

Cancer Nanotechnology

Gordon Research Conference

Multimodal Nano-Therapies Against Cancer

Dates

June 18-23, 2017

Location

Mount Snow
West Dover, VT

Organizers

Chair:

Alexander V. Kabanov

Vice Chair:

Ronit Satchi-Fainaro

Application Deadline

Applications for this meeting must be submitted by **May 21, 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

The 2017 Cancer Nanotechnology Gordon Research Conference (GRC) provides a unique forum where scientists at every stage of their career can share unpublished, innovative cancer research made possible by the use of nanotechnology. Held biennially since 2011, the 2017 Cancer Nanotechnology GRC is shaping up to be one of the most exciting and important meetings in the field. For the first time in the history of the Cancer Nanotechnology GRC a student-led Gordon Research Seminar (GRS) will also be held over the weekend preceding the 2017 Cancer Nanotechnology GRC on June 17-18, 2017 at the same location. Nanotechnology is a burgeoning field of study in science and engineering. Its application for cancer diagnosis, imaging, therapy, and prognosis has been a focal point of attention in biomedicine. Most nanomedicine studies are concentrated in cancer. Due to the presence of leaky vasculature and defective lymphatic drainage in solid tumors, nanoparticles selectively accumulate in the tumor via the mechanism of the enhanced permeability and retention (EPR) effect. Thus, nanoparticles are uniquely suitable for delivering diagnostic and/or imaging agents, chemo and gene drugs, and agents to enhance the activity of immunotherapy to the tumor. Nanoparticles also offer an amplification mechanism for bioanalytical detection and sensor devices for cancer markers. It is not surprising that the number of publications in cancer nanotechnology had increased rapidly to about 500-600 per year. The conference will bring together a lively group of exceptional scientists in order to: 1) share cutting-edge research in cancer nanotechnology by experts representing the whole spectrum of life sciences; 2) foster discussion, exchange of ideas, and promote collaborations and 3) enhance the training and development of young scientists and promote diversity. A high priority of the Cancer Nanotechnology GRC and GRS is to increase the diversity of participants. Towards this goal, funds are requested for travel and registration support of female and under-represented speakers.

Related Meeting



This GRC will be held in conjunction with the "**Cancer Nanotechnology**" Gordon Research Seminar (GRS). Those interested in attending both meetings must submit an application for the GRS in addition to an application for the GRC. Refer to the [associated GRS program page](#) for more information.

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 **February 18, 2017**. Please check back for updates.

- **Keynote Session: RNA Delivery and Therapeutics**
(*Alexander Kabanov / Chad Mirkin*)
- **Attacking Tumor Microenvironment**
(*Maria Vicent / Leaf Huang / Sangeeta Bhatia / Maria Jose Alonso*)
- **Early Diagnosis and Imaging**
(*Shawn Chen / Rachela Popovtzer / Shan Wang*)
- **Cancer Vaccines and Immunoengineering**
(*Darrell Irvine / Liangfang Zhang / Michael Goldberg / Melody Swartz*)
- **Natural Nanomaterials and Cell-Based Therapies**
(*Samir Mitragotri / Ennio Tasciotti / Molly Shoichet*)
- **Targeted, Responsive and Remotely Controlled Nanomedicines**
(*Tatiana Bronich / Kazunori Kataoka / Omid Farokhzad / Alberto Gabizon*)
- **Nanoinformatics, Rational Design, Modeling and Simulation**
(*Alexander Tropsha / Vittorio Cristini / Fred Prior*)
- **Pre-Clinical and Clinical Experience and Lessons Learned**
(*Rogério Gaspar / Kazuhiro Takahashi / Michelle Bradbury / Lawrence Mayer*)
- **Selected Poster Presentations**
(*Ronit Satchi-Fainaro*)