

# V JORNADAS DE MEDICINA GENÓMICA Y ONCOLOGÍA GENYO 2017

Thursday, 14<sup>th</sup> December

## WELCOME AND INTRODUCTION

08.45 - 09.00 **Prof. José Antonio Lorente** Scientific Director GENyO

## MASTER STUDENT SESSION

*Session Chair: María Tristán*

09.00 - 09.15 **Araceli Aguilar Gonzalez**  
“Triplex forming PNAs as a genome editing tool: comparative with CRISPR/Cas9 system in a Wiskott-Aldrich syndrome model.”

09.15 – 09.30 **María Fe Padial Alarcón**  
“Design and evaluation of a nanotechnology based approach for mRNA delivery”

09.30 – 09.45 **Ana Rodriguez Ramos**  
“Polymorphisms in phase I-metabolizing enzyme and hormone receptor genes influence the response to anti-TNF therapy”

09.45 – 10.00 **Juan Elías González Correa**  
“Gene-Cell Therapy for Pompe disease”

10.00 – 10.30 **COFFEE BREAK**

## KEYNOTE SPEAKER

10.30 – 12.00 **Dr. Manuel Serrano** Institute for Research in Biomedicine (IRB Barcelona) Barcelona, Spain.  
“An integrated view of cellular senescence and reprogramming”

12.00 - 13.30 **1<sup>ST</sup> POSTER SESSION**

13.30 - 15.00 LUNCH provided by organizers

### PhD STUDENTS (<3 years) SESSION

*Session Chair: Helena Gómez*

15.00 - 15.15 **Diego De Miguel Pérez**  
“MiRNA expression of exosomes in breast cancer diagnosis”

15.15 - 15.30 **Pablo Tristán Ramos**  
“A new role for let-7 microRNAs as tumor suppressors: controlling human LINE-1 retrotransposition”

15.30 – 15.45 **María Tristán Manzano**  
“Preclinical studies of an improved lentiviral vector for Wiskott-Aldrich syndrome gene therapy: getting closer to physiological expression of WASP”

15.45 – 16.00 **Antonio Delgado González**  
“PCR-Free technology for miR-21 rapid detection directly from tumour cells”

16.00 - 17.00 2<sup>nd</sup> POSTER SESSION

### TECHNO-SCIENTIFIC SESSION

17.00 - 17.20 **Dr. Jesús Cancelas.** Product Manager Cell Biology Cultek.  
“Gene Editing Tools: Transfection Reagents vs Nucleofection”

### POSTDOCTORAL RESEARCHERS SESSION

*Session Chair: Dr. Guillermo Barturen*

17.20 – 17.35 **Dr. Elena Carnero Montoro**  
“Epigenomic signature of SLE genetic variation”

17.35 – 17.50 **Dr. Laura Cabeza Montilla**  
“Doxorubicin-loaded poly(-caprolactone)nanoparticles to improve drug antitumor effect”

Friday, 15<sup>th</sup> December

TECHNO-SCIENTIFIC SESSION

09.00 – 09.20 **Aida Soler.** Sr. Marketing Technical Specialist, Illumina Spain.  
“Illumina – BioRad Single Cell Sequencing Solution”

PhD STUDENTS (>3 years) SESSION

*Session Chair: Dr. David Cano*

09.20 - 09.35 **Sabina Sanchez-Hernandez**  
“Comparison of Zinc Finger Nucleases versus CRIPR-Specific nucleases for Genome Editing of Wiskott-Aldrich Syndrome Locus”

09.35 – 09.50 **Daniel Toro Dominguez**  
“Robust stratification of lupus patients based on longitudinal gene expression data and disease activity patterns”

09.50 - 10.05 **Angélica Luque Gonzalez**  
“SNF-SMART kit: a chemical-based kit for an accurate and simple differentiation of trypanosomatids”

