



NYUAD Workshop on Parasitic Nematodes
NYU ABU DHABI SAADIYAT CAMPUS
Institute Conference Center, A6
January 4-6, 2018

Parasite Models and Development
Thursday January 4, 2018 | DAY 1

- 8:30 - 8:50 AM** **Registration & Coffee**
- 8:50 - 9:00 AM** **Welcoming Remarks by Program Organizers**
Kris Gunsalus, NYUNY & NYUAD
Oliver Hobert, Columbia University / HHMI
Erik Andersen, Northwestern University
James Lok, University of Pennsylvania
Hala Fahs, NYUAD
- 9:00 AM - 12:00 PM** **PANEL I: Parasitic Nematode Models**
Chair: Kris Gunsalus, NYU & NYUAD
- 9:00 - 9:30 AM** Host immune responses and parasite development in the real world
Mark Viney, University of Bristol, UK
- 9:30 - 10:00 AM** Programmed DNA elimination in nematodes
Richard Davis, University of Colorado Medical School
- 10:00 - 10:30 AM** Developing heterorhabditis bacteriophora as a model for nematode parasitism
John Hawdon, George Washington University
- 10:30 - 11:00 AM** **Break & Refreshments**
- 11:00 - 11:30 AM** A self-recognition system in nematodes
Ralf Sommer, Max Planck Institute Tuebingen

- 11:30 AM - 12:00 PM *Nippostrongylus brasiliensis*: a model for understanding cholinergic regulation of immunity
Murray Selkirk, Imperial College
- 12:00 - 2:00 PM Lunch
- 2:00 - 4:30 PM **PANEL II: Development, Behavior, and Host Interactions**
Chair: **Oliver Hobert**, Columbia / HHMI
- 2:00 - 2:30 PM Molecular and behavioral analysis of neuronal remodeling events in the *C. elegans* dauer
Oliver Hobert, Columbia / HHMI
- 2:30 - 3:00 PM Molecular and cellular dissection of a conserved hitchhiking behavior of the nematode
Junho Lee, Seoul National University
- 3:00 - 3:30 PM **Break & Refreshments**
- 3:30 - 4:00 PM The chemical language of worms: semantics and host interference
Frank Schroeder, Cornell / Boyce Thompson
- 4:00 - 4:30 PM Mucosal immunity and mitigation of helminth-induced tissue injury
De'Broski Herbert, University of Pennsylvania
- 4:45 - 5:45 PM **CAMPUS TOUR**
- 6:30 - 8:00 PM **PUBLIC PROGRAM** NYUAD Conference Center (A6)
A world without parasitic worms: why, when and how?
Tim Geary, McGill University

* Immediately followed by a public reception *
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Genomics and Therapeutics

Friday January 5, 2018 | DAY 2

- 8:30 - 9:00 AM Registration & Coffee
- 9:00 AM - 12:00 PM **PANEL III: Natural Variation and Genomics**
Chair: **Erik Andersen**, Northwestern University
- 9:00 - 9:30 AM Using *C. elegans* natural diversity to elucidate anthelmintic resistance mechanisms

Erik Andersen, Northwestern University

- 9:30 - 10:00 AM Genetic variation and the molecular epidemiology of anthelmintic resistance in *Haemonchus contortus* and related nematodes
John Gilleard, University of Calgary
- 10:00 - 10:30 AM Looking for nematode biology in tera-bases of sequence data
Makedonka Mitreva, Washington University
- 10:30 - 11:00 AM Break & Refreshments**
- 11:00 - 11:30 AM Population genetics, life histories and evolution in mammalian parasitic nematodes
Warwick Grant, La Trobe University
- 11:30 AM - 12:00 PM Identifying novelty in parasitic nematode genomes: horizontal genetic transfer, gene birth and gene duplication
Mark Blaxter, University of Edinburgh
- 12:00 - 2:00 PM Lunch**
- 2:00 - 4:30 PM PANEL IV: Chemical Genomics and Anthelmintics**
Chair: Hala Fahs, NYU Abu Dhabi
- 2:00 - 2:30 PM A non-toxic biological control agent as a cure for soil-transmitted helminths
Raffi Aroian, University of Massachusetts, Worcester
- 2:30 - 3:00 PM High throughput chemical genomics in *C. elegans* to screen for novel anthelmintics and their targets
Hala Fahs, NYU Abu Dhabi
- 3:00 - 3:30 PM Break & Refreshments**
- 3:30 - 4:00 PM *Bacillus thuringiensis*, a multipotential bacteria: applications to screen for new bioinsecticides and bionematicides
Mireille Kallassy, Saint-Joseph University, Beirut
- 4:00 - 4:30 PM Addressing the challenges of anti-helminthic drug development
James McKerrow, University of California at San Diego
- 4:30 - 6:30 PM Poster Session**
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Emerging Technologies

Saturday January 6, 2018 | DAY 3

9:00 - 9:30 AM

Coffee

9:30 AM - 12:00 PM

PANEL V: Emerging Technologies

Chair: **James Lok**, University of Pennsylvania

9:30 - 10:00 AM

Transgenesis and genome manipulation in *Strongyloides spp*

James Lok, University of Pennsylvania

10:00 - 10:30 AM

The role of 'omics' and other molecular tools in the quest to eliminate human filariasis

Sara Lustigman, NY Blood Center

10:30 - 11:00 AM

Break & Refreshments

11:00 - 11:30 AM

The nematode intestine: a key host interface

Doug Jasmer, Washington State University

11:30 AM - 12:00 PM

Measuring acute drug responses in *C. elegans*

Andrew Fraser, University of Toronto

12:00 - 2:00 PM

Lunch