

09:45 | Hyperbaric Oxygenotherapy: the limit between Health and Cancer

José Guilherme Nobre, Carla Luís, Rúben Fernandes, Pilar Baylina, Diogo Alpuim Costa, Helder Mota-Filipe, Oscar Camacho, Pedro Barata & Alberto Escalda

10:00 | Coffee-Break

Room Douro SUL

Chairs: Sofia Pereira & Jorge Gonçalves

SESSION 6 | ENDOCRINE PHARMACOLOGY I

08:30 | Effects of soy isoflavones on OPG/RANK/RANKL signaling in menopausal rats

Fernanda R. G. Santos, Carlos A.A. Pessoa, Abigaél Valada, Paula A. Oliveira, Marilene Borges, António Carlos Romão, Ana Paula Azevedo, Socorro Cartágenes, Rui M. Gil da Costa, Haissa O. Brito & Bethânia C. Chein

08:45 | Effects of doxycycline on menopause symptoms in rats: Implications of metalloproteinase physiopathology

Lenise J.C. Mendes, Carlos A.A. Pessoa, Catarina Jota Baptista, Paula A. Oliveira, Marilene Borges, António Carlos Romão Borges, Maria de Lourdes Figueiredo dos Santos, Fernanda Santos, Socorro Cartágenes, Jhessica Gomes, Rui M. Gil da Costa & Haissa O. Brito

09:00 | Modulatory effect of a carotenoid on circadian rhythm in an *in vitro* hypothalamic cell model

Daniela G. Costa, Rukeia El-Athman, Marisa Ferreira-Marques, Ana Rita Fernandes, Marie Babková, Angela Relógio, Cláudia Cavadas & Sara Carmo-Silva

09:15 | GLP-1 activates the carotid body to modulate cardiorespiratory responses

Dinis Pires, Fátima O. Martins & Sílvia V. Conde

09:30 | Carotid body: a new player in the neural sympathetic circuits controlling the adipose tissue

Bernardete F. Melo, Joana F. Sacramento, Julien Lavergne, Daniela Rosendo-Silva, Paulo Matafome, Fátima O. Martins, Elena Olea, Phillipe Blancou & Sílvia V. Conde

THURSDAY | FEBRUARY 10TH, 2022



10:30 | Invited Lecture (Chairs: Rodrigo Cunha & Paulo Correia de Sá)

PURINERGIC PHOTOPHARMACOLOGY: TOWARDS NEW THERAPEUTIC OPPORTUNITIES

SPEAKER: Francisco Ciruela

University of Barcelona – Neuropharmacology and Pain Reserach Group

11:30 | TECHNICAL BREAK

11:45 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Jorge Oliveira & Mónica Rodrigues

Room Douro SUL

Chairs: Ana Rita Álvaro & Paula Fresco

SESSION 7 | OTHERS I

11:45 | Adenosine A_{2A} receptors promote fibrosis of the human subcutaneous tissue indirectly by Panx-1 overexpression mediating ATP release

Carina Herman-de-Sousa, Maria Adelina Costa, Rafaela Pedro Silva, Fátima Ferreirinha, Severino Ribeiro & Paulo Correia-de-Sá

12:00 | The influence of *Ganoderma Lucidum* un male mice fed with a western diet

Catarina Castro-Ribeiro, Rita Silva-Reis, Mariana Mendes-Gonçalves, O. Taofiq, L. Barros, T. Martins, M.J. Pires, M.L. Pinto, I.C.F.R. Ferreira, E. Rosa & Paula A. Oliveira

12:15 | The effect of a tannin enriched topical formulation on mice ears fungal biodiversity

Rebeca Pereira, Ana Rita Silva, Ana Sofia Soares, Isabel Ferreira, Lillian Barros, Ana Cláudia Coelho & Paula Alexandra Oliveira

12:30 | Effects of a coffee roast by-product extract on different tumoral lines: a “sustainable” call for further studies

Nelson Andrade, Juliana A B Peixoto, Cláudia Silva, Susana Machado, Anabela Costa, Maria B. P. P Oliveira, Rita Alves & Fátima Martel

12:45 | Human vs Machine learning: rethinking student assessment to foster metacognition of pharmacological skills

Jorge M. A. Oliveira

SESSION 8 | PHARMACOKINETICS AND SLEEP APNEA

11:45 | Pre-clinical pharmacokinetic evaluation of a skin allergen for the treatment of Alzheimer's disease

