



# SPF 2021

FFUL 17-19 FEVEREIRO

SCIENTIFIC PROGRAMME

14h00- 14h30	<b>OPENING CEREMONY</b> <span style="float: right;">sala 1</span> SPF Board and Organizing Committee	
14h30- 15h30	<div style="text-align: right;">sala 1</div> <b>CARDIOVASCULAR &amp; RENAL PHARMACOLOGY</b> <i>Chairs:</i> Teresa Sousa, Sofia Azeredo Pereira  <b>1. SYMPATHETIC DOWN-REGULATION WITH ZAMICASTAT DECREASES CARDIAC ARRHYTHMIAS AND IMPROVES SURVIVAL IN A MODEL OF PULMONARY ARTERIAL HYPERTENSION</b> <b>Nuno Pires</b> , Bruno Igreja, Luis Magalhães, Maria-João Bonifácio, Eric Chevalier, Patrício Soares-da-Silva  <b>2. IMPACT OF CHRONIC INTERMITTENT HYPOXIA ON TRYPTOPHAN METABOLISM</b> Nuno R. Coelho, Anne Claire-Boschat, <b>Judit Morello</b> , M. João Correia, António Pimpão, Céline Tomkiewicz, Xavier Coumoul, Robert Barouki, Sylvia Sanquer, Emília C. Monteiro, Sofia A. Pereira  <b>3. BLUEBERRY EFFECTS ON DIET-INDUCED PREDIABETIC NEPHROPATHY – AN <i>IN VIVO</i> APPROACH</b> <b>Pedro Vieira</b> , Sara Nunes, André Alves, Inês Preguiça, Artur Figueirinha, Lúgia Salgueiro, Pedro Gomes, Sofia Viana, Flávio Reis  <b>4. PHARMACOLOGICAL PATHWAYS OF THE AHR ANTAGONIST CH-223191 IN KIDNEY IN A MODEL OF ARTERIAL HYPERTENSION ASSOCIATED TO SLEEP APNEA</b> <b>António Pimpão</b> , Nuno R. Coelho, Pedro M. Costa, M. João Correia, Judit Morello, Emília C. Monteiro, Sofia A. Pereira  <b>5. RESOLUTION OF INFLAMMATION IN HUMAN ACUTE HEART FAILURE AND CARDIOGENIC SHOCK: ROLE OF RESOLVIN D1 AND E1</b> <b>Marta Reina-Couto</b> , Carolina Silva-Pereira, Patrícia Pereira-Terra, Janete Quelhas-Santos, João Bessa, Paula Serrão, Joana Afonso, Sandra Martins, Dora Pinho, Manuela Morato, Roberto Roncon-Albuquerque, José Artur Paiva, António Albino-Teixeira, Teresa Sousa	<div style="text-align: right;">sala 2</div> <b>NEUROPHARMACOLOGY I</b> <i>Chairs:</i> Ana Sebastião, Paula Agostinho  <b>1. ADENOSINE A<sub>2A</sub> RECEPTORS MODULATE HEMICHANNELS ACTIVITY IN ASTROCYTES TREATED WITH AMYLOID-<math>\beta</math> PEPTIDES</b> <b>Daniela Madeira</b> , Liliana Dias, Rodrigo A. Cunha, Paula M. Canas, Paula Agostinho  <b>2. FUNCTIONAL INTERACTION BETWEEN ATP-P<sub>2</sub>X<sub>7</sub> AND ADENOSINE A<sub>2A</sub> RECEPTORS IN THE CONTROL OF MICROGLIAL Ca<sup>2+</sup> LEVELS</b> <b>Liliana Dias</b> , Rafael Dias, Daniela Madeira, Ângelo R. Tomé, Rodrigo A. Cunha, Paula Agostinho  <b>3. DUAL EFFECT OF A1R AND A2AR UPON CB1R SIGNALLING IN CORTICAL ASTROCYTES</b> <b>Joana Gonçalves-Ribeiro</b> , Oksana Savchak, Tatiana P. Morais, Rafael Faria Lopes, Carlos Meneses, Rafael Santisteban, Alejandro Lillo, Vincenzo Crunelli, Gemma Navarro-Brugal, Rafael Franco, Ana M. Sebastião, Sandra H. Vaz  <b>4. ON THE SEARCH OF THE MECHANISM OF ACTION OF MRS5474, A PUTATIVE ANTIEPILEPTIC DRUG WITH AFFINITY FOR ADENOSINE A<sub>1</sub> RECEPTORS</b> <b>Anwasha Ghosh</b> , Leonor Ribeiro-Rodrigues, Nádia Rei, Dilip K. Tosh, Tatiana P. Morais, Sandra H. Vaz, Cláudia A. Valente, Vicenzo Crunelli, Keneth A. Jacobson, Joaquim A. Ribeiro, Ana M. Sebastião  <b>5. <math>\beta</math>-ADRENOCEPTOR ANTAGONIST SOTALOL AFFECTS RECONSOLIDATION, AND DECREASES TRAUMATIC MEMORIES AND ANXIETY-LIKE BEHAVIOUR IN A POST-TRAUMATIC STRESS DISORDER MICE MODEL</b> <b>Raquel Martinho</b> , Márcia Azevedo, Rafaela Seixas, Ana Oliveira, Mónica Moreira-Rodrigues
15h30- 16h15	<div style="text-align: right;">sala 1</div> <b>KEYNOTE LECTURE: Bob Van der Water</b> (Leiden University, NL) <b>Cellular stress responses and prediction of adverse drug responses</b> <i>Chairs:</i> Joana Miranda, Félix Carvalho	

16h15-  
17h30

sala 1

## CLINICAL PHARMACOLOGY I

*Chairs:* Teresa Herdeiro, Carlos Alves, Paula Fresco

### 1. HIGHLIGHTS OF THE ANXIOLYTICS, SEDATIVES, HYPNOTICS, AND ANTIDEPRESSANTS PRESCRIPTION TENDENCIES IN PORTUGAL DURING THE COVID-19 PANDEMIC: A NATIONWIDE, QUASI-EXPERIMENTAL STUDY

**Marta Estrela**, Tânia Magalhães Silva, Eva Rebelo Gomes, Adolfo Figueiras, Fátima Roque, Maria Teresa Herdeiro

### 2. THE PORTUGUESE SURVEY ON ANTICOAGULATED PATIENTS REGISTER (START-PORTUGAL-REGISTER): PRELIMINARY RESULTS

**Joana Abrantes**, Diogo Mendes, Francisco Batel Marques

### 3. DIFFERENCES BETWEEN DEFINED DAILY DOSES AND PRESCRIBED DAILY DOSES: THE CASE OF STATINS IN PORTUGAL

**Fernando Fernandez-Llimos**, Catarina Abrantes, Margarida Castel-Branco, Claudia Furtado, Isabel V. Figueiredo

### 4. EFFECTS OF ANTI-GLAUCOMATOUS DROP THERAPY ON CONJUNCTIVA THICKNESS

**Manuel N. Gaspar**, Luis M Janela, João M. Frade, Carlos A. Fontes Ribeiro

### 5. HIGHLIGHTS OF THE ANTIBIOTIC PRESCRIPTION TENDENCIES IN PORTUGAL DURING THE COVID-19 PANDEMIC: A NATIONWIDE, QUASI-EXPERIMENTAL STUDY

**Tânia Magalhães Silva**, Marta Estrela, Eva Rebelo Gomes, Adolfo Figueiras, Fátima Roque, Maria Teresa Herdeiro

### 6. IMPACT OF OFF-LABEL DOACS DOSE IN PATIENTS WITH CARDIAC IMPLANTABLE ELECTRONIC DEVICES AND NON-VALVULAR ATRIAL FIBRILLATION ON SAFETY AND EFFICACY OUTCOMES: A REAL-WORLD STUDY