10.05 - 10.35 COFFEE BREAK

MEET WITH THE EDITORS

*Session Chair: Dr. José Antonio López Escámez*

10.35 – 11.05 **Alejo Chorny.** Senior Editor. Journal of Experimental Medicine

11.05 - 11.35 **Louisa Flintoft.** Chief Editor. Genome Biology

11.35 – 12.15 **Discussion**

12.15 – 12.45 AWARDS AND CLOSING



CENTRO PFIZER-UNIVERSIDAD DE GRANADA-JUNTA DE ANDALUCIA  
DE GENÓMICA E INVESTIGACIÓN ONCOLÓGICA

**Organizer Committee:**

Dr. Verónica Ramos  
Dr. José Antonio López Escámez  
Dr. Pedro Medina

**Collaborators:**

Alberto Ramirez  
Raffaele Donnabella  
Noemí Dougnac

**Sponsors:**



Genyo



Universidad de Granada

## POSTERS:

1. Evaluating the impact of the ADAMTS1 protease on immune landscape during anti-angiogenic treatment. Silvia Redondo García, GENYO.
2. ATF4 is activated by TGF $\beta$  and modulates the metastatic properties of triple negative breast cancer cells through the regulation of epithelial-to-mesenchymal transition. Sergio Granados Principal, GENYO.
3. Unbiased detection of off-target cleavage by CRISPR-Cas9 using linear amplification-mediated PCR (LAM-PCR). Rocío Martín Guerra, GENYO.
4. Molecular profiling and function of exosomes derived from Non-Small Cell Lung Cancer. Diagnostic, predictive and prognostic biomarkers. ExoAlk and resistance. Pablo Reclusa, UZA/UAntwerpen
5. Development of a Functional Mass cytometry Methodology with Utility for clinical studies of Patients with Systemic Autoimmune Diseases (SADs). Paulina Rybakowska, GENYO
6. The role of pro-inflammatory cytokines in the differential diagnosis of Vestibular Migraine and Meniere's Disease. Marisa Flook Pereira, GENYO
7. Oscillatory expression of molecular clock proteins in mouse embryonic stem cells. María Quintana Romero, GENYO.
8. RNaseH2, mutated in Aicardi-Goutieres syndrome, is required for LINE-1 retrotransposition. María Benítez Guijarro, GENYO.
9. Improve of the paclitaxel activity by the use of polymeric nanoparticles of lactic and glycolic acid: assay in multicellular spheroids from lung cancer cells. Julia Jiménez López, Centro de Investigaciones Biomédicas
10. Inhibitors of the HA-CD44 interaction as antiproliferative compounds. José Manuel Espejo Román, UGR
11. An ImmunoChip-based approach identifies ARNT2 and CX3CR1 as susceptibility loci for invasive aspergillosis. Jose Manuel Sanchez Maldonado, GENYO.
12. mCSEA: An R package for detection of differentially methylated regions. Jordi Martorell Marugán, GENYO.
13. Plakophilin 1 enhances MYC expression to promote squamous cell lung cancer. Joel Martín Padrón, GENYO.
14. Study of Acute Megakaryoblastic Leukemia with expression of RBM15-MKL1 oncogen using a new human model based in human pluripotent stem cells. José Joaquín Olmedo Pelayo, GENYO.
15. Characterization of a pluripotent cell line expressing the fusion protein NUP98-JARID1A. Joan Domingo, GENYO.
16. Suicide gene therapy directed by microRNA activity. Isabel Fernández Coira, GENYO.
17. Gene priming of developmental regulators in pluripotent cells is cell-cycle-dependent and modulated by Jarid2. Helena Gómez Asenjo, GENYO.
18. CRISPR/Cas9 system applied to Bernard-Soulier Syndrome treatment. Gonzalo Martínez Navajas, GENYO.
19. The CoQ-SQOR interaction regulates the sulfide metabolism. Cristina Mascaraque Molina, Centro de Investigaciones Biomédicas.
20. Vasculogenic mimicry in human melanoma cell lines: effect of the protease ADAMTS1. Carlos Peris Torres, GENYO.
21. Autophagic dysfunction in Papillon Lefèvre is restored by recombinant Cathepsin C treatment. Beatriz Castejón Vega, Universidad de Sevilla