Joana Bicker, Diana Batista, Maria Teresa Cruz, Ana Fortuna & Sónia Silva

12:00 | Therapeutic drug monitoring of clozapine on patients with treatment resistant schizophrenia

Patrícia Pereirinha, Ana Fortuna, José Feio, Eulália Costa, Miguel Bajouco & Marília Rocha

12:15 | Drug-drug pharmacokinetic interactions between carbamazepine and the new antiepileptic drugs levetiracetam and perampanel

Rui Silva, Luís Fonseca, Anabela Almeida, Joana Bicker, Andreia Carona, Francisco Sales, Amílcar Falcão & Ana Fortuna

12:30 | Obstructive sleep apnea impact on physiological parameters: Insights from a mouse model of intermittent hypoxia

Laetitia S. Gaspar, Bala S.C. Koritala, Shweta S. Bhadri, Bárbara Santos, Catarina Carvalhas-Almeida, Mafalda Ferreira, Joaquim Moita, Cláudia Cavadas, Ana Rita Álvaro & David F. Smith

12:45 | Impact of obstructive sleep apnea and its treatment on hallmarks aging in blood cells

Bárbara Santos, Laetitia Gaspar, Catarina Carvalhas-Almeida, Mafalda Ferreira, Joaquim Moita, Cláudia Cavadas & Ana Rita Álvaro

13:00 | Lunch



14:00 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Emília Monteiro & Ana Penedones

Room Douro SUL

Chairs: Luís Pereira de Almeida & Sara Xapelli

SESSION 9 | CLINICAL PHARMACOLOGY

SESSION 10 | MOLECULAR AND CELLULAR THERAPIES I

14:00 | The effects of the COVID-19 pandemic on spontaneous reports received by the Coimbra Pharmacovigilance unit: a correlation analysis

Joana Abrantes, Inês Tavares, Diogo Mendes, Ana Penedones, Daniel Figueiredo, Carlos Alves & Francisco Batel Marques

14:00 | *ATXN2* silencing through CRISPR-Cas-based strategies: a therapeutic approach for spinocerebellar ataxia type 2?

Rebekah Koppenol, Ricardo Afonso Reis, Luís Pereira de Almeida, Carlos A. Matos & Clévio Nóbrega

14:15 | Acute adverse reactions to COVID-19 Comirnaty mRNA vaccine: a cross-sectional study in healthcare workers from a tertiary care hospital

Patrícia Paiva, Natália António, Patrícia Dias, Cristina Carvalho, Inês Jordão, Inês Prata, José Feio & Francisco Parente

14:15 | The stress granule protein G3BP1 expression reverts pathological defects in two different polyglutamine diseases

André Conceição, Rebekah Koppenol, Adriana Marcelo, Ricardo Reis, Inês Afonso, Sandra Tomé, José Codesso, Liliana Mendonça, Carlos Matos, Luís Almeida & Clévio Nóbrega

14:30 | Peripheral biomarkers to diagnose obstructive sleep apnea in adults: a systematic review and meta-analysis

Ana Santos-Carvalho, Laetitia S. Gaspar, Bárbara Santos, Catarina Carvalhas-Almeida, Ana Teresa Barros-Viegas, Bárbara Oliveiros, Helena Donato, Clara Santos, Joaquim Moita, Cláudia Cavadas & Ana Rita Álvaro

14:30 | Intranasal delivery of Extracellular Vesicles carrying silencing sequences alleviates Machado-Joseph Disease (MJD)

David Rufino-Ramos, Kevin Leandro, Vítor Carmona, Inês M. Martins, Patrícia R. Albuquerque, Rosário Faro, Rita Perfeito, Rui Jorge Nobre & Luís Pereira de Almeida

14:45 | Drug prescribing analysis: How a Clinical Pharmacologist can provide optimisation of investment in medicines

Diogo José M. Lopes, Fernando Magro & Marta Reina-Couto

14:45 | Extracellular vesicles-mediated delivery of CRISPR/Cas9 systems for therapeutic genome editing

Kevin Leandro, David Rufino-Ramos, Sara Lopes, Inês M. Martins, Diana Lobo, Rosário Faro, Pedro Perdigão & Luís Pereira de Almeida

15:00 | Statin overprice before generic availability in Portugal (2000-2018)

Fernando Fernandez-Llimos, Catarina Abrantes, Margarida Castel-Branco, Jorge Gonçalves, Cláudia Furtado & Isabel V. Figueiredo