**Joana Santos**, Ana Fortuna, Lino Gonçalves, Marília João Rocha, Natália António

sala 2

## CANCER PHARMACOLOGY I

*Chairs:* Nuno Oliveira, Ana Fernandes

### 1. ANTICANCER PROPERTIES OF THE ISOTHIOCYANATE ERUCIN IN RENAL CANCER CELLS

**Íris Guerreiro**, Bojana Vidovic, João G. Costa, Nuno G. Oliveira, Nuno Saraiva, Ana S. Fernandes

### 2. AQUAPORIN INHIBITION WITH GOLD COMPOUNDS IMPAIRS MELANOMA CELL MIGRATION

**Catarina Pimpão**, Inês V. da Silva, Andreia F. Mósca, Angela Casini, Graça Soveral

### 3. SLMP53-2: PROMISING ANTI-TUMOR ACTIVITY IN MELANOMA BY TARGETING P53

**Joana B. Loureiro**, Liliana Raimundo, Juliana Calheiros, Valentina Barcherini, Nuno R. Lima, Célia Gomes, Maria Inês Almeida, Marco G. Alves, José Luís Costa, Maria M. M. Santos, Lucília Saraiva

### 4. THE SECRETOME OF MESENCHYMAL STEM CELLS MODULATES DOXORUBICIN-INDUCED CYTOTOXICITY

Ana S. Serras, Bernardo Antunes, **Sérgio P. Camões**, Flávio Dionísio, Vera M. Costa, Volkan Yazar, Fernando Remião, Matilde Castro, Nuno G. Oliveira, Joana P. Miranda

### 5. NOVEL MECHANISMS IN ANGIOGENESIS: OXIDATIVE STRESS AS A PROMOTER OF MONOCYTE-TO-ENDOTHELIAL CELL DIFFERENTIATION AND ENDOTHELIAL CELL ACTIVATION

**Filipa Lopes-Coelho**, Filipa Martins, Fernanda Silva, Ana Hipólito, Sofia Gouveia-Fernandes, Germana Domingues, Cindy Mendes, Carmo Martins, Catarina O. Sequeira, Nuno Lopes, Rita F. Pires, Catarina Brito, António M. Almeida, Vasco D. B. Bonifácio, Sofia A. Pereira, Jacinta Serpa

### 6. RESPONSE TO NEOADJUVANT THERAPY IN HER+ BREAST CANCER: PRELIMINARY ANALYSIS OF REDOX AND IMMUNE-RELATED BIOMARKERS

**Paulo Luz**, Isabel Fernandes, Rocío D. Acero, Joana Magalhães, Salvador G. Casado, Juan B. Cañada, Elsa Campoa, José E. Morera, Beatriz Gosalbez, José Catarino, João Gregório, Pedro Faisca, João G. Costa, Ana S. Fernandes

17h30-  
18h15

**ROUNDTABLE: Teaching Pharmacology, Therapeutics and Toxicology**

*Chairs:* Bruno Sepodes, Isabel Vitória, Paulo Correia de Sá, Emília Monteiro, Cláudia Cavadas, Jorge Oliveira, Fernando Remião

*Speakers:* Jorge Oliveira, Fernando Remião

**TARGETING PROCRASTINATION AND SELF-DECEPTION TO PROMOTE INTEGRITY AND COMPETENCY IN A HYBRID LEARNING SYSTEM**

Jorge M. A. Oliveira

**FLIPPED CLASSROOM AND ITS IMPACTS IN TOXICOLOGY CLASSES: A SURVEY OF STUDENTS' PERCEPTIONS**

Fernando Remião, Amélia Veiga

18h15-  
19h30

**SPF GENERAL ASSEMBLY**

9h00-  
10h30

sala 1

## MOLECULAR AND CELLULAR THERAPIES I

*Chairs:* Clévio Nóbrega, Rosa Fernandes, José Noronha de Matos

### 1. INTRAOcular BIODEGRADABLE IMPLANTS LOADED WITH ADENOSINE A3 RECEPTOR AGONIST AFFORD PROTECTION TO RETINAL GANGLION CELLS

**Raquel Boia**, Paulo A. N. Dias, Caridad Galindo-Romero, Inês D. Aires, Manuel Vidal-Sanz, Marta Agudo-Barriuso, Paulo F. Santos, Hermínio C. de Sousa, António Francisco Ambrósio, Mara E. M. Braga, Ana Raquel Santiago

### 2. DEVELOPMENT OF AN ANTISENSE OLIGONUCLEOTIDES BASED THERAPY FOR MUCOLIPIDOSIS TYPE II $\alpha/\beta$ : IN VIVO STUDIES

**M. Gonçalves**, L. Matos, J. I. Santos, M. F. Coutinho, M. J. Prata, M. J. Pires, P. Oliveira, S. Alves

### 3. MAPPING THE DOMAINS OF RBP-X TOWARDS MITIGATION OF THE PATHOLOGICAL PHENOTYPE IN POLYGLUTAMINE DISEASE MODELS

**Rebekah Koppenol**, André Conceição, Diogo Teixeira, Adriana Marcelo, Ricardo Reis, Sandra Tomé, Sara Carmo-Silva, Carlos A. Matos, Luís Pereira de Almeida, Clévio Nóbrega

### 4. RBP-X PROTEIN MITIGATES MOTOR DEFICITS IN DIFFERENT MICE MODELS OF POLYGLUTAMINE DISEASES

**André Conceição**, Rebekah Koppenol, Joana Silva, Adriana Marcelo, Inês Afonso, Ricardo Reis, José Codesso, Sandra Tomé, Sara Carmo-Silva, Marco Ferreira, Carlos A. Matos, Luís Pereira de Almeida, Clévio Nóbrega

### 5. CRISPR/CAS9-MEDIATED SILENCING OF *ATXN2* EXPRESSION

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

### 6. MIXCAPAAV1/2 VECTOR: A NOVEL GENE DELIVERY SYSTEM DISTRIBUTION, SPREADING AND TROPISM ANALYSIS IN NORMAL MICE

**Inês Afonso**, Ana Carolina Silva, Carina Henriques, Miguel Lopes, Rafael Baganha, Patrícia Lima, Rebekah Koppenol, Rafael Costa, Luís Pereira Almeida, Clévio Nóbrega, Rui Nobre

### 7. AUTOPHAGY DYSFUNCTION IN SPINOCEREBELLAR ATAXIA TYPE 2 MODELS AND A POTENTIAL THERAPEUTIC STRATEGY

**Adriana Marcelo**, Ana Rosa, Marta Santos, Benedita Ferreira, Rebekah Koppenol, Carlos A. Matos, Luís Pereira de Almeida, Clévio Nóbrega

sala 2

## ENDOCRINE PHARMACOLOGY

*Chairs:* Flávio Reis, Sílvia Conde, Cláudia Cavadas

### 1. IN-DEPTH INSIGHTS OF HEPATOPROTECTIVE EFFECTS OF BLUEBERRIES IN A HYPERCALORIC DIET-INDUCED RAT MODEL OF PREDIABETES

**Sara Nunes**, Sofia D. Viana, Inês Preguiça, André Alves, Rosa Fernandes, Ivana Jarak, Rui A. Carvalho, Cláudia Cavadas, Anabela P. Rolo, Carlos M. Palmeira, Maria M. Pintado, Flávio Reis

### 2. CAROTID SINUS NERVE DENERVATION IMPACTS THE EXPRESSION OF HYPOTHALAMIC PROTEINS THAT REGULATE SATIETY PATHWAYS IN ANIMALS FED WITH TWO DIFFERENT HYPERCALORIC DIETS

**Adriana M. Capucho**, Bernardete F. Melo, Fátima O. Martins, Sílvia V. Conde

### 3. CAFFEINE DECREASES WEIGHT GAIN AND IMPROVES METABOLISM BY IMPACTING ON ADIPOSE TISSUE METABOLISM AND ANGIOGENESIS

**Solange M. Farreca**, Bernardete F. Melo, Fátima O. Martins, Sílvia V. Conde

### 4. STUDYING SATIETY INDUCED BY A NEW DIET IN A RODENT MODEL

**Daniela Costa**, Sara Carmo-Silva, Cláudia Almeida, Marisa Ferreira-Marques, Cláudia Cavadas

### 5. A NEUROENDCRINE PEPTIDE AS A SKIN ANTI-AGEING STRATEGY

**Ana Catarina Franco**, Marisa Ferreira-Marques, André Carvalho, Sara Carmo-Silva, Mariana Botelho, Cláudia Cavadas, Célia Aveleira

