

July 12th, 2019



II ANNUAL

CiMUS

WORKSHOP

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Center for Research
on Molecular Medicine and
Chronic Diseases



UNIÓN EUROPEA



XUNTA
DE GALICIA

On behalf of the Organizing Committee and myself, it is my pleasure to welcome you to the **II Annual CiMUS Workshop** on July 12th, 2019. The essential idea, following last year's success, is to provide an opportunity to our younger scientists to share their work with their colleagues and to promote awareness of the scientific projects carried out in our Center.

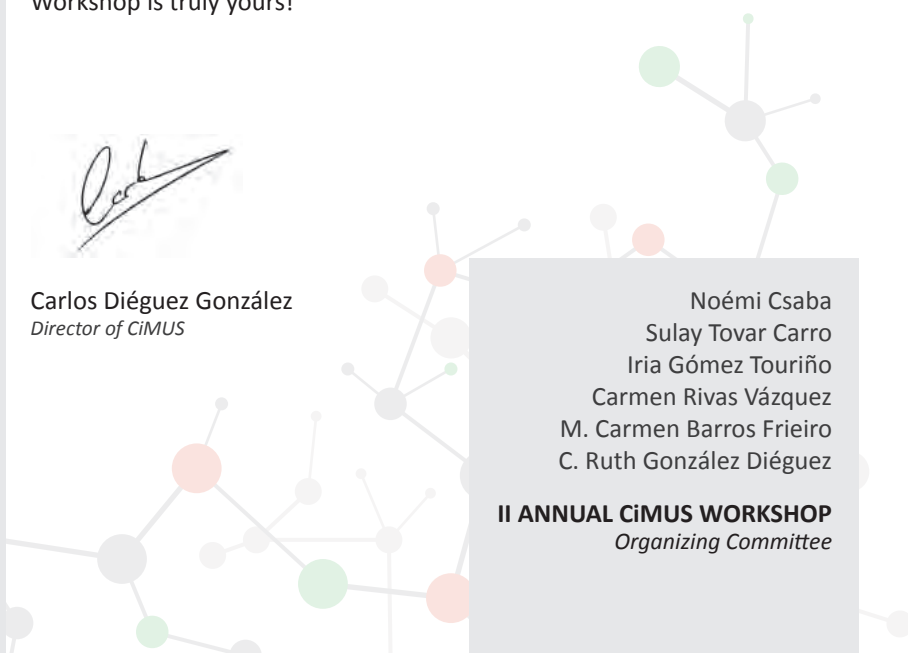
Biomedical research is one of the fastest growing scientific disciplines all over the world. At CiMUS, the flagship Galician center in Biomedicine, we are employing multi-disciplinary approaches to improve human health and therefore, the Workshop will showcase our advances in areas like Cancer, Endocrinology and Nutrition, Drug Discovery, Genetics and Bioinformatics, Nanomedicine, Neuroscience and Cardiovascular Diseases.

The event will comprise oral presentations, poster teasers, two poster sessions and a superb Keynote Lecture from Prof López Barneo (IBIS, Seville). Importantly, we have allowed plenty of time for breaks and networking, as this Workshop is intended to encourage the establishment of new synergies and collaborative opportunities.

We hope that you will enjoy this day and look forward to all of you engaging in active discussions thus further reinforcing that the CiMUS Workshop is truly yours!



Carlos Diéguez González
Director of CiMUS



Noémi Csaba
Sulay Tovar Carro
Iria Gómez Touriño
Carmen Rivas Vázquez
M. Carmen Barros Frieiro
C. Ruth González Diéguez

II ANNUAL CiMUS WORKSHOP
Organizing Committee

ACKNOWLEDGMENTS



KEYNOTE SPEAKER

José López Barneo

ORAL SESSION CHAIRS EVALUATION COMMITTEE MEMBERS

SESSION I: Clara Álvarez Villamarín & Marcos García Fuentes

SESSION II: José M.C. Tubío & Rubén Nogueiras

SESSION III: Anxo Vidal & Celia Pombo

POSTER EVALUATION COMMITTEE

Miguel González

Miguel López

José López-Barneo

Jesús Requena

Jannette Rodríguez

Rosa Señarís

Dolores Viña

Juan Zalvide

TECHNICAL ASSISTANCE

José Manuel Ageitos

Sheila Barrios Esteban

Laura Gómez García

Yanis Hichem Bouzaher

Antón Leandro Martínez Rodríguez

Sandra Robla Álvarez

Rocío Seoane Abelenda

PROGRAM

09:00 - 09:30

REGISTRATION

09:30 - 09:50

WELCOME AND INTRODUCTION

09:50 - 11:20

SESSION 1 (*all talks 7 min + 3 min questions*)