15:00 | Correction of *ATXN3*-CAG expansion in MJD patient-derived iPSC by CRISPR/Cas9 homology directed repair

Pedro Perdigão, Carlos Matos, Sara Lopes, Rita Fernandes, Miguel Lopes, Rosário Faro, Magda Santana, Rui Nobre & Luís Pereira de Almeida

15:15 | The safety of JAK inhibitors in atopic dermatitis: a systematic review and network meta-analysis

Carlos Alves, Ana Penedones, Diogo Mendes & Francisco Batel Marques

15:15 | A comparative study of the effects of cannabidiol in combination with aromatase inhibitors in sensitive and resistant breast cancer cells

Cristina Ferreira Almeida, Natércia Teixeira, Georgina Correia-da-Silva & Cristina Amaral

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Room Douro NORTE

Chairs: Emília Monteiro & Ana Penedones

SESSION 9 | CLINICAL PHARMACOLOGY

15:30 | The medication patterns of Machado-Joseph Disease patients enrolled in the ESMI cohort: a retrospective study

Patrick Silva, Marina A. Costa, Joana Ribeiro, Inês Cunha, Cristina Januário, ESMI consortium, Luís Pereira de Almeida & Magda M. Santana

15:45 | Pharmacometabolomics of sulfonation: Urinary metabolite profile can predict sulfonation capacity in man

Natália Marto, Judit Morello, Alexandra MM Antunes, Emília C Monteiro & Sofia A Pereira

16:00 | Coffee-Break

16:30 | Industry Sponsored Session

HUMIMIC-InHALES: An *in vitro* platform for systemic inhalation pharmacology and toxicology

SPEAKER: Sandro Steiner

PMI Science, Quai Jeanrenaud 5, CH-2000 Neuchâtel

17:30 | TECHNICAL BREAK

17:45 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Frederico Pereira & Maria José Diógenes

SESSION 11 | NEUROPHARMACOLOGY I

17:45 | Insulin administration triggers hippocampus Bdnf expression which may result in contextual fear memory enhancement in adrenaline-deficient mice

Rafaela Seixas, Ana Oliveira, Francisca Pereira, Raquel Martinho, Paula Serrão & Mónica Moreira-Rodrigues

Room Douro SUL

Chairs: Félix Carvalho & Paula Guedes de Pinho

SESSION 12 | TOXICOLOGY II

17:45 | Assessing the impact of sunitinib and pazopanib on the metabolism of tumorigenic and non-tumorigenic renal cells by 1H-NMR metabolomics

Filipa Amaro, Carolina Piseiro, Maria João Valente, Vera Miranda-Gonçalves, Cármen Jerónimo, Rui Henrique, Maria de Lourdes Bastos, Paula Guedes de Pinho, Márcia Carvalho & Joana Pinto

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Room Douro NORTE

Chairs: Frederico Pereira & Maria José Diógenes

SESSION 11 | NEUROPHARMACOLOGY I

18:00 | BDNF receptor cleavage in Alzheimer's disease: from mice to humans

Nuno Alemã-Serrano, Rita Cardoso-Amaral, Carolina de Almeida-Borlido, Tiago Costa-Coelho, Catarina Beatriz Ferreira, Catarina Miranda-Lourenço, Leonor Ribeiro-Rodrigues, Ana. M. Sebastião, Alexandre de Mendonça & Maria José Diógenes

18:15 | Caffeine regulates GABA transport via endocannabinoid receptors activation in the avian retina

Vladimir P. P. Borges-Martins, Danielle D. P. Ferreira, Arthur C. Souto, Jéssika G. Neto, Luzia S. Sampaio, Danniel Pereira-Figueiredo, Karin C. Calaza, Karen J. Oliveira, Alex C. Manhaes, Ricardo A. M. Reis, Paula Agostinho, Rodrigo A. Cunha, Regina C. C. Kubrusly

18:30 | Cannabidiol (CBD) facilitates GABA outflow from resting hippocampal nerve terminals via GAT-1 transport reversal in immature and young adult rats

Laura Marinho, Tatiana Ventura, M. Graça Lobo & Paulo Correia-de-Sá

18:45 | Effects of treadmill exercise on emotional features in a social defeat stress mouse model

Julie Reis, Edna Soares, Carlos A. Fontes-Ribeiro & Frederico C. Pereira

19:00 | Involvement of adenosine A_{2A} receptors in glymphatic system activity in stress-like conditions

Liliana Dias, Paula Canas, Rodrigo A. Cunha & Paula Agostinho

19:15 | Selective inhibition of synaptic transmission by MRS5474 in epileptic rats but not in control ones.