### 6. HYPOTHALAMIC NEUROPEPTIDE Y (NPY) AMELIORATES THE AGING PHENOTYPE OF A MOUSE MODEL OF HUMAN AGING

**Marisa Ferreira-Marques**, Mariana Botelho, Sara Carmo-Silva, Joana Pereira, Clévio Nóbrega, Carlos López-Otín, Luís Pereira de Almeida, Cláudia Cavadas, Célia A. Aveleira

### 7. REFINED FOOD PROCESSING ELICITS HARMFUL EFFECTS ON THE KIDNEY – A PRECLINICAL STUDY

**André Alves**, Pedro Vieira, Sara Nunes, Inês Preguiça, Beatriz Ormonde, Pedro Gomes, Flávio Reis, Sofia Viana

**8. ALLELE-SPECIFIC SILENCING OF MACHADO-JOSEPH DISEASE USING ANTISENSE OLIGONUCLEOTIDE THERAPEUTICS**

**Ana Carolina Silva**, Diana D. Lobo, Carina Henriques, Inês M. Martins, Sara M. Lopes, Sónia P. Duarte, Elizabeth Wagner, Rui Jorge Nobre, Luís Pereira de Almeida

**8. EFFECT OF COFFEE SILVERSKIN UPON SUGARS INTESTINAL UPTAKE BY CACO-2 CELLS**

**Juliana A. B. Peixoto**, Nelson Andrade, Susana Machado, Anabela S. G. Costa, M. Beatriz P. P. Oliveira, Rita C. Alves, Fátima Martel

10h30-  
11h15

**KEYNOTE LECTURE: Pierre Meulien (IMI)**  
**The impact of the Innovative Medicines Initiative (IMI) on the COVID-19 vaccines development**

*Chairs:* Beatriz Lima, Patrício Soares da Silva

*Sponsored by Infarmed*

sala 1

11h15-  
12h30

**CLINICAL PHARMACOLOGY II**

*Chairs:* Emília Monteiro, Margarida Castel-Branco, Ana Penedones

sala 1

**1. SYSTEMATIC REVIEWS AND META-ANALYSES PUBLISHED IN INDEXED PORTUGUESE MEDICAL JOURNALS: TIME TRENDS AND CRITICAL APPRAISAL**

**Luísa Prada**, Ana Prada, Miguel Marques Antunes, Ricardo Fernandes, João Costa, Joaquim J. Ferreira, Daniel Caldeira

**2. BRAIN MICRORNAS IN PLASMA-DERIVED EXTRACELLULAR VESICLES AS POTENTIAL BIOMARKERS FOR MACHADO-JOSEPH DISEASE**

**Maria M. Pinto**, Patrick Silva, Laetitia Gaspar, Carina Henriques, Rui Jorge Nobre, Inês Cunha, Joana Ribeiro, Cristina Januário, ESMI Consortium, Luís Pereira de Almeida, Magda M. Santana

**3. BRIEF RETROSPECTIVE DESCRIPTION OF ALL OFF-LABEL COVID-19 TARGETED THERAPIES IN AN ADULT INTENSIVE CARE UNIT IN PORTO DURING THE PORTUGUESE PANDEMIC FIRST WAVE**

**Gonçalo Cordeiro**, Marta Reina-Couto, Luís Figueira, Luís Coentrão, Fernando Magro, Roberto Pinto

**4. OBSTRUCTIVE SLEEP APNEA AND THE BIOLOGICAL CLOCK: AN INTERPLAY WITH POTENTIAL APPLICATIONS IN OSA DIAGNOSIS AND TREATMENT**

**Laetitia S. Gaspar**, Janina Hesse, Müge Yalçın, Bárbara Santos, Catarina Carvalhas-Almeida, Mafalda Ferreira, Joaquim Moita, Angela Relógio, Cláudia Cavadas, Ana Rita Álvaro

**5. DATABASES USED IN RHEUMATOLOGY TO ASSESS SAFETY OF BIOLOGICS: A SYSTEMATIC REVIEW**

**Alexandra Escada**, Ana Penedones, Albino-Teixeira, Francisco Batel-Marques

**TOXICOLOGY I**

*Chairs:* Renata Silva, Vasco Branco

sala 2

**1. VARENICLINE AND CIPROFLOXACIN INCREASE GLOBAL DNA METHYLATION AND HISTONE H3 ACETYLATION ON DIFFERENTIATED SH-SY5Y NEUROBLASTOMA CELLS**

**Sandra Marques**, Helena Carmo, Félix Carvalho, João Pedro Silva

**2. MARINE-DERIVED COMPOUNDS AS POTENTIAL NEUROPROTECTIVE AGENTS**

**Sandra Barreiro**, Fernando Remião, Sólida Long, Emília Sousa, Madalena Pinto, Renata Silva

**3. THE EFFECT OF METHYLMERCURY ON MICROGLIA INFLAMMATORY RESPONSES**

**João Novo**, Beatriz Martins, Ramon Raposo, Frederico Pereira, Reinaldo Oriá, João Malva, Carlos Fontes-Ribeiro

**4. WOLF IN SHEEP'S CLOTHING: CAPSOSOME ENCAPSULATED MANGANESE OXIDE NANOFLOWERS**

**Oksana K. Savchak**, Adam Armada-Moreira, Miguel A. Ramos-Docampo, Järvi M. Spanjers, Filipa F. Ribeiro, Ana M. Sebastião, Brigitte Städler, Sandra H. Vaz

**5. SYNTHETIC CANNABINOIDS INCREASE AUTOPHAGIC VACUOLES IN NG108-15 CELLS: INFLUENCE OF CB1R ACTIVATION**

Diana Dias da Silva, **Rita Roque Bravo**, Maria Rita Garcia, Catarina Pereira Teixeira, Helena Cabral, Helena Carmo, Félix Carvalho, João Pedro Silva

**6. MITOCHONDRIAL DYSFUNCTION IN OBSTRUCTIVE SLEEP APNEA PATIENTS AS A POTENTIAL BIOMARKER**

**Catarina Carvalhas-Almeida**, Laetitia Gaspar, Bárbara Santos, Ana Teresa Barros-Viegas, Sara Carmo-Silva, Fátima Teixeira, Mafalda Ferreira, Joaquim Moita, Cláudia Cavadas, Ana Rita Álvaro

**6. NEUROTOXICITY OF A SET OF SYNTHETIC CANNABINOID RECEPTOR AGONISTS IN NG108-15 CELLS**

Diana Dias da Silva, **María Rita Garcia**, Rita Roque Bravo, Helena Carmo, Félix Carvalho, João Pedro Silva

12h30-  
13h30

**BREAK**

13h30-  
15h00

sala 1

**TOXICOLOGY II**

*Chairs:* Joana Miranda, Fernando Remião, João Paulo Teixeira

**1. GLUCAGON INDUCES A MORE PERIportal PHENOTYPE IN HEPATOCYTE-LIKE CELLS**

**Joana S. Rodrigues**, Madalena T. Gonçalves, Ana S. Serras, Sérgio P. Camões, Joana P. Miranda

**2. IN VIVO HEPATOTOXIC EFFECTS IN RESPONSE TO THE ADMINISTRATION OF METHYLONE AND 3,4-DMMC TO WISTAR RATS**

**Daniela Rouxinol**, Helena Carmo, Ana Carolina Faria, João Pedro Silva, Maria de Lourdes Bastos, Félix Carvalho, Diana Dias da Silva

**3. METABOLISM OF PENTEDRONE AND METHYLONE IN HLCs: AN ENANTIOSELECTIVITY APPROACH**

**Bárbara Silva**, Joana Saraiva Rodrigues, Joana Miranda, Carla Fernandes, Paula Guedes de Pinho, Fernando Remião

**4. OVERCOMING TOLCAPONE HEPATOTOXICITY: A NANOMEDICINE-BASED APPROACH**

**Miguel Pinto**, Sandra Barreiro, Renata Silva, Carlos Fernandes, Fernando Remião, Fernanda Borges

**5. REPEATED ADMINISTRATION OF CLINICALLY RELEVANT DOSES OF TRAMADOL AND TAPENTADOL CAUSES HEPATORENAL TOXICITY IN WISTAR RATS**

