



# PROGRAMA

**XLII Congreso de la Sociedad Española de Genética**

**SEG2021, del 14 al 18 junio**

## 14 de junio

### Sesión satélite: Escuela de Divulgadores de la Genética

Moderador: José Pío Beltrán

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| <b>15:00 - 15:10</b> | Presentación de los conferenciantes                                    |
| <b>15:10 - 15:35</b> | Isabel López Calderón – Confidencias de una divulgadora compulsiva     |
| <b>15:35 - 16:00</b> | Gemma Marfany - ¿Sirvo para divulgar?                                  |
| <b>16:00 - 16:25</b> | José Miguel Mulet – Cómo divulgar de temas impopulares                 |
| <b>16:40 - 17:05</b> | Lluís Montoliu – Diferentes maneras de divulgar la Genética            |
| <b>17:05 - 17:30</b> | Miguel Pita - ¿Por qué divulgo?  |
| <b>17:30 - 17:55</b> | Enrique Viguera – Encuentros con la Ciencia: laboratorio a la sociedad |
| <b>18:00 - 19:00</b> | Mesa redonda   |

## 15 de junio

**14:00 - 14:50** Sesión de pósteres: Dinámica de Cromosomas y Expresión Génica y Epigenética

### Bienvenida

**14:50 - 14:55** Rosario Linacero, Presidenta del Comité Organizador

**14:55 - 15:00** José Luis Micol, Presidente de la SEG

### Sesión 1: Dinámica de Cromosomas

#### Moderadora: Aurora Ruiz-Herrera

**15:00 - 15:30** Conferencia invitada: Ana Losada - Specialized functions of cohesin variant complexes carrying STAG1 or STAG2 in chromosome dynamics.

**15:30 - 16:00** Conferencia invitada: Darío G. Lupiáñez – Reorganization of 3D regulatory landscapes in disease and evolution.

**16:00 - 16:15** Comunicación oral: Marina Martínez García – GRAS-1 is a conserved novel regulator of early chromosome dynamics during meiosis in *C. elegans*.

**16:15 - 16:30** Comunicación oral: Ángeles Cuadrado Bermejo – Advances in understanding the behavior of the nucleosome-less chromosomes of dinoflagellates.

**16:30 - 16:45** "Flash Talks"

Lucía Álvarez González - The impact of chromosomal fusions on 3D genome folding in the germ line.

Nadia Fernández Jiménez - The plant-specific nucleoporin NUP136 is essential to ensure the obligatory crossover in *Arabidopsis* meiosis.

Lucía Gómez Gil - Contribution of chromosome rearrangements to the genomic plasticity of the fungal pathogen *Fusarium oxysporum*.

Alberto Jiménez Martín - The metazoan-like kinetochore assembly and disassembly cycle is conserved in yeast mitosis but masked by the rabl configuration.

J. Alberto Marchal Ortega - Increased mitotic cell death in MCPH1 depleted cells upon catalytic inhibition of TOPO II.

María Martín Peciña - B chromosomes of *eyepreponemis plorans* contain active protein-coding genes involved in cell division.

## Sesión 2: Expresión Génica y Epigenética

Moderador: Crisanto Gutiérrez

<b>17:00 - 17:30</b>	Conferencia invitada: María Gómez – Functional organization of the genome: intertwined links between DNA replication and transcription.
<b>17:30 - 18:00</b>	Conferencia invitada: Myriam Calonje - Unveiling the role of PcG-mediated histone modifications in regulating gene expression in <i>Arabidopsis</i> .
<b>18:00 - 18:15</b>	Comunicación oral: José Manuel Pérez Pérez - Dynamic hormone gradients and metabolic reprogramming link cell cycle regulation to wound-induced organ formation in plants.
<b>18:15 - 18:30</b>	Comunicación oral: Sara Fontalvia Ostio - Human prefoldin complex modulates co-transcriptional pre-mRNA splicing.
<b>18:30 - 18:45</b>	"Flash Talks"
	Laura Contreras - Translation modulates the response to Sorafenib in hepatocellular carcinoma.
	Irene Delgado Román - Early-stage replicative age contributes to proliferative heterogeneity in <i>Saccharomyces cerevisiae</i>
	Blanca Navarrete Ruiz de Clavijo - Elucidating the role of sirtuins in the control of virulence in <i>Ustilago maydis</i> .
	Ana Ramos Sáenz - Role of yeast pol5 in ribosome biogenesis.
	Ana Isabel Garrido-Godino - Rpb4 and Puf3 imprint and post-transcriptionally control the stability of a common set of mRNAs in yeast.
	Adelaida Hernaiz Martorrel - Detection of genome-wide methylation changes in the central nervous system of sheep naturally infected with scrapie.

