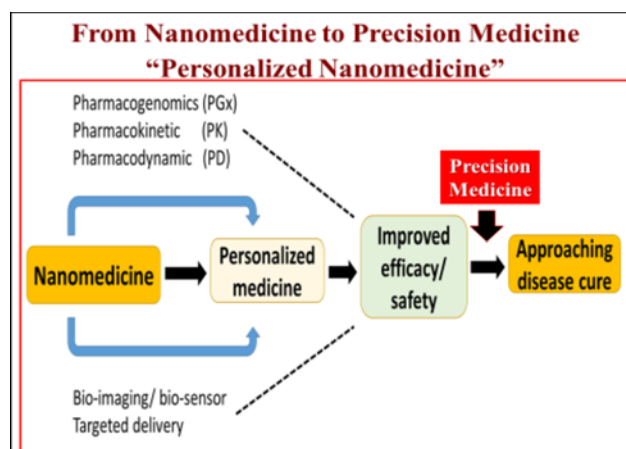


The Road from Nanomedicine to Precision Medicine

15th Annual International Conference
September 25, 2017 ♦ 9:00 AM - 4:45 PM

Rite Aid Lounge (2nd Floor), Gozzo Student Center
Albany College of Pharmacy, 106 New Scotland Avenue, Albany, NY

Three \$250 Poster Awards ♦ Lunch provided to attendees ♦ Free Parking



Conference Overview

This free international conference is the 15th annual conference in a series that explores recent advances in medicine, biotech and pharma. **NO REGISTRATION IS REQUIRED.** 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 focused 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. Last year’s conference, *Public Health and Emerging Microbial Threats*, drew over 100 attendees. **Conference Link: <https://pri-albany.org/>**

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, and manufacturing, application of structures, devices and systems controlled by 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 prevent and treat human disease.

According to the National Institutes of Health, **Precision Nanomedicine** 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 contrasts with 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 and commercialization efforts.

Young Scholar Awards for Posters

All awards will include a plaque or certificate. Two “Young Scholar Awards” (sponsored by Dove Medical Press, UK) in the amount of \$250 each will be presented for best posters by Dr. Thomas J. Webster, Editor-In-Chief of the *International Journal of Nanomedicine*. Additionally, the “Young Investigator Award” (sponsored by Bawa Biotech LLC, Ashburn, VA) will include signed copies of the 2-volume set, *Handbook of Clinical Nanomedicine* (<https://www.amazon.com/Handbook-Clinical-Nanomedicine-Two-Stanford/dp/9814316172>). The “Best Poster in Biomedicine Award” (sponsored by MDPI AG, Basel, Switzerland) in the amount of \$250 will be presented by Dr. Shaker Mousa, Editor-in-Chief of *Biomedicines*. 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.

Travel, Lodging and Parking

Coffee breaks (sponsored by *Biomedicines*, MDPI AG, 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 large selection of lodging available close by: <http://www.albany.org/hotels>. The closest airport is the Albany International Airport, a 20-minute taxi ride to the conference site. Travel funding for young investigators is sponsored by Bawa Biotech LLC (Ashburn, VA). Contact Dr. Bawa to apply for travel awards.

Call for Authors

All speakers and attendees are invited to contribute to the book, *The Road from Nanomedicine to Precision Medicine*, which is volume 4 in the *Handbook of Clinical Nanomedicine* series and due to be published in 2018: <http://www.panstanford.com/>. Interested parties should contact Dr. Bawa via email.

Organizing Committee

Brian Reese, PhD, JD, MBA, Choate, Hall & Stewart LLP (Boston, MA)
Thomas J. Webster, PhD, Northeastern University (Boston, MA)
Gerald F. Audette, York University (Toronto, Canada)

Susan Gilbert, PhD, Rensselaer Polytechnic Institute (Troy, NY)
Jagat R. Kanwar, PhD, Deakin University (Geelong, Australia)
Neil Gordon, BEng, MBA, Guanine, Inc. (Montreal, Canada)

Conference Chairs

Shaker A. Mousa, PhD, MBA
Chairman & Executive Vice President
The Pharmaceutical Research Institute | Rensselaer, NY
Vice Provost and Professor
Albany College of Pharmacy and Health Sciences | Albany, NY
518-694-7397 | shaker.mousa@acphs.edu

Raj Bawa, MS, PhD
Patent Agent | Bawa Biotech LLC | Ashburn, VA
Adjunct Professor | Rensselaer Polytechnic Institute | Troy, NY
Scientific Advisor | Teva Pharmaceutical Industries, Ltd. | Israel
703.582.1745 | bawa@bawabiotech.com



Networking and Coffee: 8:30 AM – 9:00 AM



Welcome: 9:00 AM

T. Gregory Dewey, PhD
President, Albany College of Pharmacy and Health Sciences (Albany, NY)

Plenary Keynote: 9:05 AM – 9:40 AM

The Transition from Nanomedicine to Precision Medicine

Thomas J. Webster, MS, PhD

The Arthur W. Zafiropoulo Chair and Professor of Chemical Engineering, Northeastern University (Boston, MA)

Plenary Keynote: 9:40 AM – 10:15 AM

Impact of Nanomedicine on the Future of Medicine: The Road Towards Precision Medicine/Case Studies

Shaker A. Mousa, PhD, MBA

Chairman & Executive Vice President, The Pharmaceutical Research Institute (Rensselaer, NY); Vice Provost and Professor, Albany College of Pharmacy and Health Sciences (Albany, NY)

Precision and Personalized Medicine: 10:15 AM – 11:45 AM

Moderator: Susan P. Gilbert, PhD, Professor and Head of Biological Sciences, Rensselaer Polytechnic Institute (Troy, NY)

Role of Genomics and Pharmacogenomics in Precision Medicine

Sridar V. Chittur, PhD, MBA

Research Associate Professor, School of Public Health and Department of Biomedical Sciences, SUNY at Albany (Albany, NY)

Can Quantitative Systems Pharmacology Models Deliver Precision Medicine?