Anwasha Ghosh, Leonor Ribeiro-Rodrigues, Nádia Rei, Dilip K. Tosh, Tatiana P. Morais, Sandra H. Vaz, Cláudia A. Valente, Kenneth A. Jacobson, Joaquim A. Ribeiro & Ana M. Sebastião

19:30 | Skin allergens: Molecules with possible application in Alzheimer's disease

Jéssica Macedo, Teresa Cruz, Cláudia Pereira, Patrícia Moreira, Rosa Resende, Armanda E. Santos, Ana Silva & Sónia Silva

20:00 | Social Dinner

Room Douro SUL

Chairs: Félix Carvalho & Paula Guedes de Pinho

SESSION 12 | TOXICOLOGY II

18:00 | An insight into the potential toxicity and human health-related adverse consequences of the preservatives in cosmetic products

Francisca Santos & André RTS Araújo

18:15 | Supplementation of an anthocyanin-rich elderberry (*Sambucus nigra* L.) extract in FVB/n mice: The rise of natural colorants?

Tiago Azevedo, Tiago Ferreira, João Ferreira, Luís Félix, Maria João Neuparth, Maria João Pires, Lillian Barros, Maria de Lurdes Pinto, Isabel Gaivão, Carlos Venâncio, Isabel C.R.F. Ferreira & Paula A. Oliveira

18:30 | Design and fabrication of a microfluidic device for culturing stem cell-derived HLCs for *in vitro* toxicology

Joana S. Rodrigues, Sofia Relvas, Pedro G. M. Condélpes, V. Chu, João P. Conde & Joana P. Miranda

18:45 | Effects of *N*-methyl-*N*-nitrosourea administration: comparing data between Wistar and Sprague-Dawley female rats

Jéssica Silva, Abigaël Valada, Tiago Azevedo, Lara Anjos, Ana I. Faustino-Rocha, Paula A. Oliveira & José A. Duarte

19:00 | Effects of oral supplementation with pulegone and eugenol in FVB/n mice

Tiago Ferreira, Carla Silva, Adelina Gama, Isabel Gaivão, Francisco Peixoto, Rui M. Gil da Costa, Margarida M.S.M. Bastos & Paula A. Oliveira

19:15 | The influence of curcumin-encapsulated glucan nanoparticles on hepatic cells and immune cells: oxidative stress and immunomodulatory properties

Mariana Colaço, Tiago Roquito, João Panão Costa, Sandra Jesus, Mylène Carrascal, Maria T. Cruz & Olga Borges

19:30 | Immunotoxicological properties of yeast-derived glucan particles

João Panão Costa, Mariana Colaço, Sandra Jesus, Mylène A. Carrascal, Maria T. Cruz & Olga Borges

08:30 | Registration

09:00 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Manuela Morato & Cátia Vieira

SESSION 13 | GASTROINTESTINAL PHARMACOLOGY

09:00 | Fecal samples from human milk-fed preterm infants increase alkaline phosphatase activity in Caco-2 cells

Gilberto Maia Santos, Shámila Ismael, Juliana Morais, Sara Brito, Manuela Cardoso, Israel Macedo, Teresa Tomé, Conceição Calhau, João Araújo, Ana Faria & Cláudia Marques

09:15 | ACE2 in experimental colitis

Mariana Ferreira-Duarte, Lilian Caroline Gonçalves Oliveira, Dulce Elena Casarini, Teresa Sousa, António Albino-Teixeira, Margarida Duarte-Araújo & Manuela Morato

09:30 | Ileum reactivity to angiotensin II in a rat diabetic model

Marisa Esteves-Monteiro, Mariana Ferreira-Duarte, Daniela Menezes-Pinto, Patrícia Dias-Pereira, Manuela Morato & Margarida Duarte-Araújo

09:45 | Effect of toll-like receptors on Na⁺, K⁺-ATPase activity and expression in intestinal epithelial cells

Dina Cosme & Fernando Magro

10:00 | Upcycling agro-wastes into high-value biomasses with prebiotic and gut immunomodulatory potential: the case of senescent blueberry leaves

