

## Genetic interpretation of rare diseases: from mutation to patient

6-7 July 2017.

Salón de Actos

BioCruces. Hospital Universitario Cruces.

Plaza de Cruces 12, 48903. Barakaldo, Bizkaia (País Vasco)

July 6<sup>th</sup>

### 16:00-16:30h. Welcome address

M<sup>a</sup> Luz del Valle (Managing Director, BioCruces)  
Juana M<sup>a</sup> Sáenz (Delegada FEDER País Vasco)  
Javier Sancho (Pirepred Coordinator, BIFI, University of Zaragoza)  
Juan Fernández-Recio (Scientific organizer, IBMB-CSIC, Barcelona Supercomputing Center)

July 6<sup>th</sup>

#### SESSION 1:

### GENETIC BASIS OF RARE DISEASES: MUTATION, ANALYSIS AND PREDICTION

Chairman: Xavier de la Cruz (VHIR)

**16:30-17:30h.** *The genomic and biological landscape of rare and undiagnosed diseases.*  
Francesc Palau (Hospital Sant Joan de Deu).

**17:30-18:00h.** *From measuring mutation impact to diagnostics yield: the path of translational research.*  
Xavier de la Cruz (VHIR).

#### 18:00-18:30 h. Coffee break

**18:30-19:00h.** *Computerization of Newborn Screening: Process and Procedures.*  
Tomás A. Pérez Fernández (UPV-EHU)

**19:00-19:30h.** *Improving the newborn screening programs in Spain through the application of next generation sequencing.*  
Jairo Rodríguez (QGML).

**19:30-19:45.** *Reporting mutation impact: encoding complex information to simplify clinical decisions.*  
Elena Álvarez (VHIR).

**19:45-20:15.** *Genetic Bases of Rare Diabetes.*  
Luis Castaño. (BioCruces, Hospital Universitario Cruces, UPV/EHU, CIBERDEM, CIBERER).

July 7<sup>th</sup>

#### SESSION 2:

### INTERPRETING MUTATIONS AT MOLECULAR LEVEL: TOWARDS IMPROVED DIAGNOSIS AND THERAPEUTICS

Chairman: Olivier Cuvillier (IPBS)

**9:30-10:20h.** *Pharmacological chaperones as a novel therapeutic intervention line for congenital erythropoietic porphyria.*  
Oscar Millet (CIC-BioGUNE).

**10:20-10:40h.** *Neonatal screening in France and new variants responsible for familial congenital hypothyroidism.*  
Frédérique Savagner / Isabelle Olivier (CHU Toulouse).

**10:40-11:00h.** *Expanded newborn screening for metabolic disorders: experience in Aragon.*  
Inmaculada García (Hospital Miguel Servet).

**11:00-11:20h.** *Mutations in proteins: MD for diagnostics and chaperones for therapy.*  
Javier Sancho (BIFI. Univ. Zaragoza).

#### 11:20-12:00h. Coffee break

**12:00-12:20.** *Structural modeling of pathological mutations involved in protein interactions.*  
Juan Fernández-Recio (CSIC,BSC)

**12:20-12:45.** *In cellulo studies of new chemical drugs on PAH activity.*  
Marie-Lise Maddelein (IPBS).

**12:45-13:00.** *The performance of standard pathogenicity predictors in metabolic disease.*  
Josu Aguirre (VHIR).

**13:00-13:15.** *Strategies for MD simulation of reported mutations.*  
Juan José Galano (Univ. Zaragoza).

July 7<sup>th</sup>

### 13:15-13:30 h. Closing remarks

Juan Fernández-Recio (Scientific organizer, IBMB-CSIC, Barcelona Supercomputing Center)