22. *BCL7A has a tumor suppressor role in diffuse large b-cell lymphoma.* Carlos Baliñas Gavira, GENYO.
23. *Microbiome study of urine obtained by bladder catheterization of subjects with clinic of urinary infection and a non-significant count of fast growth microorganisms.* Ana Soriano Lerma, GENYO.
24. *Linking the molecular clock and senescence in mouse embryonic stem cells.* Amador Gallardo de los Reyes, GENYO.
25. *Alterations of lncRNA expression in lung adenocarcinoma.* Alberto Manuel Arenas, GENYO.
26. *Large-scale mutational analysis in non-coding RNAs in lung adenocarcinoma.* Álvaro Andrades Delgado, GENYO.
27. *The inhibition of zebrafish LINE-2 retrotransposition impacts locomotor activity.* Meriem Benkaddour Boumzaouad, GENYO
28. *Role of hypoxia and PARP in the modulation of vasculogenic mimicry in malignant melanoma.* Mónica Fernández Cortés, Instituto Parasitología y Biomedicina López-Neyra
29. *Tripalmitin and P4VP nanoparticles as paclitaxel delivery systems for breast cancer treatment.* Gloria Perazzoli, UGR.

#### DIGITAL POSTERS:

1. *Genetic Vaccine.* Juan Carlos Alvarez Perez, GENYO
2. *A crispr/cas-based strategy to study the role of LINE in Aicardi Goutières Syndrome using a vertebrate model.* Ana Ariza Cosano, GENYO
3. *Runx1 isoforms regulate hematopoietic differentiation of human pluripotent stem cells.* Maria del Mar Bonillo Lamolda, GENYO
4. *Towards the molecular taxonomy of systemic autoimmune diseases: Clustering analysis of transcriptome profiles by non-negative matrix factorization.* Ariana Casas Román, GENYO
5. *Genotyping data beyond case-control association study.* Ainara Fernández Sacristán, GENYO
6. *Pateamine A. Inhibition of translation process as a treatment for systemic lupus erythematosus.* Gonzalo Gómez Hernández, GENYO
7. *Terapias naturales dirigidas frente al cáncer de pulmón no microcítico.* Isabel Gris Cárdenas, UGR
8. *Development of a nanodevice for exosomes detection based on an antibody recognition approach.* Jose Antonio Laz Ruiz, GENYO
9. *Amide-controlled, one-pot synthesis of tri-substituted purines generates structural diversity and analogues with trypanocidal activity.* Álvaro Lorente Macías, UGR
10. *Regulation of microRNA expression by chromatin remodelling complexes in Non-Small Cell Lung Cancer (NSCLC).* Paola Peinado Fernández, GENYO
11. *Inhibitors association of the Wnt pathway with cardiovascular disease in type 2 diabetes mellitus.* Daniel Pérez Bartivas, IBS Granada
12. *Specific targeting of transfection reagents based on polyethyleneimine (PEI) and infrared fluorescent dyes to eucaryotic cells.* Simona Plesselova, UGR
13. *Puesta a punto del Sistema Isoflux para el aislamiento y detección de Células TumORAles Circulantes (CTCs) en pacientes con Carcinoma Hepatocelular (CHC).* Agustín Robles Remacho, GENYO
14. *Reduction in COQ7 induces an increase in lifespan independently of the hepatic Coenzyme Q levels.* María Rodríguez Hidalgo, UGR
15. *Role of ARID1B genetic alterations in intellectual and developmental disabilities.* Maria Isabel Rodríguez Lara, GENYO

16. Identificación de una nueva variante asociada a otosclerosis familiar en el gen EYA3. Pablo Román-Naranjo Varela, FIBAO
17. Genetic stability of human pluripotent stem cells in different culture conditions. Raquel Sainz Urruela, GENYO
18. Searching for neutralizing nanobodies against Influenza viruses. Victoria Sánchez Martín, GENYO
19. Knowing the role of ADAMTS1 in Processes of Neovascularization in Glioblastoma. Orlando Serrano Garrido, GENYO
20. In vitro gene editing optimization of the GP9 locus using specific tcPNAs as a tool. Iris Simon-Saez, GENYO
21. Choline kinase  $\alpha 1$  inhibitor EB-3P deregulates phosphatidylcholine and cholesterol metabolism. Alberto Sola Leyva, UGR