09:50 - 10:00

Vera García-Outeiral (Stem Cells and Human Diseases)

The RNA methyltransferase TRDMT1 coordinates cell-fate specification in early embryogenesis.

10:00 - 10:10

Alicia L Bruzos (Genomes and Disease)

Single-molecule sequencing of whole mitochondrial genomes reveals the clonal structure of cockle transmissible cancers.

10:10 - 10:20

Maite Baz-Martínez (Virus and Cancer)

Reduced Capacity of Bombali Ebolavirus virus-like particles to infect human cells.

10:20 - 10:30

Elia Álvarez Coiradas (Pharmacology Applied to Drug Discovery)

Targeting the IL-17 inflammatory pathway of psoriasis with small molecules.

10:30 - 10:40

Tamara G Dacoba (Nanomedicine and Drug Delivery)

Tailoring nanoparticle design for the modulation of the immune response against HIV.

10:40 - 10:50

Javier Lugalde (Diabetes)

Influence of aging and GH deficiency in Ghrelin and LEAP-2 effect.

10:50 - 11:00

Aitana Alonso González (Genomics and Bioinformatics)

Unravelling the role of post-zygotic mutations in ASD etiology.

11:00 - 11:20

Poster teasers 1-6 (*1 slide, 1 min each*)

11:20 - 11:50

COFFEE, NETWORK, POSTERS

11:50 - 13:20

SESSION 2 (*all talks 7 min + 3 min questions*)

11:50 - 12:00

Carla Garcia-Mazas (Biomaterials & Drug Delivery)

New polymers for gene therapy in the fight against cancer.

12:00 - 12:10

Martín Santamarina (Genomes and Disease)

The evolutionary dynamics of somatic retrotransposition in a millennial cancer lineage.

12:10 - 12:20

Miriam Sartages (Laboratory for vascular biology)

Testing the effectiveness of inhibitors in the survival of cells lacking CCM3.

12:20 - 12:30

Maruthi Prasanna (Natural Polymers and Biomimetics)

Role of polymeric nanoparticles in enhancing the immunogenicity of glycoconjugate vaccines.

12:30 - 12:40

Francisco Triana-Martínez (Pharmacology Applied to Drug Discovery)

Identification of cardiac glycosides as a new class of senolytic compounds and senolytic therapy in cancer.

12:40 - 12:50

María García-Garrote (Cell and Molecular Neurobiology of Parkinson's disease)

Role of dopamine-angiotensin interactions in the regulation of adult neurogenesis in the rodent subventricular zone.

12:50 - 13:00

Sabela Casado (Diabetes)

Melanin-concentrating hormone on glucose metabolism.

13:00 - 13:20

Poster teasers 7-11 (*1 slide, 1 min each*)

13:20 - 16:00

LUNCH + POSTER SESSION

14:00 - 15:00

Odd-numbered posters

15:00 - 16:00

Even-numbered posters

16:00 - 17:10

SESSION 3 (*all talks 7 min + 3 min questions*)

16:00 - 16:10

Eva G Alvarez (Genomes and Disease)

Aberrant integration of viral DNA promotes major restructuring of cancer genome architecture in human tumours.

16:10 - 16:20

Lidia Hermida Nogueira (Platelet Proteomics)

Platelet storage lesion: Proteomic analysis of extracellular vesicles derived from platelets treated with Mirasol.

16:20 - 16:30

Edward Milbank (NeurObesity)

Exosome-mediated targeting of hypothalamic AMPK α 1 corrects obesity through BAT activation.

16:30 - 16:40

Rocío Seoane (Virus and Cancer)

Activation of EIF5A in virus and cancer.