**Joana Barbosa**, Juliana Faria, Sandra Leal, Vanessa Nascimento, Luís Pedro Afonso, Odília Queirós, Roxana Moreira, Frederico C. Pereira, Félix Carvalho, Ricardo Jorge Dinis-Oliveira

sala 2

**NEUROPHARMACOLOGY II**

*Chairs:* Sílvia Conde, Frederico Pereira, Diana Dias da Silva

**1. A SINGLE LOW DOSE OF COCAINE INDUCES STRUCTURAL BRAIN INJURY WITHOUT METABOLIC AND BEHAVIORAL CHANGES**

**Camilla Nicolucci**, Mariana L. Pais, Ana C. Santos, Fabiana M. Ribeiro, Pedro M. C. C. Encarnação, Ana L. M. Silva, Filipe Castro, Pedro M. M. Correia, João F. C. A. Veloso, Julie Reis, Marina Z. Lopes, Maria F. Botelho, Frederico C. Pereira, Denise G. Priolli

**2. MAPPING THE CENTRAL NEURAL CIRCUITS ACTIVATED BY CAROTID BODY IN DYSMETABOLIC STATES**

**Fátima O. Martins**, Bernardete F. Melo, Sílvia V. Conde

**3. PHYSIOLOGICAL SEX DIFFERENCES IN MICROGLIA AND BEHAVIOUR: ORGANIZATIONAL EFFECTS OF TESTOSTERONE**

Carla Henriques, **Alexandra Cruz**, Sofia Ferreira, Sofia Galvão, Catarina Neves, Rita Gaspar, António Francisco Ambrósio, Catarina Gomes, Filipa Baptista

**4. STRESS AT ADULTHOOD UPON PRENATAL STRESS: IMPACT ON BEHAVIOR AND CELL MORPHOLOGY**

**Rita Gaspar**, Carina Soares-Cunha, Bárbara Coimbra, Ana Verónica Domingues, Filipa I. Baptista, Nuno Sousa, António F. Ambrósio, Ana João Rodrigues, Catarina A. Gomes

**5. CHEMOBRAIN: EVALUATION OF DOXORUBICIN AND MITOXANTRONE NEUROTOXICITY IN CD-1 MICE**

**Ana Dias-Carvalho**, Ana Reis-Mendes, Margarida Duarte-Araújo, Félix Carvalho, Maria de Lourdes Bastos, Susana I. Sá, João Paulo Capela, Vera Marisa Costa

**6. COMBINATION EFFECTS BETWEEN ENVIRONMENTAL CARCINOGENS IN PRIMARY RAT HEPATOCYTES**

**Vânia Monteiro**, Ana Cristina Pinto, Joana Pinto, Paula Guedes de Pinho, Mário S. Diniz, Marta Martins, Diana Dias da Silva

**7. EISENIA FETIDA: OPTIMIZATION FOR PHARMACOLOGICAL/TOXICOLOGICAL ASSAYS**

**Beatriz Medeiros-Fonseca**, Mariana Gonçalves, Rita Silva-Reis, Francisco Peixoto, Isabel Gaivão, Manuela Matos, Maria de Lurdes Pinto, Marta Roboredo, João Ricardo, Ana Maria Coimbra, Paula Oliveira

**6. EMERGENT NEW PSYCHOACTIVE SUBSTANCES (NPS) TRIGGER NEUROINFLAMMATION AND OTHER NEUROTOXIC RESPONSES ON NEURONS AND MICROGLIA**

**Paulo Faria**, Hélio Crespo, Pedro Florindo, Álvaro Lopes, Ana Rita Vaz, Dora Brites

**7. DOES A SINGLE BINGE DOSING OF 4-CLOROETHCATHINONE (4-CEC) IMPAIR LEARNING AND MEMORY ABILITIES IN YOUNG MICE?**

**Margarida Leitão**, Hélio Crespo, Pedro Florindo, Rui Moreira, Dora Brites, Álvaro Lopes, Adelaide Fernandes, Cristina de Mello-Sampayo

15h00-  
15h45

**KEYNOTE LECTURE: Chris Goldring** (University Liverpool, UK)  
**Modelling drug-induced liver injury**  
*Chairs:* Jorge Gonçalves, Nuno Oliveira

sala 1

15h45-  
17h15

**INFECTION, INFLAMMATION, IMMUNITY**  
*Chairs:* Teresa Cruz, Rui Pinto

sala 1

**1. EFFECT OF ENDOPLASMIC RETICULUM (ER) STRESS ON ER-MITOCHONDRIA CONTACTS IN THE INNATE IMMUNE SYSTEM**

**Ana Catarina Pereira**, Jessica De Pascale, Susana Cardoso, Isabel Ferreira, Bruno Neves, Maria Teresa Cruz, Cláudia Pereira

**2. NEW SIRT1 ACTIVATOR TO TACKLE AGE-RELATED DISEASES**

**Cátia Sousa**, Bruno Miguel Neves, Fernando Judas, Alcino Jorge Leitão, Alexandrina Ferreira Mendes

**3. ENDOTHELIAL CELL ACTIVATION AND PROINFLAMMATORY STATUS DECREASE DURING HOSPITALIZATION IN SEPTIC SHOCK BUT NOT IN CARADIOGENIC SHOCK**

**Carolina Silva-Pereira**, Marta Reina-Couto, Patrícia Pereira-Terra, Janete Quelhas-Santos, Ana Sousa-Oliveira, Catarina Marques, Sandra Martins, Paula Serrão, Joana Afonso, Roberto Roncon-Albuquerque, José Artur Paiva, António Albino-Teixeira, Teresa Sousa

**4. AQUAPORIN 3 IS INVOLVED IN INFLAMMASOME ACTIVATION CONTRIBUTING TO THE SETTINGS OF INFLAMMATORY RESPONSE IN THP-1 CELLS**

**Inês Vieira da Silva**, Carlos Cardoso, Helios Martínez-Banaclocha, Angela Casini, Pablo Pelegrín, Graça Soveral

**NEUROPHARMACOLOGY III**

*Chairs:* Helder Mota-Filipe, Maria José Diógenes

sala 2

**1. PERISYNAPTIC SCHWANN CELL'S CALCIUM-SENSITIVE NITRIC OXIDE SYNTHASE AND RHO KINASE PARTICIPATE IN THE RETROGRADE NICOTINIC  $\alpha 7$  RECEPTOR CONTROL OF ACETYLCHOLINE EXOCYTOSIS**

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

**2. BEHAVIORAL RESPONSES IN A MOUSE MODEL OF NEUROPATHIC PAIN AFTER SYSTEMIC INHIBITION OF NADPH OXIDASE ISOFORM-2 (NOX2)**

**Luísa Teixeira-Santos**, Eduardo Veríssimo, Teresa Sousa, António Albino-Teixeira, Dora Pinho

**3. CANNABINOID TYPE 2 RECEPTOR AND EXERCISE-REGULATED NEUROTROPHIC FACTORS: A COMBINED EFFORT IN REGULATING SUBVENTRICULAR ZONE NEUROGENESIS**

**João B. Moreira**, Rui S. Rodrigues, Ana M. Sebastião, Sara Xapelli

**4. EXERCISING ON CANNABINOIDS: SHAPING DEPRESSION THROUGH ADULT HIPPOCAMPAL NEUROGENESIS**

**Rui S Rodrigues**, João B. Moreira, Ana M. Sebastião, Carlos P Fitzsimons, Sara Xapelli



**5. RELEVANCE OF NLRP3 INFLAMMASOME IN A1 ASTROCYTES – IMPACT OF A $\beta$ -INDUCED TOXICITY**

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

**6. ANIMAL MODELS FOR THE STUDY OF RARE INFECTIOUS DISEASES: MALARIA AND TUBERCULOSIS**

**Dinah Duarte**, Maria Beatriz da Silva Lima, Bruno Sepodes

**7. DYSBIOSIS AND LOW INTESTINAL ALKALINE PHOSPHATASE ACTIVITY ARE ASSOCIATED WITH COVID-19 SEVERITY**

João Ricardo Araújo, **Thainá Serafim**, André Moreira-Rosário, Cláudia Marques, Hélder Pinheiro, Inês Mota, Rita Ribeiro, Ana Pereira, Pedro Ribeiro, Maria José de Sousa, José Pereira-Leal, José de Sousa, Juliana Morais, Diana Teixeira, Diogo Pestana, Júlio César Rocha, Marta Silvestre, Nuno Príncipe, Nuno Gatta, José Amado, Lurdes Santos, Fernando Maltez, Ana Boquinhas, Germano de Sousa, Nuno Germano, Gonçalo Sarmento, Cristina Granja, Pedro Póvoa, Ana Faria, Conceição Calhau

