



19th Meeting of the Spanish Society of Medicinal Chemistry



19º Congreso de la Sociedad Española de Química Terapéutica

## Committees

### Organizing Committee

- Francisco Palacios, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain
- Eva María Priego, Medicinal Chemistry Institute – CSIC, Madrid, Spain
- Ana M<sup>a</sup> Ochoa de Retana, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain
- Gloria Rubiales, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain
- Edorta Martínez de Marigorta, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain
- Concepción Alonso, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain
- Jesús M. de los Santos, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain
- Javier Vicario, University of the Basque Country UPV/EHU, Vitoria-Gasteiz, Spain

### Scientific Committee

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- Pilar Goya, Medicinal Chemistry Institute – CSIC, Madrid, Spain
- Marina Gordaliza, University of Salamanca, Salamanca, Spain
- Barbara Noverges, Faes Farma, Bilbao, Spain
- Javier Fernández Gadea, Janssen-Cilag, Toledo, Spain
- Antoni Torrens, Esteve Farma, Barcelona, Spain

# SCIENTIFIC PROGRAMME

MONDAY, JULY 8th

16:00 Registration

18:00 OPENING CEREMONY

## *Opening session*

Chairpersons: J. Fernández Gadea and Francisco Palacios

18:15-19:15 PL-01 **Yvette van Kooyk** "The function of glycans in cancer-immunology"

19:15 SEQT AWARDS

20:00 Welcome cocktail. Vitoria Museum of Fine Arts

# SCIENTIFIC PROGRAMME

TUESDAY, JULY 9th

## Session 1

Chairpersons: Joaquín Pastor and Joaquín C. García-Martínez

09:00-09:35	KN-01	Catherine Llorens-Cortes "Central-acting aminopeptidase A inhibitors for new treatment of hypertension: from discovery to clinical trial"
09:35-09:50	OC-01	Álvaro Lorente "Optimization of kinase inhibition and metabolic stability of pyrazolopyridine inhibitor of Yeast Kinase YCK2"
09:50-10:05	OC-02	Carmen Escolano "Preclinical data on (2-imidazolin-4-yl)phosphonates"
10:05-10:20	OC-03	Alejandra Rodríguez "Discovery and development of a novel nanomolar F508-del CFTR corrector for the treatment of cystic fibrosis"
10:20-10:25	FL-01	Javier García-Marín "New tools in medicinal chemistry: design, synthesis & evaluation of new molecules for the modulation of integrin linked kinase: a new target for chronic kidney disease"
10:25-10:30	FL-02	M. Dolores Moya-Garzón "Dual GO/LDHA inhibitors for the treatment of primary hyperoxaluria type 1"
10:30-10:35	FL-03	Carolina Izquierdo "Chemical tools to modulate KChIP3 signaling"
10:35-10:40	FL-04	Silvia M. Barolo "Synthesis of novel conformationally restricted sulfonamides as antiproliferative agents"
10:40-10:45	FL-05	Mario De Juan "Synthesis of 1H-1,2,3-triazoles from heterochalcones as potential antiproliferative agents"
10:45-10:50	FL-06	Xabier del Corte "Synthesis and evaluation of the cytotoxic activity of 3-amino-1,5-dihydro-2H-pyrrol-2-ones"

11:00-11:30 Coffee break

## Session 2

Chairpersons: Rosario González Muñiz and Eddy Sotelo

11:30-12:05	KN-02	GianLuca Sbardella "Sympathy for the methyl: a library-on-library screening approach to identify small-molecule ligands of methyl-lysine reader proteins"
12:05-12:20	OC-04	Joaquín C. García "Anti-biofilm activity of new oligostyrylbenzene compounds over sessile cells of <i>Candida tropicalis</i> "
12:20-12:35	OC-05	Sara del Mazo "Tetrazoles as analogs of combretastatin A-4"
12:35-12:50	OC-06	Concepción Alonso "Design, synthesis and biological evaluation as antiproliferative agents of heterocyclic fused [1,5]naphthyridines"
12:50-13:05	OC-07	Fernando Herranz "Bioorthogonal Chemistry for the <i>in vivo</i> diagnosis of cardiovascular diseases"
13:05-13:10	FL-07	Bruno Di Geronimo "A proposed protac binding mode in kinases. Is an allosteric binding mode possible?"
13:10-13:15	FL-08	Victor Carramiñana "Probing the anticancer potential of new phosphorylated aziridine derivatives"