16:40 - 16:50

Sheila Barrios (Natural Polymers and Biomimetics)

Mechanistic evaluation of polymeric nanocarriers in 2d and 3d glioblastoma models.

16:50 - 17:00

Carmen Fernández Varela (Nanomedicine and Drug Delivery)

Resiquimod-loaded Nanocapsules for Tumor Associated Macrophages Reprogramming to treat Lung and Pancreatic Cancer.

17:00 - 17:10

Raquel Carreira (DNA Repair & Genome Integrity)

Processing of early recombination intermediates by the structure-selective endonucleases Yen1 and Mus81.

17:10 - 17:40

COFFEE BREAK

17:40 - 18:45

KEYNOTE SPEAKER:

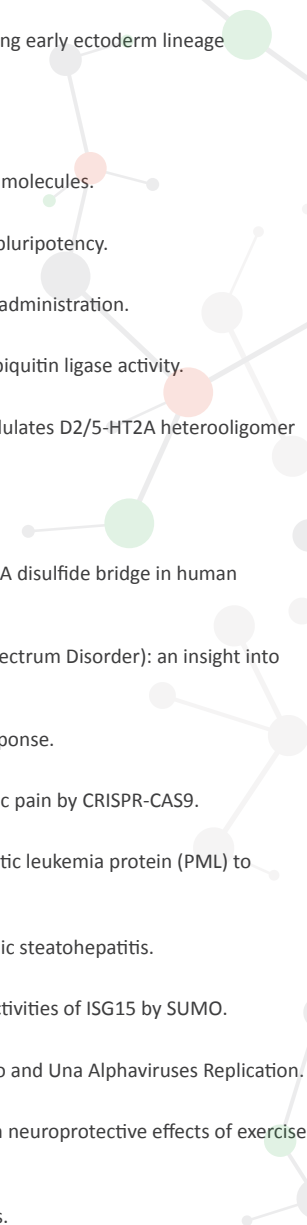
J. López-Barneo: "A search for a neuroprotective therapy in Parkinson's disease"

18:45 - OPEN

AWARDS AND CONCLUDING REMARKS.

SNACKS, PROJECT DISCUSSIONS, FEEDBACK...

POSTER INDEX

- 
- POSTER 1** **ADRIANA ESCUDERO**
Histone aminotransferase 1 is a novel player governing early ectoderm lineage commitment.
- POSTER 2** **ALBA IGLESIAS**
Glioblastoma invasiveness and AMPK.
- POSTER 3** **ALEJANDRO RODRÍGUEZ RODRÍGUEZ**
Identification of novel anti-inflammatory small-drug molecules.
- POSTER 4** **CRISTINA AMENEIRO**
Circadian clock-independent functions of BMAL1 in pluripotency.
- POSTER 5** **DIEGO PAN**
Characterization of a delivery platform for oral drug administration.
- POSTER 6** **AHMED EL-MOTIAM**
Sumo-nedd8 interplay regulates the cullin-ring e3 ubiquitin ligase activity.
- POSTER 7** **LAURA GÓMEZ-GARCÍA**
Typical and atypical antipsychotics differentially modulates D2/5-HT2A heterooligomer signaling.
- POSTER 8** **MAR GARCÍA COLOMER**
Isolation of MEKK3 as a putative Mst3 substrate.
- POSTER 9** **MARTA CIMADEVILA**
Characterization of the essential role of C148A-C227A disulfide bridge in human 5-HT2A binding capacity.
- POSTER 10** **CRISTINA RODRIGUEZ-FONTENLA**
Copy number variable microRNAs in ASD (Autism Spectrum Disorder): an insight into the miRNA-CNV interaction and their biological role.
- POSTER 11** **SARA VÁZQUEZ MERA**
MST3 kinase: a new modulator of glucocorticoid response.
- POSTER 12** **SARA VEIGA**
Development of cellular models of acute neuropathic pain by CRISPR-CAS9.
- POSTER 13** **FRANCISCO TRIANA-MARTÍNEZ**
Identifying Small Molecule Degradors of Promyelocytic leukemia protein (PML) to Target Triple Negative Breast Cancer.
- POSTER 14** **UXÍA FERNÁNDEZ**
Hepatic p63 regulates the progression of nonalcoholic steatohepatitis.
- POSTER 15** **YANIS H. BOUZAHER**
Modulation of the antiviral and tumor suppressor activities of ISG15 by SUMO.
- POSTER 16** **YESSICA LLAMAS**
Role of the Ubiquitin-Proteasome System for Mayaro and Una Alphaviruses Replication.
- POSTER 17** **ANDREA LÓPEZ-LÓPEZ**
Role of Angiotensin, IGF-1, SIRT1, SIRT3, and VEGF in neuroprotective effects of exercise in aged brain.
- POSTER 18** **JENIFER BREA IGLESIAS**
A new molecular test to change the cancer diagnosis.