**5. CANNABIDIOL PREFERENTIALLY AFFECTS GABA AND GLUTAMATE RELEASE FROM IMMATURE HIPPOCAMPAL NERVE TERMINALS**

**Tatiana Ventura**, Ana Caulino-Rocha, Rafael Neiva, M. Graça Lobo, Paulo Correia-de-Sá

**6. NANOBODY-BASED STRATEGIES TO TARGET S100B AND IMPROVE RECOVERY IN AN EX VIVO DEMYELINATING MODEL**

**Alexandre Neto**, Maria Vaz Pinto, Andreia Barateiro, Catarina Barros, Cláudio M. Gomes, Adelaide Fernandes

17h15-  
18h30

sala 1

**MOLECULAR AND CELLULAR THERAPIES II**

*Chairs:* Paulo Correia de Sá, Luís Pereira de Almeida

**1. TARGETING DEPRESSED MIR-146A IN ALS CORTICAL ASTROCYTES INHIBITS PHENOTYPIC ABERRANCIES AND CELL PARACRINE DAMAGE**

**Marta Barbosa**, Cátia Gomes, Catarina Sequeira, Joana Gonçalves-Ribeiro, Carolina C. Pina, Luís A. Carvalho, Rui Moreira, Sandra H. Vaz, Ana Rita Vaz, Dora Brites

**2. IMPORTIN-8 SILENCING PREVENTS MUTANT ATAXIN-3 AGGREGATION AND DELAYS MACHADO-JOSEPH DISEASE PROGRESSION**

**Inês Morgado Martins**, Anna Sowa, David Rufino-Ramos, Diana Duarte Lobo, Kevin Leandro, Ana Vasconcelos-Ferreira, Dina Pereira, Vítor Carmona, Olaf Riess, Thorsten Schmidt, Luís Pereira de Almeida

**3. OVEREXPRESSION OF MIR-124 IN MOTOR NEURONS PLAYS A KEY ROLE IN ALS PATHOLOGICAL PROCESS**

**Ana Rita Vaz**, Hermes Morais, Gecioni Loch-Neckel, Daniela Vizinha, Ana Rita Colaço, Marta Barbosa, Dora Brites

sala 2

**CANCER PHARMACOLOGY II**

*Chairs:* Jorge Gonçalves, Fátima Martel, Nuno Vale

**1. ISOPRENALINE INDUCES POLARIZATION OF HUMAN MACROPHAGES TO A PHENOTYPE MORE PERMISSIVE TO CANCER CELL EVASION**

Diogo Adão, **Flávia Pereira**, Maria José Oliveira, Jorge Gonçalves

**2. N-METHYL-N-NITROSOUREA AS A MAMMARY CARCINOGEN: PRACTICAL APPLICATION**

**Ana I. Faustino-Rocha**, Paula A. Oliveira, Adelina Gama, Rita Ferreira, Mário Ginja

**3. METABOLIC MARKERS CHANGED IN TYPE 2 DIABETES MELLITUS INTERFERE WITH GLUTAMINE UPTAKE AND ASCT2 EXPRESSION IN BREAST CANCER CELLS**

**Cláudia Silva**, Nelson Andrade, Ilda Rodrigues, Fátima Martel

**4. IDENTIFICATION OF DYSREGULATED MIRNAS IN HUMAN INDUCED PLURIPOTENT STEM CELL-BASED MODELS OF MACHADO-JOSEPH DISEASE: ONE STEP CLOSER TO A THERAPEUTIC APPROACH?**

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

**5. UNRAVELLING DYSREGULATED MICRORNAS IN A TRANSGENIC MOUSE MODEL OF MACHADO-JOSEPH DISEASE**

**Diana Santos**, Luis Pereira de Almeida, Sónia P. Duarte

**6. THE PRO-FIBROTIC ACTION OF ADENOSINE A<sub>2A</sub> RECEPTORS IN THE HUMAN DERMIS MAYBE DUE TO OVEREXPRESSION OF PANNEXIN-1 IN DETRIMENT OF CONNEXIN 43 HEMICHANNELS IN SUBCUTANEOUS FIBROBLASTS**

**Carina Herman-Sousa**, Ana Rita Pinheiro, Diogo Paramos-de-Carvalho, Maria Adelina Costa, Fátima Ferreirinha, Teresa Magalhães-Cardoso, S Ribeiro, Julie Pelletier, Jean Sévigny, Paulo Correia-de-Sá

**7. PHOTODYNAMIC THERAPY WITH GLYCOCONJUGATED PORPHYRINS FOR AGE-RELATED MACULAR DEGENERATION**

**Andreia Melo**, Sandra Beirão, Sara R. G. Fernandes, Beatriz Martins, Carlos Fontes-Ribeiro, Mário J.F. Calvete, João P.C. Tomé, Rosa Fernandes

**4. THE ANTIPROLIFERATIVE EFFECT OF METFORMIN POTENTIATES 5-FLUOROURACIL ON COLON ADENOCARCINOMA *IN VITRO* AND *IN VIVO*, INVOLVES THE MTORC1 PATHWAY AND IS INHIBITED BY GLUCOSE**

**Badr-Eddine Allal**, Susana Mendonça, Patrícia Carvalho, Abdelkader Bounaama, Abdelaziz Ismahen, Bahia Djerdjouri, Paula Fresco, Sérgia Velho, Jorge Gonçalves

**5. GLUTAMATE DEHYDROGENASE UPREGULATION IS ASSOCIATED TO 1,2-DIMETHYLHYDRAZINE-INDUCED COLORECTAL TUMORIGENESIS AND ROS SIGNALING**

**Badr-Eddine Allal**, Abdelkader Bounaama, Dany Silva, Ismahen Abdelaziz, Clara Quintas, Jorge Gonçalves, Bahia Djerdjouri

**6. EFFECTS OF PARECOXIB IN THE HT1376 HUMAN BLADDER CANCER CELL LINE**

**Carla Sousa**, Sílvia Lemos, Lúcio L. Santos, Paula A. Oliveira, Rosário Pinto-Leite

**7. EXERCISE TRAINING AS A POTENTIAL THERAPEUTIC AGENT FOR PROSTATE NEOPLASIA IN A RAT MODEL OF PROSTATE CANCER: NEW INSIGHTS INTO AN ENIGMA**

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

9h00-  
10h30

sala 1

### MOLECULAR AND CELLULAR THERAPIES III

*Chairs:* Sérgio Camões, Paula A. Martins de Oliveira, João Costa

#### 1. LIPOPOLYSACCHARIDE AND TUMOR NECROSIS FACTOR INDUCE EPITHELIAL MONOLAYER DISRUPTION AND RELEASE OF DISTINCT POPULATIONS OF EXTRACELLULAR VESICLES

**Beatriz Martins**, Teresa Rodrigues, José Ramalho, António Francisco Ambrósio, Henrique Girão, Rosa Fernandes

#### 2. DEVELOPMENT OF SINGLE-STEP AFFINITY CHROMATOGRAPHY PROTOCOLS FOR THE PURIFICATION OF ADENO-ASSOCIATED VIRAL VECTORS

**Rafael Baganha**, Miguel M. Lopes, Carina Henriques, David Rufino-Ramos, Luís Pereira de Almeida, Rui Jorge Nobre

#### 3. REGULATION OF *IN VITRO* POSTNATAL NEUROGENESIS BY THE VANILLOID RECEPTOR TRPV1

**Diogo M. Lourenço**, Rita Soares, Rui S. Rodrigues, Ana M. Sebastião, Sara Xapelli

#### 4. CANNABINOID ACTIONS ON RETT SYNDROME'S ASSOCIATED DEFICITS AND ITS EFFECT ON POST-NATAL NEUROGENESIS IN A FEMALE MECP2-MUTANT MOUSE MODEL

**Svitlana Zavalko**, Francisco M. Mouro, Diogo M. Lourenço, Catarina Miranda-Lourenço, João Fonseca-Gomes, Joana M. Mateus, Rui S. Rodrigues, Sara R. Tanqueiro, Ana M. Sebastião, Maria José Diógenes, Sara Xapelli