## Conferencia inaugural

Moderadora: Monsterrat Elías-Arnanz. Vicepresidenta de la SEG

<b>19:00- 19:05</b>	Presentación del conferenciente
<b>19:05- 20:00</b>	Andrés Moya - Simbiosis: el encuentro entre procariotas y eucariotas

## 16 de junio

**14:00 - 15:00** Sesión de pósteres: Genética de Microorganismos y Mejora Genética

### Sesión 3: Genética de Microorganismos

Moderadora: Montserrat Elías-Arnanz

**15:00 - 15:30** Conferencia invitada: Iñigo Lasa – Noncontiguous operons: a new strategy for coordinating gene expression

**15:30 - 16:00** Conferencia invitada: Fernando Monje-Casas - Aging from the poles: asymmetric distribution of spindle microtubule organizing centers.

**16:00 - 16:15** Comunicación oral: Silvia Salas Pino - Reversible protein aggregation as cytoprotective mechanism against heat stress in Fission Yeast.

**16:15 - 16:30** Comunicación oral: José Tomás Cánovas Márquez - R3B2: The exclusive RNase III of Mucorales that has evolved to cut single-stranded RNA.

**16:30 - 16:45** "Flash Talks"

Andrea Bullones Bolaños - *Salmonella* modifies the host ubiquitinome.

Emilio Garrote Sánchez - From endosymbiont to chassis in synthetic biology: genomic engineering of *Bartonella quintana* by deleting non-essential regions.

Antonio Joaquín Monera Girona - Unmasking the identity of plasmanylethanolamine desaturase and the role of plasmalogens in photooxidative stress signaling.

Mª Dolores Pejenaute Ochoa - DOG9, a novel fungal protein involved in effectors secretion during plant infection.

Chantal Renau Mínguez - Exploring the genome of *Mycobacterium brumae*, a species of bacterium with therapeutic potential.

Manuel Sánchez López-Berges - Relevance of copper homeostasis in *Fusarium oxysporum* pathogenicity.

## Sesión 4: Mejora Genética

Moderador: Rafael Lozano

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| <b>17:00 - 17:30</b> | Conferencia invitada: Miguel Pérez Enciso – Aprendizaje automático y predicción genómica   |
| <b>17:30 - 18:00</b> | Conferencia invitada: Fernando Yuste-Lisbona - ¿Cómo mejorar la productividad a través de la regulación genética de la función meristemática?  |
| <b>18:00 - 18:15</b> | Comunicación oral: Cristina Menéndez Menéndez - Development of new grape cultivars better adapted to climate change.   |
| <b>18:15 - 18:30</b> | Comunicación oral: Miguel Ángel Toro Ibáñez - Genetic improvement programs in aquaculture.   |
| <b>18:30 - 18:45</b> | <b>“Flash Talks”</b><br><br>Andrea Arrones Olmo - GWAS analysis in the first eggplant magic population identifies strong associations for anthocyanin pigmentation.<br><br>José A. Campoy - Haplotype-resolved, chromosome-level, reference-free assembly enabled by high throughput single-cell sequencing of gamete genomes.<br><br>Matilde López Fernández - Exploring the genomic diversity of wheat landraces for new breeding challenges.<br><br>Clara Pons Puig - Atlas of phenotypic, genotypic and geographical diversity underlying variability of the traditional European tomato.<br><br>Mª Dolores Requena Ramírez - A GDSL esterase/lipase mediates lutein esterification in tritordeum being a strong candidate for the improvement of carotenoid stability in related cereals.<br><br>Marta Isabel Terry - Identification of genes involved in volatile synthesis in the Melon genome. |

## Sesión abierta: Genética y COVID

Moderador: José Luis Micol

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|----------------------|--|
| <b>19:00 - 19:05</b> | Presentación de los conferenciantes              |
| <b>19:05 - 19:45</b> | Conferencia invitada: Fernando González-Candelas |
| <b>19:45 - 20:25</b> | Conferencia invitada: Ángel Carracedo            |

## 17 de junio

**14:00 - 15:00** Sesión de pósteres: Genética de Poblaciones y Evolución y Genética Humana

### Sesión 5: Genética de Poblaciones y Evolución

Moderadora: Amparo Latorre

**15:00 - 15:30** Conferencia invitada: Josefa González - The genetic and molecular basis of environmental adaptation: a transposable element perspective.