POSTER 19

MIGUEL CHENLO

Unmasking a new prognostic marker and therapeutic target from the GDNF-RE-T/PIT1/p14ARF/p53 pathway in acromegaly.

POSTER 20

SANDRA ROBLA ÁLVAREZ

Conjugated antigen-chitosan nanosystems as candidates for nasal immunization.

POSTER 21

JUAN CUÑARRO

p107, A new regulator of hepatic lipid metabolism.

POSTER 22

DANIEL GARCÍA-SOUTO

Development of a WGA protocol for low input DNA minion libraries.

POSTER 23

ELENA GOIRICELAYA

Uses of CRISPR / Cas9 technology in biomedicine: Functional validation of new biomarkers for Chronic Lymphocytic Leukemia (CLL).

POSTER 24

JAVIER TEMES

Starting up a long read sequencing facility.

POSTER 25

LUIS ARTURO MORÁN

High throughput screening of small molecule inhibitors of CLEC-2 platelet receptor: Searching for a novel anti-platelet agent.

POSTER 26

MARÍA TUBÍO

Emotional assessment of executive functions in Obsessive Compulsive Disorder.

POSTER 27

MARÍA CEBRO-MÁRQUEZ

Omentin protects H9c2 cells against docetaxel cardiotoxicity.

POSTER 28

PAULA OTERO

Identification of genomic rearrangements in human diseases using single-molecule sequencing technologies.

POSTER 29

PRICILA PFLÜGER

Gamma-decanolactone as a MAO-B partially reversible inhibitor in Parkinson's disease treatment.

POSTER 30

SAEED KHAAZAEI

Design and preparation of a cancer vaccine against non-small cell lung cancer based on self-assembling peptide nanoparticles.

POSTER 31

ÓSCAR FREIRE AGULLEIRO

Hypothalamic regulation of energy balance. Role of AMPK.

POSTER 32

YARA SOUTO

Zmym2 Regulates Citrullination in Chromatin through Padi4 Repression.

POSTER 33

MAURO GISBERT-VERDÚ

Breast cancer cells and tumor microenvironment: Does AMPK play a relevant role?

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DAVID FUNES

Physicochemical characterization of vegetable sponges (Luffa).

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TADEU DE OLIVEIRA

Neurotoxicity and neuroprotection in Parkinson's Disease: Comparative study of neuronal models.

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ALEJANDRO FUENTES-IGLESIAS

ADAR1-dependent RNA editing safeguards mesenchymal-to-epithelial transition by alleviating ER stress.

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BERNARDO RODRIGUEZ-MARTIN

Hidden retrotransposon-mediated structural variation in cancer genomes revealed by Oxford Nanopore sequencing.

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MARCOS FERNÁNDEZ

Hepatic GPRSS receptor regulates the development of non-alcoholic fatty liver disease.

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NURIA LÓPEZ

Assessment of the anti-prion properties of different tetrapyrroles in a cell model of prion propagation.

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JOSÉ ÁNGEL PARDAVILA

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YAIZA BUGALLO-CODESEIRA

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MARÍA ALICIA COSTA-BESADA

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IGOR GOMEZ-RANDULFE

Organoids as an improved in vitro model of glioma.

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TEASER 11

ANDREA GARCÍA SILVA

Quantification of functional bias and study of relevant structural aspects for functional selectivity of 5-HT2A ligands.

