

PurinesDX-European ETN Training Grant (No 766124)

Workshop:

***Drug Discovery and Development***

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*Medical School, Universidad Autónoma de Madrid,  
Madrid, Spain  
October 22-23, 2019*

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**Organisers:** Antonio G. García  
Luis Gandía Juan

**Collaborators:** Antonio Miguel García de Diego  
Cristóbal de los Ríos Salgado  
María Cano Abad  
Jesús Hernández Guijo

**Management support:** María Fagoaga Torija (Secretary, IFTH)

**Dissemination:** Communication Department (IFTH)

## AIM

This workshop is organized in the frame of European ETN Marie Skłodowska-Curie grant agreement No 766124. It addresses the condensed basic concepts implicit in drug discovery and development. This workshop is aimed at contributing to the comprehensive multidisciplinary scientific training of the 14 PhD students of the PurinesDX project.

Additionally, the workshop is open to other PhD students or postdocs of the “Universidad Autónoma de Madrid” and other universities and research centers.

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## PROGRAMME

The programme comprises most aspects of the life cycle of a medicine, from computational and synthetic drug design to clinical trials in patients.

## Tuesday October 22

- 9:00**            **Arrival and registration**
- 9:15**            **Introduction to the workshop**  
*Antonio G. García (FTH/UAM)*  
*Tobías Engel (Royal College of Surgeons in Ireland)*
- 9:30**            **Life cycle of a medicine**  
*Antonio G. García (FTH/UAM)*
- 10:00**          **Design and synthesis of multitarget neuroprotective compounds**  
*Rafael León (IFTH/UAM)*
- 10:30**          **Strategies for organic synthesis of new compounds for neuroprotection**  
*José Carlos Menéndez (Faculty of Pharmacy, UCM)*
- 11:00**          **Coffee break**
- 11:30**          **Basic aspects of computational microscopy**  
*Juan Felipe Franco-González (IFTH/UAM)*
- 12:00**          **General discussion**
- 12:30**          **Visit to Lab.8 of Medicinal Chemistry of IFTH**  
*Raquel López Arribas (IFTH/UAM)*
- 13:30**          **Lunch**
- 15:00**          **Target validation and compound screening**  
*Izaskun Buendía (IFTH/UAM)*
- 15:30**          **Proof-of-concept on animal models of disease**  
*Luis Gandía (IFTH/UAM)*
- 16:00**          **Preclinical development of a lead compound**  
*Pablo Avilés (Pharmamar, Spain)*
- 16:30**          **Practical demonstration of an IND application for clinical trials**  
*Pablo Avilés (Pharmamar, Spain)*
- 17:00**          **Genomic biomarkers for personalized medicine of major depressive disorder and autism spectrum disorder**  
*David Gurwitz (Sackler Faculty of Medicine, Tel-Aviv University, Israel)*
- 18:00**          **Free**

## Wednesday October 23

- 9:00**            **Practical demonstration of the exploration of animal behavior (Group 1 of PurinesDX PhD students)**  
*Alicia Muñoz Montero (IFTH/UAM)*
- Practical demonstration of calcium imaging (Group 2 of PurinesDX PhD students)**  
*Antonio Miguel García de Diego (IFTH/UAM)*
- 10:00**            **Practical demonstration of the exploration of animal behavior (Group2)**  
*Alicia Muñoz Montero (IFTH/UAM)*
- Practical demonstration of calcium imaging (Group 1)**  
*Antonio Miguel García de Diego (IFTH/UAM)*
- 11:00**            **Coffee break**
- 11:30**            **Ethics Committees and Regulatory Agencies**  
*Francisco Abad Santos (Hospital Universitario de La Princesa, IFTH/UAM)*
- 12:00**            **Phase I clinical trials**  
*Jesús Frías (Hospital Universitario de La Paz, UAM)*
- 12:30**            **Phases II/III clinical trials**  
*Francisco Abad Santos (Hospital Universitario de La Princesa, IFTH/UAM)*
- 13:00**            **FTH as a CRO: clinical trial management and coordination**  
*Arturo García de Diego (IFTH/UAM)*
- 13:30**            **Lunch**
- 15:00**            **Visit to a phase I clinical trial unit University Hospital La Paz (only PurinesDX PhD students)**  
*Alberto Borobia (Hospital Universitario de La Paz)*
- 16:30**            **Quality assurance in clinical trials: Good clinical practices (GCP)**  
*Eloy Ferreras (IFTH/UAM)*
- 17:00**            **A practical example of an inspection of a clinical trial**  
*Marcos Maroto (IFTH/UAM)*
- 17:30**            **Final discussion**
- 18:00**            **End of the workshop**