Inês Preguiça, Carolina Ferreira, Pedro Vieira, Sara Nunes, André Alves, Solange Semião, Artur Figueirinha, Lúcia Salgueiro, Jani Almeida, Vera Alves, Tânia Ribeiro, Manuela Pintado, Flávio Reis & Sofia Viana

10:15 | Purified isocaloric low-fat diet elicits gut dysbiosis and renal podocyte effacement in Wistar rats

Pedro Vieira, Inês Preguiça, André Alves, Carolina Ferreira, Sara Nunes, Pedro Gomes, Tânia Ribeiro, Manuela Pintado, Flávio Reis & Sofia Viana

Room Douro SUL

Chairs: Rodrigo Cunha & Diana Cunha Reis

SESSION 14 | NEUROPHARMACOLOGY II

09:00 | Postweaning development influences endogenous VPAC₁ modulation of LTP induced by theta-burst stimulation

Ana Caulino-Rocha, Marta Gil, Nádia C. Rodrigues, Joaquim Alexandre Ribeiro & Diana Cunha-Reis

09:15 | Effects of NADPH oxidase isoform-2 inhibition on behavioral responses and neuroinflammatory markers in a mouse model of neuropathic pain

Lúisa Teixeira-Santos, Eduardo Veríssimo, Sandra Martins, João Tiago Guimarães, Teresa Sousa, António Albino-Teixeira & Dora Pinho

09:30 | The $\alpha 7$ nicotinic receptor inhibitory drive operated by perisynaptic Schwann cells to control neuromuscular transmission involves NOS, CaMKII and ROCK

Carlos Sousa-Soares, José Bernardo Noronha-Matos & Paulo Correia-de-Sá

09:45 | Association between adenosine A_{2A} receptors and connexin43 regulates hemichannels activity in astrocytes exposed to amyloid- β peptides

Daniela Madeira, Liliana Dias, Rodrigo A. Cunha, Paula M. Canas & Paula Agostinho

10:00 | Mitoxantrone causes oxidative stress, apoptotic and autophagic neuronal death in adult CD-1 mice

Ana Dias-Carvalho, Mariana Ferreira Ana Reis-Mendes, Rita Ferreira, Eduarda Fernandes, Susana Isabel Sá, João Paulo Capela, Félix Carvalho & Vera Marisa Costa

10:15 | TrkB-FL proteolytic cleavage drives the release of a C-terminal fragment in multiple extracellular vesicle populations

Tiago Costa-Coelho, João Fonseca-Gomes, Gonçalo Garcia, Mafalda Ferreira-Manso, Juzoh Umemori, Eero Castrén, Ana M. Sebastião, Dora Brites & Maria José Diógenes

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Room Douro NORTE

Chairs: Manuela Morato & Cátia Vieira

SESSION 13 | GASTROINTESTINAL PHARMACOLOGY

10:30 | Topiramate can be a new pharmacological approach for inflammatory bowel disease?

Inês Silva, Rui Pinto & Vanessa Mateus

10:45 | Preservation of the vagal cholinergic tone in post-inflammatory ileitis hangs on a P2X4 to P2X7 purinoceptors activation shift

Raquel Castro, Rafael Moreira, Cátia Vieira, Fátima Ferreirinha, Moisés Tolentino Bento da Silva & Paulo Correia-de-Sá

11:00 | Coffee-Break

11:30 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: João Paulo Teixeira & Ana Sofia Fernandes

SESSION 15 | TOXICOLOGY III

11:30 | Assessment of endocrine disruptors molecules in the environment – screening using *Eisena fetida*

Rafael Araújo, Lara Anjos, Manuela Matos, Francisco Peixoto, Isabel Gaivão, João Ricardo Sousa, Marta Roboredo, Ana M. Coimbra, Paula A. Oliveira & Maria de Lurdes Pinto

11:45 | Impact of “Tinta Barroca” grape stem exposure on *Eisena fetida*

Lara Anjos, Rafael Araújo, Manuela Matos, Maria de Lurdes Pinto, Irene Gouvinhas, Ana Barros, Francisco Peixoto, Isabel Gaivão, João Ricardo Sousa, Marta Roboredo, Ana M. Coimbra & Paula A. Oliveira

12:00 | Cookware and food packaging materials: an analysis of Portuguese consumers practices and perception of safety

Cíntia Ferreira-Pêgo, Joana Moura, Jennyfer Castillo, João G. Costa & Ana S. Fernandes

(Continued)