**15:30 - 16:00** Conferencia invitada: Daniel Tamarit - Novel prokaryotic lineages fuel the quest for eukaryotic ancestry.

**16:00 - 16:15** Comunicación oral: Marta Álvarez-Presas - A new genomic approach to shed light on the mystery of the evolution of Bilateria.

**16:15 - 16:30** Comunicación oral: Cristina López Díaz - Experimental evolution reveals mechanisms of adaptation in the fungal pathogen *Fusarium oxysporum*.

**16:30 - 16:45** "Flash Talks"

Paula Escuer - The chromosome-scale assembly of *Dysdera silvatica* (Arachnida, Araneae) provides insight into the origin and evolution of chemoreceptor gene families in spiders.

José Luis Horreo - Global climatic changes explain long-term demography of the most-widely distributed terrestrial reptile (*Zootoca vivipara*).

Eugenio López Cortegano - Evolution of mutational properties in phylogenetically closely related species.

Sonia Olaechea Lázaro - Initial population structure and selection results on a new Cameroonian whole-exome sequencing dataset.

Sergio Ortega Del Campo - Twenty years of evolution and diversification of digitaria streak virus in *Digitaria setigera*.

Beatriz Sabater Muñoz - Fitness and mutational rate is affected by loss of groel-mutational buffering in highly bottlenecked *E. coli* populations.

## Conferencia de clausura

Moderador: José Luis Micol

**17:00 - 17:05** Presentación de la conferenciante

**17:05 - 18:00** María Blasco -Papel de los telómeros en el origen de las enfermedades

## Sesión 6: Genética Humana

Moderadora: Gemma Marfany

**18:00 - 18:30** Conferencia invitada: Noèlia Fernàndez-Castillo - Bringing light to autism, from rare mutations to spiking neurons.

**18:30 - 19:00** Conferencia invitada: Pablo Huertas - Defective DNA double strand break repair in Aicardi-Goutieres syndrome.

**19:00 - 19:15** Comunicación oral: Sara Veiga-Rúa - Validation of new ASD-associated genomic variations using hiPSCs and zebrafish models.

**19:15 - 19:30** Comunicación oral: Julián Cerón Madrigal - Mimicking human mutations in *Caenorhabditis elegans*.

**19:30 - 19:45** "Flash Talks"

Almudena Fernández López - Ratones editados genéticamente para investigar diversos tipos de albinismo.

Unai Illarregi Insausti - Detection of fusion genes by RNA-seq in pediatric acute lymphoblastic leukemia.

Núria Martínez-Gil - Regulation of WNT16 in bone involves upstream enhancers within CPED1.

Juan Antonio Navarro Langa - Erastin-induced ferroptosis enhances loss-of frataxin phenotypes in a Drosophila model of Friedreich Ataxia.

Mercedes M. Pérez Jiménez - A *Caenorhabditis elegans* model to study the role of sulfated steroid hormones in aging and aging-related diseases.

Susana Ruiz Ruiz - Microbiota across life in a healthy cohort.

## 18 de junio

### Sesión 7: Docencia de la Genética

Moderadora: Rosario Linacero

**15:00 – 16:00** Mesa Redonda

### Entrega de Premios

Moderadores: José Luis Micol y Rosario Linacero

**16:00 – 17:00** Entrega de los Premios Nacionales de Genética

**16:00 – 16:15** Intervención de Isabel Durán, en nombre de la Fundación Pryconsa

**16:15 – 16:20** Entrega de los premios

**16:20 – 17:00** Intervenciones de los premiados

**17:00 – 17:15** Entrega de los Premios a los Socios Distinguidos de la SEG

**17:15 – 17:30** Entrega de los premios a los mejores pósteres, comunicaciones orales y flash talks del Congreso

### Clausura del Congreso

**17:30 – 17:35** Clausura del Congreso

### Asamblea de la SEG

**17:35 – 18:30** Asamblea de la SEG