#### 5. IPSC-DERIVED NEUROEPITHELIAL STEM CELLS DEPLETED FOR MUTANT ATAXIN-3 FOR MACHADO-JOSEPH DISEASE TREATMENT

**Sandra O. Braz**, Catarina Vinhas, Daniel Henriques, Rosário Faro, Sónia Duarte, Luís Pereira de Almeida, Liliana S. Mendonça

#### 6. DOWNREGULATION OF NTPDASE3 INCREASES OSTEOGENESIS OF POSTMENOPAUSAL BONE MARROW-DERIVED MESENCHYMAL STROMAL CELLS BY FAVORING P2X7 AND P2Y6 RECEPTORS ACTIVATION

**Rui Pinto-Cardoso**, M. Teresa Magalhães-Cardoso, Catarina Bessa-Andrês, Fátima Ferreirinha, M. Adelina Costa, José Marinhos, Rolando Freitas, Julie Pelletier, Jean Sévigny, José Bernardo Noronha-Matos, Paulo Correia-de-Sá

#### 7. PHENOTYPIC CHARACTERIZATION OF A RELEVANT MODEL OF MACHADO-JOSEPH DISEASE: THE YAC-MJD MOUSE MODEL

**Ana Daniela Oliveira**, Sara M. Lopes, Miguel M. Lopes, Patrícia Albuquerque, Magda M. Santana, Luís Pereira de Almeida

sala 2

### PHARMACOKINETICS

*Chairs:* Amílcar Falcão, Gilberto Alves, Patrício Soares da Silva

#### 1. QUANTIFICATION OF ANTIEPILEPTIC DRUGS IN HUMAN SALIVA BY HPLC-DAD AS A NEW TOOL FOR THERAPEUTIC DRUG MONITORING

**Andreia Carona**, Joana Bicker, Rui Silva, Ana Silva, Isabel Santana, Francisco Sales, Amílcar Falcão, Ana Fortuna

#### 2. TRANSLATIONAL PHARMACOKINETICS: THERAPEUTIC DRUG MONITORING OF ANTIBIOTICS AND PBPK MODELING

**Abigail Ferreira**, Helena Martins, José Carlos Oliveira, Rui Lapa, Nuno Vale

#### 3. CLINICAL PHARMACOKINETIC STUDY OF LATREPIDINE VIA *IN SILICO* SUBLINGUAL ADMINISTRATION

**Joana Santos**, Luísa Lobato, Nuno Vale

#### 4. NOSE-TO-BRAIN DELIVERY OF PERAMPANEL: A PROMISING THERAPEUTIC APPROACH FOR EPILEPSY

**Sara Meirinho**, Márcio Rodrigues, Adriana O. Santos, Ana Fortuna, Amílcar Falcão, Gilberto Alves

#### 5. ASSESSMENT OF EPILEPTIC PATIENTS COMPLIANCE TO LEVETIRACETAM THERAPY THROUGH A PHARMACOKINETIC APPROACH

**Rui Silva**, Anabela Almeida, Joana Bicker, Andreia Carona, Francisco Sales, Amílcar Falcão, Ana Fortuna

#### 6. INTRANASAL CO-ADMINISTRATION OF ESCITALOPRAM AND PAROXETINE IN MICE

**Soraia Silva**, Carla Fonseca, Ricardo Ferreira, Carla Vitorino, Gilberto Alves, Joana Bicker, Amílcar Falcão, Ana Fortuna

#### 7. ZAMICASTAST METABOLISM AND DISPOSITION IN HUMANS

**A. I. Loureiro**, João Ferreira, Ana Santos, Maria João Bonifácio, Eric Chevalier, P. Soares-da-Silva

**8. PHENOTYPIC CHARACTERIZATION OF NEURONAL CULTURES DERIVED FROM MACHADO JOSEPH-DISEASE INDUCED PLURIPOTENT STEM CELLS**

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

10h30-  
11h15

**KEYNOTE LECTURE: Guido Rasi** (Past Executive Director of EMA | University of Rome Tor Vergata)  
**The contribution of Pharmacological Sciences to the development of Regulatory Science: the last 10 years and a look into the future**

*Chairs:* Bruno Sepodes, Helder Mota-Filipe  
*Sponsored by* Infarmed

sala 1

11h15-  
12h30

**ENDOCRINOLOGY & GASTROENTEROLOGY PHARMACOLOGY**

*Chairs:* Conceição Calhau, Fernando Magro, Manuela Morato

sala 1

**1. A PROPOSED LECTIN-MEDIATED MECHANISM TO EXPLAIN THE *IN VIVO* ANTI-HYPERGLYCEMIC ACTIVITY OF  $\gamma$ -CONGLUTIN FROM *Lupinus albus* SEEDS**

**Madalena Grácio**, João Rocha, Rui Pinto, Ricardo Boavida Ferreira, Maria Eduardo-Figueira, Bruno Sepodes, Ana Cristina Ribeiro

**2. TNBS-INDUCED COLITIS IN RATS: REFINING AN OLD MODEL**

**Mariana Ferreira-Duarte**, Tiago Rodrigues-Pinto, Daniela Menezes-Pinto, Marisa Esteves-Monteiro, Fernando Magro, Manuela Morato, Margarida Duarte-Araújo

**3. STRUCTURAL AND FUNCTIONAL CHANGES IN THE COLON OF STZ-INDUCED DIABETIC RATS**

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

**4. COLONIC EFFECT OF H<sub>2</sub>S IN A RAT MODEL OF TNBS-INDUCED COLITIS**

**Daniela Menezes-Pinto**, Mariana Ferreira-Duarte, Marisa Esteves-Monteiro, Margarida Duarte-Araújo, Manuela Morato

**5. GUT MICROBIOTA: A THERAPEUTIC TARGET IN TYPE 2 DIABETES**

**Shámila Ismael**, Marta P. Silvestre, Miguel Vasques, João R. Araújo, Juliana Morais, Maria Inês Duarte, Diogo Pestana, Ana Faria, José Pereira-Leal, Joana Vaz, Pedro Ribeiro, Diana Teixeira, Cláudia Marques, Conceição Calhau

**TOXICOLOGY III**

*Chairs:* Vera Costa, Ricardo Dinis-Oliveira, Paula Guedes de Pinho

sala 2

**1. CYSTEINE OXIDATION IS A PUTATIVE AHR ACTIVATOR IN KIDNEY CORTEX (MAL)ADAPTATION TO CHRONIC INTERMITTENT HYPOXIA CONDITIONS**

**M. João Correia**, António Pimpão, Catarina O. Sequeira, Nuno R. Coelho, Filipa Lopes-Coelho, Jacinta Serpa, Emília C. Monteiro, Judit Morello, Sofia A. Pereira

**2. EVALUATION OF MODULATION OF P-GLYCOPROTEIN EXPRESSION/ACTIVITY IN HK2 CELLS**

**Jéssica Veiga-Matos**, Ana I. Morales Martín, Renata Silva, Fernando Remião, Marta Prieto Vicente

**3. CHARACTERIZATION OF COLORECTAL CARCINOGENESIS IN A RAT ANIMAL MODEL**

**Rita Silva-Reis**, Catarina Ribeiro, Mariana Gonçalves, Tiago Ferreira, João Ferreira, Isabel Gaivão, Maria João Pires, Rita Ferreira, Adelina Gama, Paula Oliveira

**4. INTERINDIVIDUAL VARIABILITY IN *ABCB1* EXPRESSION IN HUMAN SERTOLI CELLS**

**Samuel Silva**, Ana Martins, Renata Silva, Fernando Remião, Marco Alves

**5. INFLAMMATORY PATHWAY INVOLVEMENT ON MITOXANTRONE-INDUCED CARDIOTOXICITY: AN *IN VIVO* STUDY**

**Ana Reis-Mendes**, José Luís Soares-Sousa, Ana Isabel Padrão, Margarida Duarte-Araújo, José Alberto Duarte, Vítor Seabra, Salomé Gonçalves-Monteiro, Fernando Remião, Félix Carvalho, Emília Sousa, Maria Lourdes Bastos, Vera Marisa Costa

**6. METABOLIC AND MICROBIOME ALTERATIONS IN THE INTESTINAL ENVIRONMENT INDUCED BY FRUCTOSE-FEEDING IN RATS ARE AFFECTED BY CHRYSIN**