Room Douro SUL

Chairs: Rodrigo Cunha & Diana Cunha Reis

SESSION 14 | NEUROPHARMACOLOGY II

10:30 | Virtual docking design of small compounds targeting TrkB-FL cleavage site

Sara Inteiro-Oliveira, Tiago Costa-Coelho, Mafalda Ferreira-Manso, Ana M. Sebastião, Francisco J. Enguita & Maria José Diógenes

10:45 | Upregulation of autophagy as a therapeutic strategy for SCA2 disease

Adriana Marcelo, Inês T. Afonso, Ricardo Afonso-Reis, David V.C. Brito, Rafael G. Costa, Ana Rosa, João Alves-Cruzeiro, Benedita Ferreira, Carina Henriques, Rui J. Nobre, Carlos A. Matos, Luís Pereira de Almeida & Clévio Nóbrega

Room Douro SUL

Chairs: Alexandrina Mendes & Dora Pinho

SESSION 16 | INFECTION, INFLAMMATION AND IMMUNITY II

11:30 | JNK1 inhibition contributes to the anti-inflammatory activity of (R)-(-)-carvone

Cátia Sousa, Bruno Miguel Neves, Alcino Jorge Leitão & Alexandrina Ferreira Mendes

11:45 | ACE2/ACE balance in COVID-19 patients with different disease severity

Mariana Ferreira-Duarte, Lilian Caroline Gonçalves Oliveira, Dulce Elena Casarini, Marta Reina-Couto, Carolina Silva-Pereira, Patrícia Pereira-Terra, Luísa Teixeira-Santos, Dora Pinho, Mariana Madeira, António Sarmento, Margarida Tavares, Roberto Roncon-Albuquerque, José Artur Paiva, Teresa Sousa, Manuela Morato & António Albino-Teixeira

12:00 | Ovulation and ovarian senescence as key drivers of ovarian aging

Adriana Costa Guerreiro, Luís Montenegro, Anabela Pinto, Liliana Matos, Adriana Raquel Rodrigues, Ana Martins-Bessa, Henrique Almeida & Elisabete Silva



(Continued)

Room Douro NORTE

Chairs: João Paulo Teixeira & Ana Sofia Fernandes

SESSION 15 | TOXICOLOGY III

12:15 | The effects of dimethylhydrazine intraperitoneal administration: an integrative approach to understand its effects

Rita Silva-Reis, Ana I. Faustino-Rocha, Catarina Castro Ribeiro, Mariana Gonçalves, Tiago Ferreira, Maria João Pires, Carlos E. Iglesias-Aguirre, Adrián Cortés-Martín, María V. Selma, Juan Carlos Espín; Elisabete Nascimento-Gonçalves, Alexandra Moreira-Pais, Maria J. Neuparth, Francisco Peixoto, Eduardo Rosa, Adelina Gama, Rita Ferreira & Paula A. Oliveira

12:30 | Characterization of disease-associated microglia upon the prenatal exposure to the toxin methylazoxymethanol acetate

Ana C. Rodrigues-Neves, Rita Gaspar, Patrícia Patrício, Susana Lima, Tiago Rosa, Joana Macedo, Bruna Araújo, Filipa I. Baptista, António F. Ambrósio, Luísa Pinto, João Bessa & Catarina A. Gomes

12:45 | Development and *in vitro* toxicology assessment of self-disinfecting paints with natural substrates

Micaela Machado Querido, João Paulo Teixeira & Cristiana Costa Pereira

13:00 | Lunch

14:00 | ORAL COMMUNICATIONS

Room Douro NORTE

Chairs: Maria Augusta Vieira Coelho & Sofia Viana

SESSION 17 | OTHERS II

14:00 | Nose-to-brain delivery of perampanel using a non-toxic self-microemulsion drug delivery system

Sara Meirinho, Maria Gomes, Márcio Rodrigues, Catarina L. Ferreira, Rui Caetano Oliveira, Adriana O. Santos, Ana Fortuna, Amílcar Falcão & Gilberto Alves

(Continued)

Room Douro SUL

Chairs: Alexandrina Mendes & Dora Pinho

SESSION 16 | INFECTION, INFLAMMATION AND IMMUNITY II

12:15 | Spontaneous reports of adverse reactions to COVID-19 vaccines: preliminary results from a cross-sectional study

Renato Ferreira-da-Silva, Inês Ribeiro-Vaz, Ana-Marta Silva, Cristina Costa Santos, Manuela Morato & Jorge Junqueira Polónia

