

## 2<sup>nd</sup> Pirepred Scientific Meeting

### The bench to bedside pathway: where are we now?

19 January 2018.

Salón de Actos, planta 10

Àrea General Hospital Universitari Vall d'Hebron

#### 9:00-9:20h. Welcome address

Javier Sancho (Pirepred Coordinator, BIFI, University of Zaragoza).

Xavier de la Cruz (Scientific organizer, ICREA-VHIR).

#### MORNING SESSIONS

##### SESSION 1.

#### THE BIOMEDICAL/CLINICAL APPROACH TO RARE DISEASES. AN OVERVIEW

*Chairmans:* Xavier de la Cruz (ICREA-VHIR) and Javier Sancho (BIFI, University of Zaragoza)

**9:20–10h.** “Triangles in rare diseases: a multidisciplinary approach to diagnosis, follow up/transition and therapeutic options”. Eduardo Tizzano (HUVH, VHIR).

**10:00–10:40h.** “Neonatal screening in France and new variants responsible for familial congenital hypothyroidism”. Frédérique Savagner / Isabelle Olivier (CHU Toulouse).

**10h40 - 11h10.** “Improving the newborn screening programs in Spain through the application of next generation sequencing”. Jairo Rodríguez (QGenomics, SL).

**11:10–11:25h.** “Philanthropy and Biomedical Research”. Alejandra Manau (Unidad de Mecenazgo, VHIR).

#### 11:25-11:55h. Coffee break

**11:55–12:25h.** “Genetic Diagnosis of Primary Immunodeficiencies Using Next Generation Sequencing Technologies: Targeted gene panels vs WES”. Roger Colobran (Hospital Universitari Vall d'Hebron).

**12h25 – 12h55.** “Effect of combined familial mutations on PAH activity in cell culture”. Marie-Lise Maddelein (IPBS, Toulouse).

**12:55–13:25h.** “Cost: an (un)expected link between basic research and clinical applications?”. Xavier de la Cruz (ICREA-VHIR).

#### AFTERNOON SESSIONS

**15:15-15:55h.** “The Sant Joan de Déu healthcare model for rare diseases: among medicine and biology”. Francesc Palau (Hospital Sant Joan de Déu).

##### SESSION 2.

#### A STUDY CASE: THE COMPONENTS OF TRANSLATION IN MITOCHONDRIAL DISEASE

*Chairman:* Juan Fernández-Recio (IBMB-CSIC, BSC)

**15:55–16:25h.** “Mitochondrial proteins at the atomic level: a basis for functional studies in health and disease”. Maria Solà (Maria de Maeztu Unit of Excellence, IBMB-CSIC).

**16:25-16:45 h.** “The structural landscape of damaging variants in mitochondrial proteins: consequences for pathogenicity prediction programs”. Elena Álvarez de la Campa (VHIR).

**16:45–17:15h.** “Enhancing dNTP synthesis as a therapeutic approach for treating POLG deficiency”. Yolanda Cámara (Laboratori de Patologia Neuromuscular i Mitochondrial, VHIR; CIBERER).

#### 17:15-17:45 h. Coffee break

##### SESSION 3.

#### UNVEILING THE MOLECULAR BASIS OF DISEASE WITH COMPUTATIONAL TOOLS

*Chairman:* Xavier de la Cruz (ICREA-VHIR)

**17:45–18:15h.** “Simulating point mutations in enzymes related to metabolic disorders”. Juan José Galano, (BIFI, University of Zaragoza).

**18:15–18:45h.** “Protein-protein docking can help the interpretation of genetic variants in rare diseases”. Juan Fernández-Recio (IBMB-CSIC, BSC).

**18:45-19h. Closing remarks.** Xavier de la Cruz (Scientific organizer, ICREA-VHIR).