13:15-13:20	FL-09	Irene Fernández-Barahona "Cu-doped iron oxide nanoparticles with large longitudinal relaxivity; one-pot synthesis and <i>in vivo</i> tumour detection by magnetic resonance imaging"
13:20-13:25	FL-10	Marta Gargantilla "Chalcone-mimetics as Nocht inhibitors: synthesis, conformational studies and biological effects in an <i>in vitro</i> model of T-cell acute lymphoblastic leukemia"
13:25-13:30	FL-11	María Fuertes "Synthesis of phosphorated quinolines and biological evaluation as topoisomerase I inhibitors"

13:30-15:30 **Lunch**

### **Session 3**

Chairpersons: Juan J. Vaquero and Javier Luque

15:30-16:05	KN-03	Maria Laura Bolognesi "Harnessing polypharmacology with medicinal chemistry in Alzheimer's Disease drug discovery"
16:05-16:20	OC-08	Diego Muñoz-Torreal "Revolving around the antioxidant lead CR-6: a new class of multitarget compounds against Alzheimer's Disease"
16:20-16:35	OC-09	Antonio Viayna "On the bioactive species of azocene-based AChE inhibitors: interplay between activity and tautomerism"
16:35-16:40	FL-12	Clara Herrera-Arozamena "New neurogenic inducers with combined activities in key targets related to Alzheimer's Disease"
16:40-16:45	FL-13	Paloma Mayo "New GSK3β inhibitors and L-VDCCs blockers with neuroprotective potential for the treatment of Alzheimer's Disease"
16:45-16:50	FL-14	Carlota Tosat-Bitrian "Neurodots: a novel approach for drug discovery in neurodegenerative diseases"
16:50-16:55	FL-15	Andrea L. Turcu "Open-channel blockers of the NMDA receptor in the Alzheimer's Disease"

17:00-17:30 **Coffee break**

### **Session 4**

Chairpersons: María José Camarasa and Jordi Quintana

17:30-18:05	KN-04	Modesto J. Remuiñán "Teaching new tricks to an old dog: reprogramming ethionamide to fight multidrug resistant tuberculosis"
18:05-18:20	OC-10	Mónica Cacho "Decaprenylphosphoryl-β-D-ribose oxidase (DprE1) as a promising target of mycobacterium tuberculosis inhibitors"
18:20-18:25	FL-16	Mikel Etxebeste-Mitxeltorena "Selenocyanate and diselenide derivatives as novel antileishmanial drugs"
18:25-18:30	FL-17	Asier Selas "Antileishmanial activity of phosphorated novel quinoline derivatives"
18:30-18:35	FL-18	Victor Sebastián-Pérez "Discovery of novel <i>s. mansoni</i> phosphodiesterase inhibitors as potential agents against schistosomiasis"

18:45 **Guided walking tour of the old city (group 01 · Spanish)**

# SCIENTIFIC PROGRAMME

WEDNESDAY, JULY 10th

## Session 5

Chairpersons: Bárbara Noverges and Fernando Herranz

09:00-09:35	KN-05	Gonçalo L. Bernardes "Chemical physiology of antibody conjugates and natural products"
09:35-09:50	OC-11	Jordi Quintana "EU-OPENSCREEN drive: building the European academic chemical library"
09:50-10:05	OC-12	Javier Rojo "Peptide-adjuvant conjugates to modulate the immune response in allergic diseases"
10:05-10:10	FL-19	Alejandro Revuelto "Dimerization modulators of trypanothione reductase as innovative potent and selective leishmanicidal agents"
10:10-10:15	FL-20	Carme Masdeu "A new functionalized DNA-based nanostructure as antileishmanial agent"
10:15-10:20	FL-21	Olaia Martí-Marí "Tryptophan trimers and tetramers: extremely potent and selective entry inhibitors of HIV and EV71"
10:20-10:55	KN-06	Ignacio Alfonso "Supramolecular approaches to Chemical Biology"