12:30 | Non-pathogenic viral vectors pseudotyped with the SARS-CoV-2 S protein to study drug repurposing and immunization strategies

Jisette González Núñez, Dina Pereira, Rui Nobre, Carina Henriques, Rosário Faro, Inês Martins, Ana Cristina Ferreira, David Rufino-Ramos & Luís Pereira de Almeida

12:45 | COVID-19 pandemic and the use of antibiotics in the community: an interrupted time-series analysis

Mariana Domingues, Carla Torre, José Pedro Guerreiro, Pedro Barata, João Rocha, Bruno Sepodes & António Teixeira Rodrigues

Room Douro SUL

Chairs: Ana Sebastião & Sandra Vaz

SESSION 18 | NEUROPHARMACOLOGY III

14:00 | Modulation of carotid body activity prevents cognitive dysfunction and decreases alpha-synuclein and APP expression in Prefrontal Cortex and Hippocampus

Adriana M. Capucho, Ana Chegão, Bernardete F. Melo, Fátima O. Martins, Natália Madeira, Joana F. Sacramento, Rosalina Fonseca, Hugo Vicente Miranda & Sílvia V. Conde

(Continued)

Room Douro NORTE

Chairs: Maria Augusta Vieira Coelho & Sofia Viana

Room Douro SUL

Chairs: Ana Sebastião & Sandra Vaz

SESSION 17 | OTHERS II

14:15 | Unveiling the effect of methylphenidate on the retina of control and Attention-Deficit/Hyperactivity Disorder rat models

Eliane Swely Sanches, Raquel Boia, Ricardo Leitão, Maria Madeira, Carlos A Fontes-Ribeiro, António Francisco Ambrósio, Rosa Fernandes & Ana Paula Silva

14:30 | A blueberry-based prebiotic strategy improves intestinal Th17/Treg imbalance and central impairments in experimental Multiple Sclerosis

Carolina Ferreira, Inês Preguiça, André Alves, Sara Nunes, Pedro Vieira, Ângela de Jesus, Jani Almeida, Vera Alves, Flávio Reis & Sofia Viana

14:45 | Effects of CBD and THC on dopamine levels – a study in differentiated SH-SY5Y cells

Cláudia Carvalho, Maria Paula Serrão & Maria Augusta Vieira Coelho

15:00 | SIRT1 as a putative therapeutic target to manage cognitive deficits in APP/PS1 mice

Joana Silva, Cátia R. Lopes, Paula M. Canas, Carlos M. Palmeira & Rodrigo A. Cunha

15:15 | Cerebellar morphometric and spectroscopic biomarkers for Machado-Joseph Disease

Catarina Oliveira Miranda, Rui Jorge Nobre, Vitor Hugo Paiva, João Valente Duarte, João Castelhana, Lorena Itatí Petrella, José Sereno, Magda Santana, Sónia Afonso, Cristina Januário, Miguel Castelo-Branco & Luís Pereira de Almeida

SESSION 18 | NEUROPHARMACOLOGY III

14:15 | Pharmacological Hsp70 activation reduced mutant huntingtin levels and aggregation of its N-terminal fragment

Brígida R. Pinho, Liliana Almeida, Michael Duchen & Jorge M. A. Oliveira

14:30 | Astrocytes as sculptors of synaptic plasticity in Alzheimer's Disease

Daniela S. Abreu, Joana I. Gomes, Mariana N. Sottomayor, Filipa F. Ribeiro, Hugo Vicente-Miranda, Marta C. Marques, Teresa Summavielle, Renato Socodato, João B. Relvas, Ana M. Sebastião, Maria José Diógenes, Nicole Déglon & Sandra H. Vaz

14:45 | Astrocytes are active players in Alzheimer's Disease through the modulation of synaptic plasticity

Cátia R. Lopes, Daniela Madeira, Liliana Dias, Rafael Dias, Inês Amaral, Paula M. Canas¹, Rodrigo A. Cunha & Paula Agostinho

15:00 | Astrocytic A_{2A} receptors modulate hippocampal-dependent memory and synaptic plasticity

Daniela Madeira, Cátia R. Lopes, Joana Domingues, Ana P. Simões, Paula M Canas, Rodrigo A. Cunha & Paula Agostinho

15:15 | PLX-3397 efficiently eliminates microglia from primary astrocytic cultures

Mariana Van Zeller, Ana M. Sebastião & Cláudia A. Valente

15:30 | A novel peptide, TAT-TrkB, able to restore TrkB-FL levels and ameliorate memory impairments observed in 5xFAD mice