**Nelson Andrade**, Cláudia Marques, Sara Andrade, Cláudia Silva, Ilda Rodrigues, Luísa Guardão, João T. Guimarães, Elisa Keating, Conceição Calhau, Fátima Martel

**7. THE INFLUENCE OF *Ganoderma lucidum* IN THE LIVER OF AN ANIMAL MODEL OF OBESITY**

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

**8. REDUCTION OF INFLAMMATION AND COLON INJURY BY A SPEARMINT PHENOLIC EXTRACT IN EXPERIMENTAL BOWEL DISEASE IN MICE**

**Rosa Direito**, João Rocha, Maria Margarida Gonçalves, Maria Paula Duarte, Vanessa Mateus, Catarina Sousa, Adelaide Fernandes, Rui Pinto, Bruno Sepodes, Maria-Eduardo Figueira

**6. CANNABIDIOL INDUCES APOPTOSIS AND AUTOPHAGY IN PLACENTAL TROPHOBLAST CELLS**

**Patrícia Alves**, Cristina Amaral, Natércia Teixeira, Georgina Correia-da-Silva

**7. THE IMPACT OF CANNABINOIDS ON PLACENTAL TROPHOBLAST INVASION AND ANGIOGENESIS**

**João Maia**, Bruno Fonseca, Natércia Teixeira, Georgina Correia-da-Silva

12h30-  
13h30

**BREAK**

13h30-  
14h45

sala 1

**NEUROPHARMACOLOGY IV**

*Chairs:* Sara Xapelli, Ana Cristina Rego

**1. MITOCHONDRIAL MODULATION BY DIFFERENT FORMS OF CARNITINE IN AN *IN VITRO* MODEL OF ALZHEIMER'S DISEASE**

**Sandra I. Mota**, Inês Pita, Rodolfo Águas, Slah Tagorti, Ashraf Virmani, Frederico C. Pereira, A. Cristina Rego

**2. MECHANISM OF ASTROCYTE FOR NEUROTOXICITY OF AMYLOID- $\beta$ : IMPLICATION OF D-SERINE**

**Daniela S. Abreu**, Sara Pinto, Joana I. Gomes, João Fonseca-Gomes, Hugo Vicente-Miranda, Ana Maria Sebastião, Maria José Diógenes, Sandra H. Vaz

**3. IMPACT OF ASTROGLIAL TOXIN, L-A-AMINOADIPATE, ON MOUSE HIPPOCAMPAL SYNAPTIC PLASTICITY IN MODELS OF ALZHEIMER'S DISEASE**

**Cátia R. Lopes**, Marlene C. Pereira, Inês Amaral, Paula M. Canas, Rodrigo A. Cunha, Paula Agostinho

sala 2

**TOXICOLOGY IV**

*Chairs:* João Paulo Capela, André Araújo, Cristina Carvalho

**1. BIOMONITORING OF METALS AND MINERALS IN URINE OF PORTUGUESE SCHOOL-AGED CHILDREN: REFERENCE VALUES AND DETERMINANTS OF EXPOSURE**

**Inês Rebelo**, Virgínia Cruz Fernandes, Elisa Keating, João Costa Leite, Diana Teixeira, Maria Luz Maia, Sónia Norberto, Edgar Pinto, André Moreira-Rosário, Diana Sintra, Bárbara Moreira, Ana Costa, Sofia Silva, Vera Costa, Inês Martins, Francisca de Castro Mendes, Pedro Queirós, António Guerra, Manuel Fontoura, Irene Palmares Carvalho, Rui Matias Lima, Catia Martins, Cristina Delerue-Matos, Agostinho Almeida, Luís Azevedo, Conceição Calhau, Diogo Pestana

**2. ASSESSMENT OF NON-CARCINOGENIC RISK FROM LEAD CONTAMINATION OF LETTUICES CULTIVATED IN AN URBAN AREA IN THE CENTER OF PORTUGAL – PRELIMINARY RESULTS**

Joana Salvado, **Vanda Andrade**, Maria de Fátima Cruz, Ana Paula Marreilha dos Santos, Maria Luísa Mateus

**3. SELENIUM AND SELENOPROTEIN LEVELS IN PREGNAT WOMEN OF THE ISLAND OF MADEIRA: THE CONFOUNDING EFFECT OF MERCURY EXPOSURE**

**Vasco Branco**, Luís Carvalho, Cássia Barboza, Maria Eduarda Mendes, Afonso Cavaco, Cristina Carvalho

**4. UNVEILING THE MOLECULAR MECHANISM OF AMIDATED-KYTORPHIN: A NEUROPROTECTION ACTION AGAINST A $\beta$ -INDUCED ALZHEIMER'S DISEASE PATHOPHYSIOLOGY**

**Rita F. Belo**, Margarida L. F. Martins, Liana Shvachiy, Tiago Costa-Coelho, Carolina de Almeida-Borlido, João Fonseca-Gomes, Vera Neves, Hugo Vicente Miranda, Tiago F. Outeiro, Joana E. Coelho, Sara Xapelli, Cláudia A. Valente, Montserrat Heras, Eduard R. Bardaji, Miguel A. R. B. Castanho, Maria José Diógenes, Ana M. Sebastião

**5. VESICLE DISSEMINATION OF NEURONAL TRKB-ICD IN SECRETOME: RELEVANCE FOR ALZHEIMER'S DISEASE PATHOPHYSIOLOGY**

**Tiago Costa-Coelho**, João Fonseca-Gomes, Gonçalo Garcia, Mafalda Ferreira-Manso, Oksana K. Savchak, Sara Pinto, Ana M. Sebastião, Dora Brites, Maria José Diógenes

**6. THE CELLULAR PLAYERS INTERVENING IN CEREBRAL ISCHEMIA-REPERFUSION INJURY ASSOCIATED WITH STROKE**

**Sofia Santos**, João Solas, Vanessa Mateus, Bernardo Ratilal, Bruno Sepodes, Adelaide Fernandes, João Rocha

**7. FORMULATION, CHARACTERIZATION AND EVALUATION AGAINST SH-SY5Y CELLS OF NEW TACRINE AND TACRINE-MAP LOADED WITH LIPID NANOPARTICLES**

**Sara Silva**, Joana Marto, Lídia Gonçalves, António J. Almeida, Nuno Vale

**4. IN VITRO EVALUATION OF THE EFFECT OF OXIDATIVE STRESS IN PLACENTAL FUNCTION**

**Lúgia Ribeiro**, Cláudia Silva, Fátima Martel

**5. CHARACTERIZATION OF DRUG INTOXICATIONS PROFILE IN THE EMERGENCY DEPARTMENT OF THE TRÁS-OS-MONTES E ALTO DOURO HOSPITAL CENTER**

**Daniela Maio Dias**, Cecília Fonseca, Eugenia Gallardo, André R. T. S. Araujo

**6. RELEASE OF ANTIDIURETIC HORMONE (ADH) IN WISTAR RATS IN RESPONSE TO THE ADMINISTRATION OF METHYLONE AND 3,4-DMMC: THE GENDER IMPACT**

**Ana Carolina Faria**, Helena Carmo, Daniela Rouxinol, João Pedro Silva, Maria de Lourdes Bastos, Félix Carvalho, Diana Dias da Silva

**7. SUB-CHRONIC TOXICITY EVALUATION OF GREEN ENZYME-ASSISTED PROCESSING OF SENESCENT VACCINIUM LEAVES BIOMASS IN MICE**

**Inês Preguiça**, Carolina Ferreira, Sara Nunes, André Alves, Pedro Vieira, Mónica Zuzarte, Artur Figueirinha, Lígia Salgueiro, Flávio Reis, Sofia Viana