11:00-11:30 Coffee break

## Session 6

Chairpersons: Diego Muñoz-Tornero and Javier Rojo

11:30-12:05	KN-07	José Ignacio Andrés "Chemical Biology and proteomics in drug discovery: beyond target identification and target validation"
12:05-12:20	OC-13	Ouldouz Ghashghaei "Near infrared fluorogenic Trp-bodipy cyclopeptide for <i>in vivo</i> imaging of carcinomas selectively targeting keratin 1"
12:20-12:35	OC-14	María Muñoz-Hernando "Enzyme-driven multimodal detection of atherosclerosis with iron oxide nanoparticles"
12:35-12:50	OC-15	Ana Mallo "A multicomponent approach enabled the discovery of D2 ligands simultaneously exhibiting receptor subtype and biased selectivity"
12:50-12:55	FL-22	Martín Estrada-Valencia "Surface plasmon resonance for the discovery of new non-electrophilic inhibitors of Keap1-Nrf2 protein-protein interaction"
12:55-13:00	FL-23	Joaquín C. García-Martínez "Chemodosimeters based on PPV dendrimers as fluoride anion sensor"
13:00-13:05	FL-24	Claudia Gioé "Multicomponent-assisted GPCR modulation: adenosine receptors as a case study"
13:05-13:10	FL-25	Gloria Tobajas "New chemical tools to investigate protein misfolding diseases"
13:10-13:15	FL-26	Belén Rubio-Ruiz "Development of Pd-loaded exosomes for targeted bioorthogonal catalysis"
13:15-13:20	FL-27	Adrián Monteiro "Ugi-based assembly of peripheral selective rimonabant analogues"

13:30-15:30 **Lunch**

### **Session 7**

Chairpersons: Guillermo de la Cueva and Rodolfo Lavilla

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|-------------|-------|---|
| 15:30-16:30 | PL-02 | <b>Erik M. Carreira</b> “Discovery and surprises with natural products and their connection to human Biology”                                   |
| 16:30-16:45 | OC-16 | <b>María Majellaro</b> “A <sub>2B</sub> Antagonists as anticancer drugs: enantioselective recognition, optimization and ligand profiling”       |
| 16:45-16:50 | FL-28 | <b>Myriam González</b> “A privileged scaffold in the search for new tubulin binding drugs: the sulfonamide”                                     |
| 16:50-16:55 | FL-29 | <b>Aitor Maestro</b> “Synthesis and biological evaluation of hybrid bis-(3-indolyl)methane phosphonate derivatives as antiproliferative agents” |
| 16:55-17:00 | FL-30 | <b>Sarah Mazzotta</b> “ <i>In vitro</i> anti-proliferative effect of novel small molecules with acyl piperazine moiety”                         |

17:00 **Coffee break**

17:30 **SEQT MEETING**

17:30 **Guided walking tour of the old city (group 02 · English)–(group 03 · Spanish)**

21:00 **Conference dinner.** Restaurant “El Portalón”

# SCIENTIFIC PROGRAMME

THURSDAY, JULY 11th

## Session 8

Chairpersons: Manuel Medarde and Antonio Pineda-Lucena

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|-------------|-------|--|
| 09:30-10:05 | KN-08 | Benoit R. Gauthier "LRH-1/NR5A2 a novel drug target for Diabetes therapeutics"   |
| 10:05-10:20 | OC-17 | Alba Vicente-Blázquez "Novel tubulin ligands: design, synthesis and characterization of the antitumor mechanism of action" |
| 10:20-10:25 | FL-31 | Rubén Prieto "Discovery of potent and highly selective A <sub>2B</sub> antagonist chemotypes"                              |
| 10:25-10:30 | FL-32 | Karim Tighilet "Phytochemical composition, antiproliferative and antioxidant activities of <i>retama monosperma</i> "      |
| 10:30-10:35 | FL-33 | Loganathan Rangasamy "Pharmacophore hybridization to discover novel CK2/HDAC dual inhibitors"                              |
| 10:35-10:40 | FL-34 | Carlos Rodríguez "Novel series of A <sub>2A</sub> antagonists: design, synthesis and SAR studies"                          |

11:00-11:30 Coffee break

## Session 9

Chairpersons: Beatriz de Pascual-Teresa and Víctor Segarra

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|-------------|-------|---|
| 11:30-12:05 | KN-09 | Kristof van Emelen "New and emerging technologies for modern day's medicinal chemistry"                                 |
| 12:05-12:10 | FL-35 | Ana Carolina Ruberte "Seleno-heteroaryl derivatives as selective antitumoral agents"                                    |
| 12:10-12:15 | FL-36 | Endika Martín-Encinas "Synthesis and biological evaluation of fused [1,5]naphthyridines by intramolecular HDA reaction" |

## Closing session

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|-------------|-------|--|
| 12:15-13:15 | PL-03 | Luis M. Liz-Marzán "Diagnosis and therapy based on gold nanoparticles" |
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13:15 MEETING CLOSURE

PL: Plenary Lecture

KN: Keynote

OC: Oral communication

FL: Flash communication