Mafalda Ferreira-Manso, João Fonseca-Gomes, Rita F. Belo, Catarina Miranda-Lourenço, Tiago Costa-Coelho, Ana M. Sebastião, Adelaide Fernandes & Maria José Diógenes

15:45 | Coffee-Break

Room Douro NORTE

Chairs: Cláudia Cavadas & Sílvia Conde

Room Douro SUL

Chairs: Clara Quintas & Lucília Saraiva

SESSION 19 | ENDOCRINE PHARMACOLOGY II

16:15 | Insulin resistance in obstructive sleep apnea: is there a role for dysfunctional mitochondrial bioenergetics in the liver?

Joana L. Fernandes, Fátima O. Martins, Bernardete F. Melo, Elena Olea, Jesus Prieto-Lloret, Ana Obeso, Asuncion Rocher, Joana F. Sacramento & Sílvia V. Conde

16:30 | Boosting hypothalamic neurogenesis: toward a novel caloric restriction mimetic

Marisa Ferreira-Marques, Ana Catarina Vinhas, André Carvalho, Clévio Nóbrega, Cláudia Cavadas & Célia A. Azeiteiro

16:45 | Implications of diet composition for the establishment of a rat model of prediabetes

Gonçalo Ferreira, Pedro Vieira André Alves, Sara Nunes, Inês Preguiça, Beatriz Ormonde, Solange Semião, Tânia Martins-Marques, Cláudia Pereira, Henrique Girão, Sofia Viana, Pedro Gomes & Flávio Reis

17:00 | Urolithin B rescues pancreatic β -cells from the cytotoxic effects of IAPP aggregation

Sofia Ferreira, Ana F. Raimundo, José Brito, Mafalda L. da Silva, João Costa, Cláudia N. dos Santos & Regina Menezes

17:15 | Antidiabetic potential of cherry stem infusion through inhibitory effects on intestinal sugar uptake

Juliana A. Barreto Peixoto, Nelson Andrade, Anabela S. G. Costa, M. Beatriz P. P. Oliveira, Rita C. Alves & Fátima Martel

17:30 | Innovative therapeutical strategy to slow down aging in Hutchinson-Gilford progeria syndrome

Ana Carolina Real, Marisa Ferreira-Marques, Cláudia Cavadas & Célia Azeiteiro

SESSION 20 | CANCER PHARMACOLOGY II

16:15 | Exploring the effect of exercise training in preventing prostate cancer using a chemically and hormonally induced rat model

Elisabete Nascimento-Gonçalves, Fernanda Seixas, Ana Faustino-Rocha, Maria João Pires, Maria João Neuparth, Daniel Moreira-Gonçalves, José Alberto Duarte, Bruno Colaço, Rita Ferreira & Paula A. Oliveira

16:30 | Impact of the SOD mimic MnTnHex-2-PyP5+ and its combination with cisplatin in non-small cells lung cancer cells in vitro

Rita Soares, Rita Manguinhas, João G. Costa, Ana S. Fernandes, Nuno Saraiva, Nuno Gil, Rafael Rosell, Sérgio P. Camões, Inês Batinic-Haberle, Matilde Castro, Joana P. Miranda, Paula Guedes de Pinho & Nuno G. Oliveira

16:45 | Implications of aquaporin-3 and aquaporin-5 in cell migration and tumor signalling pathways in pancreatic cancer

Inês V. da Silva, Patrícia M. Silva, Nuno C. Santos & Graça Soveral

17:00 | Influence of adrenergic agonists on the induction of cancer hallmarks in non-tumorigenic MCF-10A cells

Dany Silva, Clara Quintas, Jorge Gonçalves & Paula Fresco

17:15 | Mutant p53 reactivator prevents ultraviolet B radiation-induced skin carcinogenesis

Joana B. Loureiro, Matilde Barros, Tiago Ferreira, Elizabeth A. Lopes, Adelina Quaresma, Laura Marabini, Paula A. Oliveira, Maria M. M. Santos & Lucília Saraiva

17:30 | Interference of *Quercus suber* infusion ingestion in murinometric variables

Beatriz Medeiros-Fonseca, Rui Medeiros, Rui M. Gil da Costa, Margarida Bastos, Cristiana Breda, Irene Gouvinhas, Ana Barros & Paula A. Oliveira

17:45 | CLOSING SESSION (Room Douro NORTE)