

# The Road from Nanomedicine to Precision Medicine

15<sup>th</sup> Annual International Conference ♦ September 25, 2017  
Rite Aid Lounge (2nd Floor), Gozzo Student Center  
Albany College of Pharmacy, 106 New Scotland Avenue, Albany, NY 12208

Free Conference ♦ No Registration ♦ \$250 Poster Awards ♦ Free Parking ♦ Free Lunch ♦ Raffles



## Conference Overview

This free international conference is the 15th annual conference in the series that explores recent advances in medicine, biotech and pharma. As in past years, the platinum sponsors are the Pharmaceutical Research Institute (Rensselaer, NY) and Bawa Biotech LLC (Ashburn, VA). This year's conference is focussed on innovative advances from nanomedicine to precision medicine. The conference will offer networking opportunities to physicians, scientists, engineers, lawyers, business professionals, technology transfer specialists, policy makers and venture capitalists from government, academia and industry. All PowerPoint presentations will be fast-paced and focussed, relying upon extensive color graphics and animations to reach the diverse audience. Last year's conference titled *Public Health and Emerging Microbial Threats* drew around 150 attendees.

## Terminology and Definitions

Although the terms "nanotechnology," "nanomedicine" and "precision medicine" are relatively new, the concepts have been a part of healthcare and biomedicine for many years.

Nanotechnology is the design, characterization, production, and application of structures, devices, and systems by controlled manipulation of size and shape at the nanometer scale that produces structures, devices, and systems with at least one novel/superior characteristic or property.

Nanomedicine is the application of nanotechnology in a healthcare setting to the prevention and treatment of human disease.

Precision nanomedicine is medical care designed to optimize efficiency or therapeutic benefit for groups of patients. According to the National Institutes of Health (NIH), precision medicine is "an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle for each person." This approach will allow doctors and researchers to predict more accurately which treatment and prevention strategies for a particular disease will work in which groups of people. It is in contrast to a "one-size-fits-all" approach, in which disease treatment and prevention strategies are developed for the average person, with less consideration for the differences between individuals.

## Conference Topics

Topics such as pharmaceutical nanotechnology, targeted drug delivery, theranostics, pharmacogenomics, high-throughput technologies and big data analytics/mining will be emphasized. A special workshop, sponsored by the American Bar Association, will highlight critical issues in patent law, FDA regulatory affairs, global legal trends, translational medicine, ethics and commercialization efforts. Selected potential topics are:

- Technologies, Tools and Methods of Precision Medicine
- Precision Medicine in Cardiovascular Diseases
- Population Genetics
- Implementation and Challenges
- Computational Pathology: Precision Diagnosis and Beyond
- Regulatory Challenges, Legal Issues and Ethical Considerations
- Data Mining in Pharmacogenomics
- Precision Cancer Medicine at the Bedside – The Provider Perspective
- Precision Oncology: Getting the Right Drug(s) to the Right Patient(s) at the Right Time(s)
- Global Commercialization of Companion Diagnostics: Value Capture in Personalized Medicine
- Establishing Guidelines for Use in Precision Medicine
- Big Data – The Devil’s in the Details

## Young Investigator Poster Awards

*“The education of young people in science is at least as important, maybe more so, than the research itself.”* – Dr. Glenn Seaborg  
Two “Young Scholar Awards” (sponsored by Dove Medical Press, UK) in the amount of \$250 each will be presented for best posters. Additionally, the “Best Poster in Biomedicine Award” (sponsored by *Biomedicine Journal*, Basel, Switzerland) in the amount of \$250 will be presented. The poster competition is open to all students (undergraduate, graduate, medical, law, pharmacy), medical fellows, and pre-/postdoctoral fellows. Posters may be brought directly to the conference site on September 25 (no prior abstract submission or registration required). The judging panel will be chaired by Dr. Thomas Webster, The Arthur W. Zafiropoulo Chair and Professor of Chemical Engineering at Northeastern University (Boston, MA).

## Travel, Lodging and Parking

Coffee breaks (sponsored by the *Biomedicine Journal*, Basel, Switzerland) and lunch (sponsored by the Pharmaceutical Research Institute, Rensselaer, NY) will be provided to all attendees at no cost. Free parking will be available adjacent to the conference venue. There is a very large selection of lodging available close by. The closest airport is in Albany, NY, a 20-minute taxi ride to the conference site. Travel funding is available for young investigators (sponsored by Bawa Biotech LLC, Ashburn, VA). Contact Dr. Bawa via email to apply for travel awards.

## Conference Proceedings - Book Project

All speakers/attendees are invited to contribute to volume 4 of the *Pan Stanford Handbook of Clinical Nanomedicine* series: S. A. Mousa and R. Bawa (editors), *The Road from Nanomedicine to Precision Medicine*, Pan Stanford Publishing, Singapore (2018).

## Organizing Committee

Brian Reese, PhD, JD, MBA, Choate, Hall & Stewart LLP (Boston, MA)  
Thomas J. Webster, PhD, Northeastern University (Boston, MA)  
Susan Gilbert, PhD, Rensselaer Polytechnic Institute (Troy, NY)  
Neil Gordon, BEng, MBA, Guanine, Inc. (Montreal, Canada)

## Conference Chairs

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