14h45-  
15h30

**KEYNOTE LECTURE: Rui Medeiros** (IPO-Porto, PT)

*Chairs:* Rui Pinto, M<sup>ª</sup> José Diógenes

**Transforming Genomics into Therapeutics and Precision Medicine**

sala 1

15h30-  
16h45

**NEUROPHARMACOLOGY V**

*Chairs:* Jorge Oliveira, Sandra Vaz, Alexandrina Mendes

sala 1

**1. ROLE OF ASTROCYTES IN HIPPOCAMPAL SYNAPTIC DYSFUNCTION IN ALS**

**Sara Pinto**, Ana M. Sebastião, Sandra H. Vaz

**2. ALLOSTERIC ACTIVATION OF HSP70 MODULATES N-TERMINAL AND FULL-LENGTH HUNTINGTIN PROTEOSTASIS IN CELLULAR MODELS**

**Brígida R. Pinho**, Liliana Almeida, Ângela Oliveira, Michael Duchon, Jorge M. A. Oliveira

**CLINICAL PHARMACOLOGY III**

*Chairs:* Francisco Batel-Marques, João Rocha

sala 2

**1. EFFECTIVENESS IN CLINICAL PRACTICE VS EFFICACY OF DIPEPTIDYL PEPTIDASE-4 INHIBITORS IN CLINICAL TRIALS FOR TYPE 2 DIABETES: A SYSTEMATIC REVIEW**

Francisco Batel-Marques, **Diogo Pereira**, Diogo Mendes, Carlos Alves, Ana Penedones

**2. EVALUATION OF THE IMPACT OF OBSTRUCTIVE SLEEP APNEA AND ITS TREATMENT ON SENESCENT ASSOCIATE SECRETORY PHENOTYPE**

**Bárbara Santos**, Laetitia Gaspar, Catarina Carvalhas-Almeida, Ana Teresa Barros-Viegas, Sara Carmo-Silva, Clara Santos, Sara Carvalho, Denny Marques, Joaquim Moita, Cláudia Cavadas, Ana Rita Álvaro

**3. A NEW PHARMACOLOGICAL APPROACH TO PREVENT SYNAPTIC LOSS AND PROMOTE MYELIN PHAGOCYTOSIS: A STEP FORWARD TO MODULATE COGNITIVE IMPAIRMENT AND REMYELINATION IN MS**

**Maria V. Pinto**, Fábio M.F. Santos, Andreia Barateiro, Pedro M. P. Gois, Adelaide Fernandes

**4. PENTAMIDINE PREVENTS MULTIPLE SCLEROSIS-LIKE PATHOGENESIS BY NEUTRALIZING S100B TOXIC EFFECTS**

**Catarina Barros**, Andreia Barateiro, Afonso Basto, Dora Brites, Luís Graça, Adelaide Fernandes

**5. IMPROVED FRAILTY INDEX SCALE IN *IN VIVO* MODEL OF MULTIPLE SCLEROSIS: A NOVEL APPROACH TO BETTER UNDERSTAND PHENOTYPIC ALTERATIONS IN DISTINCT MICE- AGED**

**Ana Rita Ribeiro**, Catarina Barros, Andreia Barateiro, Susan E. Howlett, Adelaide Fernandes

**3. USE OF SALIVA TO STUDY MODIFICATIONS IN THE CIRCADIAN CLOCK**

**Sara Carmo-Silva**, Rui Pinto, Marisa Ferreira-Marques, Cláudia Cavadas

**4. EUROPEAN SPINOCEREBELLAR ATAXIA TYPE 3/ MACHADO-JOSEPH DISEASE INITIATIVE: CLINICAL OVERVIEW OF THE COIMBRA'S COHORT**

**Patrick Silva**, Magda M. Santana, Inês Cunha, Joana Ribeiro, ESMI Consortium, Cristina Januário, Luís Pereira de Almeida

**5. URINARY BIOMARKERS OF OXIDATIVE STRESS, INFLAMMATION AND VASCULAR DYSFUNCTION IN SEPTIC SHOCK PATIENTS AND THEIR RELATIONSHIP WITH ORGAN DYSFUNCTION AND PROGNOSIS**

**Patrícia Pereira-Terra**, Marta Reina-Couto, Carolina Silva-Pereira, Marisa Oliveira-Santos, Álvaro Duarte, Paula Serrão, Joana Afonso, Roberto Roncon-Albuquerque, José Artur Paiva, António Albino-Teixeira, Teresa Sousa

16h45-  
18h00

sala 1

**NEUROPHARMACOLOGY VI**

*Chairs:* Catarina A. Gomes, Ana Paula Silva

**1. MICROGLIA MORPHOLOGY IN HYPO- AND HYPERFUNCTIONAL PATHWAYS: INSIGHTS FROM A RODENT MODEL OF SCHIZOPHRENIA**

**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

**2. ROLE OF ETHOSUXIMIDE ON CHILDHOOD ABSENCE EPILEPSY COMORBIDITIES**

**Mariana Neuparth Sottomayor**, Carolina Pina, Jorge Miguel Ferreira, Francisco Mouro, Tatiana P. Morais, Ana Maria Sebastião, Vincenzo Crunelli, Sandra H. Vaz

**3. NLRP3 INFLAMMASOME-DRIVEN NEURODEGENERATION AND EPILEPTIFORM ACTIVITY IN A MODEL OF EPILEPTOGENESIS IN ORGANOTYPIC SLICES**

**Francisco J. Meda**, Mafalda Carvalho, Leonor Ribeiro-Rodrigues, Ana M. Sebastião, Cláudia A. Valente

**4. IMPACT OF METHYLPHENIDATE ON THE RETINA IN CONTROL AND ADHD CONDITIONS**

**Eliane Swely Sanches**, Raquel Boia, Ricardo Leitão, João Martins, Maria Madeira, Carlos A. Fontes-Ribeiro, Francisco Ambrósio, Rosa Fernandes, Ana Paula Silva

sala 2

**CANCER PHARMACOLOGY III**

*Chairs:* Lucília Saraiva, Natércia Teixeira

**1. NEW TRENDS FOR ANTIMALARIAL DRUGS: SYNERGISM BETWEEN ANTINEOPLASTICS AND ANTIMALARIALS ON BREAST CANCER CELLS**

**Diana Duarte**, Nuno Vale

**2. A XANTHONE WITH ANTICANCER ACTIVITY BY POTENTIAL INHIBITION OF HOMOLOGOUS RECOMBINATION DNA REPAIR IN BREAST AND OVARIAN CANCER**

**Juliana Calheiros**, Liliana Raimundo, Carla Carvalho, Stefano Indraccolo, Marta Correia da Silva, Emília Sousa, Lucília Saraiva

**3. TONIC ACTIVATION OF  $\beta$  AND  $\alpha_2$ -ADRENOCEPTORS BY CATECHOLAMINES RELEASE FROM BREAST CANCER CELLS MAY CONTRIBUTE TO CANCER PROGRESSION**

**Dany Silva**, Filipa Amaro, Henrique Reguengo, José C. Oliveira, Clara Quintas, Nuno Vale, Jorge Gonçalves, Paula Fresco

**4. EFFECTS OF CROTOXIN IN ESTROGEN RECEPTOR-POSITIVE BREAST CANCER**

**Cristina Ferreira Almeida**, Cristina Amaral, Maria Regina Torqueti, Tiago V. Augusto, Georgina Correia-da-Silva, Natércia Teixeira

**5. CLEAVAGE OF BDNF RECEPTOR IN A MODEL OF EPILEPSY**

**Leonor Ribeiro-Rodrigues**, João Fonseca-Gomes, Sara L. Paulo, Svitlana Zavalko, Vítor H. Paiva, Ana M. Sebastião, Sara Xapelli, Maria José Diógenes

**6. ADENOSINERGIC IMPAIRMENT IN RETT SYNDROME: EXPLORING A NEW POSSIBLE THERAPEUTIC TARGET**

**Catarina Miranda-Lourenço**, Cátia Palminha, Sofia T. Duarte, Tiago M. Rodrigues, Teresa Magalhães-Cardoso, Mariana Colino-Oliveira, Nádia Rei, Jéssica Rosa, Sara Xapelli, Sara Ferreira, Paulo Correia-de-Sá, Ana M. Sebastião, Maria José Diógenes

**5. SEARCHING FOR IMPROVED LEM2-DERIVATIVES FOR NEUROBLASTOMA THERAPY**

**Joana Almeida**, Mariana Silva, Diana Resende, Madalena Pinto, Emília Sousa, Lucília Saraiva

**6. EFFECT OF TMBIM4 IN GLIOMA 2D AND 3D CELL INVASION**

**Marta Martins**, Ana Fernandes, Hélène Castel, Nuno Saraiva

18h00-  
18h15

**CLOSING SESSION**

SPF Board and Organizing Committee

sala 1





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