

Neurobiology of Drug Addiction

Gordon Research Conference

Mechanistic and Translational Breakthroughs in Drug Addiction Research

Dates

July 16-21, 2017

Location

The Hong Kong University of Science and Technology
Hong Kong, China

Organizers

Chairs:

Eric J. Nestler & Yan Dong

Vice Chairs:

Yavin Shaham & Marina E. Wolf

Hong Kong Advisory Board:

Tony F. Chan, Kathryn Song Eng Cheah, Fanny M.C. Cheung, Arthur B. Ellis, Barry Halliwell, Nancy Ip, Jian Lu, Peter Mathieson, Alfonso Ngan, Paul Tam, Benjamin Wah, Henry Wong, Vivian Wing-Wah Yam, Kenneth Young & Albert Cheung-Hoi Yu

Application Deadline

Applications for this meeting must be submitted by **June 18, 2017**. Please apply early, as some meetings become oversubscribed (full) before this deadline. If the meeting is oversubscribed, it will be stated here. *Note:* Applications for oversubscribed meetings will only be considered by the Conference Chair if more seats become available due to cancellations.

Meeting Description

This is the inaugural GRC on the Neurobiology of Drug Addiction, which will include investigators from a wide range of countries to discuss the latest developments in addiction research in an open and interactive format. The talks, discussions, and posters will provide ample opportunities to introduce new findings about brain mechanisms underlying compulsive drug use and relapse, as well as the application of advanced technologies for studying and manipulating brain circuitry with optogenetics, *in vivo* imaging, molecular approaches, and new biosensors to study addiction-related questions in humans and animal models. The program will start with two keynote talks focused on recent findings in the field as well as previews of what the future holds for addiction research. The regular presentations and discussions are categorized into eight scientific disciplines: (1) Genetic, epigenetic, and subcellular mechanisms that regulate motivated behaviors related to drug addiction. (2) Memory-oriented alterations and manipulations that are involved in the development and treatment of drug addiction, such as learning, memory consolidation and reconsolidation, forgetting, and extinction learning. (3) Synaptic adaptations and manipulations in drug craving and drug seeking. (4) Brain circuits that are involved in the development and maintenance of drug-induced behaviors. (5) Novel animal models that are being crafted in addiction research. (6) Biomarkers that can be used to detect and monitor the addictive state. (7) New hypotheses of addiction that have been promoted by recent findings. (8) New techniques that promise still further advances in drug addiction research. Overall, this new GRC is designed to provide the field of drug addiction research a regular, international rendezvous to meet old and new friends, to nurture young investigators, to drive a diverse work force in the field, and to promote advances in the field toward new and definitive treatments of drug addiction.

Contributors



Preliminary Program

The topics and speakers for the conference sessions are displayed below (*italics* denote discussion leaders). The Conference Chair is currently developing their detailed program, which will include the complete meeting schedule, as well as the talk titles for all speakers. The detailed program will be available by **March 16, 2017**. Please check back for updates.

- **Keynote Session: The Future of Addiction Research**
(*Barbara Mason / Nora Volkow / Pier Vincenzo Piazza*)
- **Epigenetic and Cellular Mechanisms of Drug Addiction**
(*Chris Pierce / Paul Kenny / Courtney Miller / Dorit Ron / Yasmin Hurd*)
- **Learning Mechanisms of Drug Addiction**
(*Sheena Josselyn / Karen Ersche / Shannon Gourley / Joseph Cheer*)
- **Synaptic Mechanisms of Drug Addiction**
(*Julie Kauer / Yanhua Huang / Macdonald Christie / Christian Luscher*)
- **Circuitry of Drug Addiction**
(*Marina Picciotto / Gavan McNally / Peter Kalivas / Veronica Alvarez / Marisela Morales*)
- **Novel Animal Models of Drug Addiction and Relapse**
(*Aldo Badiani / Lin Lu / Serge Ahmed / Veronique Deroche-Gamonet*)
- **Biomarkers for Translational Research in Drug Addiction**
(*Lan Ma / Rita Goldstein / Rajita Sinha / Markus Heilig*)
- **Advances in Addiction Theory**
(*Harriet de Wit / George Koob / Terry Robinson / Barry Everitt*)
- **Cutting-Edge Basic and Clinical Addiction Research**
(*Taco De Vries / Bruce Hope / Abraham Zangen / Robert Malenka*)