

## *International Course*

### Advances in Mycobacterium Research and Application

Fundação Oswaldo Cruz  
Av. Brasil 4365 – Manguinhos  
Leonidas Deane Auditorium  
November 27 – December 1, 2017

#### *November 27, 2017*

##### *Monday*

9h – Molecular basis of tuberculosis pathogenesis and new modalities for control of TB  
Patrick Brennan (Colorado State University)

10h30min – Coffee break

11h – T cell release of antimicrobial peptides  
Robert Modlin (University of California)

12h30min – Lunch

13h30min – New insights into leprosy pathogenesis learning from bacterial life style inside Schwann cells  
Maria Cristina Vidal Pessolani (IOC/Fiocruz)

15h – Pharmacogenetics and mycobacterial research  
Adalberto Rezende (IOC/Fiocruz)

#### *November 28, 2017*

##### *Tuesday*

9h - Induction of antimicrobial activity in mycobacteria infected macrophages  
Robert Modlin (University of California)

10h30min – Coffee break

11h - Challenges for laboratory diagnosis of leprosy  
Mariane Stefani (UFG)

12h30min – Lunch

14h – Talk with the international researchers – Student presentation:  
(In this section, four students will present their PhD projects and discuss with Dr. Robert Modlin and Dr. Patrick Brennan).

14h – 14h50min – Beatriz Junqueira  
14h50min – 15h40min – Fabrício Ramalho  
15h40min – 16h30min – Thabatta Leal  
16h30min – 17h20min – Karina Girardi

*November 29, 2017*  
*Wednesday*

9h - The molecular basis of infections caused by non-tuberculous mycobacteria (NTMs): lessons from patients with predisposing lung disease and glutaraldehyde – resistant NTMs in Brazil and elsewhere.

Patrick Brennan (Colorado State University)

10h30min – Coffee break

11h - Seq-Well: A portable, low-cost platform for single-cell sequencing of low-input samples.

Traves Hughes (MIT)

12h30min – Lunch

13h30min – Neutrophils and immunity: challenges and opportunities

Veronica Schmitz (IOC/Fiocruz)

15h – Molecular basis of leprosy neuropathy

Flávio Alves Lara (IOC/Fiocruz)

*November 30, 2017*  
*Thursday*

9h - Perspectives for the treatment of leprosy.

Roberta Olmo (IOC/Fiocruz)

10h30min – Coffee break

11h – New Technologies for Drug resistant and genotyping in TB

Philip Suffys (IOC/Fiocruz)

12h30min – Lunch

14h - Vaccines against tuberculosis

Ana Paula Kipnis (UFG)

*December 1, 2017*  
*Friday*

10h - Vaccine-Induced Innate Immune Responses and the Different Protective Outcome Against Tuberculosis

Ana Paula Kipnis (UFG)

12h – Lunch

13h30min - Non tuberculous mycobacteria: emergent diseases in Brazil  
Margareth Dalcolmo (ENSP/Fiocruz)

15h - Advances in *Mycobacterium* Research and Application  
Milton Ozório Moraes (IOC/Fiocruz)