Jim Gallo, PharmD, PhD

Professor and Chair, Department of Pharmaceutical Sciences, Albany College of Pharmacy and Health Sciences (Albany, NY)

Precision Nanomedicine for Treating Corneal Blindness

Rajiv R. Mohan, MSc, PhD

Professor of Ophthalmology and Molecular Medicine; Ruth M. Kraeuchi Missouri Endowed Chair Professor of Ophthalmology, School of Medicine, University of Missouri (Columbia, MO)

The Potential of Exosomes and MicroRNAs for Personalized Medicine in Cancer

Jagat R. Kanwar, PhD

Professor in Nanomedicine, Deakin University (Geelong, Australia)

Microfluidic-Enabled Manufacture of Nucleic Acid-based Lipid Nanoparticles: Modulating Gene Expression from Bench to Clinic

Peter S. Johnson, PhD

Director, Precision Nanosystems, Inc. (Vancouver, Canada)



Panel Discussion on Personalized Medicine (15 minutes)



Networking Lunch: Noon - 1 PM



**THE 2017
ANNUAL
POSTER
SESSION**

Raffles and Poster Viewing: 1 PM – 1:30 PM

American Bar Association (ABA) Workshop on Science and Technology Law: 1:30 PM – 2:45 PM

Moderator: Brian Reese, PhD, JD, MBA, Patent Attorney and Counsel, Choate, Hall & Stewart LLP (Boston, MA); Co-Chair, Nanotech Committee, American Bar Association (Chicago, IL)

Intellectual Property and Preparing for Diligence

Brian Reese, PhD, JD, MBA

Patent Attorney and Counsel, Choate, Hall & Stewart LLP (Boston, MA); Co-Chair, Nanotech Committee, ABA (Chicago, IL)

From Bench to Clinic: Translational Medicine in the Age of Personalized Medicine

Raj Bawa, MS, PhD

Patent Agent, Bawa Biotech LLC (Ashburn, VA); Adjunct Prof., Rensselaer (Troy, NY); Co-Chair, Nanotech Committee, ABA (Chicago, IL)

NanOEHS as an Enabler of Nanotech Commercialization: Health, Safety and Risk Assessment Along the Product Pipeline

Sara Brenner, MD, MPH

Associate Professor of Nanobioscience; Assistant Vice President for NanoHealth Initiatives, SUNY Polytechnic (Albany, NY)

Commercializing Ideas: What Science and Engineering University Research Personnel Need to Know

Shahrokh Falati, PhD, JD

Assistant Professor, Albany Law School (Albany, NY)



Q&A with Audience (15 minutes)



Coffee Break 2:45 PM – 3:00 PM

Young Scholar Award Ceremony: 3:00 PM – 3:15 PM

“Young Scholar Awards” (sponsored by Dove Medical Press, UK) in the amount of \$250 each will be presented for the two best posters by Dr. Thomas J. Webster, Editor-In-Chief of the *International Journal of Nanomedicine* (ISSN: 1178-2013).

The “Young Investigator Award” (sponsored by Bawa Biotech LLC, Ashburn, VA) will be presented by Dr. Gerald F. Audette, Co-Editor of the *Handbook of Clinical Nanomedicine*, Pan Stanford Publishing (ISBN: 978-9-814-31617-0).

The “Best Poster in Biomedicine Award” (sponsored by MDPI AG, Basel, Switzerland) in the amount of \$250 will be presented by Dr. Shaker A. Mousa, Editor-In-Chief of *Biomedicines* (ISSN: 2227-9059).

Precision and Personalized Medicine: 3:15 PM – 4:15 PM

Moderator: Neil Gordon, BEng, MBA, CEO, Guanine, Inc. (Montreal, Canada)

Lateral Flow Platform for Personalized Nanomedicine Diagnostics

Neil Gordon, BEng, MBA

CEO, Guanine, Inc. (Montreal, Canada)

Molecular Profiling of the Infant Airway Uncovers Novel Respiratory Disease Mechanisms

Thomas J. Mariani, PhD

Professor, Department of Pediatrics; Director, Pediatric Molecular and Personalized Medicine Program

University of Rochester (Rochester, NY)

Magnetic Resonance Spectroscopy Studies of Brain Metabolism: Recent Advances Translated into Precision Medicine

Alok Bhushan, PhD

Professor and Chair, Department of Pharmaceutical Sciences, Philadelphia University+Thomas Jefferson University (Philadelphia, PA)

James C.K. Lai, PhD

Professor of Biomedical and Pharmaceutical Sciences, Idaho State University College of Pharmacy (Pocatello, ID)

Big Data – The Devil’s in the Details

Isabelle Bichindaritz, PhD

Assistant Professor and Director of Biomedical and Health Informatics, Oswego State University of New York (Oswego, NY)



Conference Chairs’ Closing Remarks – 4:30 PM



Dinner (No Host, All Invited) – 6:00 PM

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Sponsors and Media Partners

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