Welcome Message

United Scientific Group (USG) cordially invites all the participants from around the world to attend Fifth International Conference on Nanotechnology “NANO Boston Conference” during April 22-24, 2019 in Boston, MA (NWC Boston).

USG successfully concluded three annual meetings on Nanotechnology; First International Conference on Nanotechnology “NanoWorld Conference” in Boston, MA, USA during April 4-6, 2016 (NWC-2016), Second Edition in Boston, MA, USA during April 3-5, 2017 (NWC-2017) and Third Edition in San Francisco, CA, USA during April 23-25, 2018 (NWC-2018). The fourth edition of NanoWorld Conference is scheduled in March 04-06, 2019 in Paris, Europe (NWC Paris). With the enthusiasm and prodigious success of three annual conferences, USG is proudly announcing the Fifth edition, NWC Boston.

NANO Boston Conference (NWC Boston) aims to provide high-quality current reports of scientific progress and best practices in the field of Nanotechnology through its invited presentations, submitted oral and poster abstracts. The conference is designed to encourage the exchange of ideas across a broad range of disciplines.

The primary goal of NWC Boston is to present state-of-the-art research, recent achievements and global trends in nanoscience and nanotechnology, also to promote cross-disciplinary interactions that can spur the development of this exciting research field. Special emphasis will be placed on energy materials and applications, nano-biotechnology, health and environmental safety of nanomaterials and specific techniques to develop nano-devices.

The conference will witness important presentations by the extensive range of eloquent speakers, policy makers and scientific leaders from around the world; who will assemble in Boston with the common objective of making this world a better place by providing the solution to the problems.

NWC Boston welcomes all participants, contributors, and speakers to the outstanding conference and welcomes to the City of Boston for the hospitality.

Organizing Committee

Mostafa El-Sayed
Georgia Institute of Technology, GA, USA

Stephen D. Miller
Northwestern University Medical School, IL, USA

Ahmed A. Busnaina
Northeastern University MA, USA

Hai-Feng (Frank) Ji
Drexel University PA, USA

Chuan-Jian Zhong
State University of New York at Binghamton NY, USA

Hari Shanker Sharma
Uppsala University Sweden

Caroline Sunyong Lee
Hanyang University South Korea

Ian C. Hsu
National Tsing Hua University, Taiwan
John Charles Polanyi  
*Nobel Laureate, 1986, University of Toronto, Canada*

**Title:** STILL PLENTY OF ROOM AT THE BOTTOM; Surface Aligned Reaction Suggests New Paths to Nanofabrication

*Dr. John Charles Polanyi,* (born Jan. 23, 1929, Berlin, Ger.), chemist and educator who, with Dudley R. Herschbach and Yuan T. Lee, received the Nobel Prize for Chemistry in 1986 for his contribution to the field of chemical-reaction dynamics. Born to an expatriate Hungarian family, Polanyi was reared in England and attended Manchester University (Ph.D., 1952; D.Sc., 1964). He accepted a research position with the National Research Council of Canada in 1952 and began teaching at the University of Toronto in 1956, accepting the title of university professor in 1974. Polanyi developed a technique that is known as infrared chemiluminescence based on the observation that molecules, when excited, emit infrared light. By means of spectroscopic analysis of the changes in emitted light that take place during a chemical reaction, he was able to trace the exchange of chemical bonds, thus helping to detail the disposal of excess energy that occurs during the process of chemical reaction.

Shaker A. Mousa  
*Albany College of Pharmacy and Health Sciences, NY, USA*

**Title:** The Impact of Nanobiotechnology on the Future of Medicine: The Road toward Precision Medicine

*Dr. Mousa* was appointed as an endowed, tenured Professor and Executive Vice President and Chairman of the Pharmaceutical Research Institute (PRI) in 2002. He also served as Vice Provost for Research at Albany College of Pharmacy and Health Sciences from 2010 – 2018. He holds Adjunct Professor appointments at Rensselaer Polytechnic Institute, SUNY Albany, SUNY Buffalo, and Temple University. He is a Visiting Professor of Bioethics at Albany Medical College and a Visiting Scholar at Johns Hopkins University. Previously, he was a Senior Scientist and Fellow at DuPont Pharmaceutical Company for 17 years where he served as a Working Group Chair of several drug discovery programs from 1993-2001.

Dr. Mousa holds more than 350 US and International Patents related to the discovery of novel anti-angiogenesis strategies, antithrombotics, anti-integrins, anti-cancer, and non-invasive diagnostic imaging approaches. He received his BSC from Alexandria University, College of Pharmacy & Pharmaceutical Sciences with distinction, ranking first in a class of more than 500 Pharmacy students. He was then appointed a member of the faculty, and he received his MSC in Biochemical Pharmacology. He received his PhD from Ohio State University, College of Medicine, in Columbus, OH, and did a Postdoctoral Fellowship at the University of Kentucky, Lexington. He has also received his MBA (Management) from Widener University in Chester, PA.
**STEPHEN D. MILLER**  
*Northwestern University Medical School, IL, USA*  

Dr. Miller is internationally known for his research on pathogenesis and regulation of autoimmune diseases and is co-inventor of the Cour toleragenic immune modifying particle technology platform. Dr. Miller is the Judy E. Gugenheim Research Professor of Microbiology-Immunology at Northwestern University Feinberg School of Medicine in Chicago. He is a consultant to a number of biotechnology and pharmaceutical companies, having assisted in the development of three new chemical entities from proof of concept through to Phase 3 testing. He has served or currently serves on grant review panels for the National Institute of Health, the National MS Society, the Immune Tolerance Network and the Juvenile Diabetes Research Foundation and on the editorial boards of multiple journals. He received his Ph.D. in 1975 from the Pennsylvania State University and did postdoctoral training at the University of Colorado Health Sciences Center before joining the faculty at Northwestern in 1981.

**AHMED A. BUSNAINA**  
*Northeastern University, MA, USA*  

Dr. Ahmed A. Busnaina, is the William Lincoln Smith Chair Professor and Director of NSF Nanoscale Science and Engineering Center for High-rate Nanomanufacturing and the NSF Center for Nano and Microcontamination Control at Northeastern University, Boston, MA. He specializes in Nanoscale defects removal, mitigation and characterization, chemical and particulate contamination in semiconductor processes and in the fabrication of micro and nanoscale structures. He authored more than 420 papers in journals, proceedings, and conferences. He serves on the editorial advisory board of the Semiconductor International Magazine, the Journal of Particulate Science and Technology and the Journal of Environmental Sciences. He is a fellow of the American Society of Mechanical Engineers, and the Adhesion Society, a Fulbright Senior Scholar in addition to numerous listings in Who's Who (in the World, in America, in science and engineering, etc.).

**Orlando Auciello**  
*University of Texas at Dallas, TX, USA*  

Dr. Auciello graduated with honors with M.S. (1973) and Ph.D (1976) degrees in Physics from the Physics Institute Dr. Balseiro (Universidad Nacional de Cuyo-Argentina). EE-University of Córdoba-Argentina (1970). Researcher-University of Toronto-Canada (1979-1984), Associate Professor-NCSU-USA (1985-1988), Distinguished Scientist-MCNC-USA (1988-1996), Distinguished Argonne Fellow (1996-2012)-Argonne National Laboratory-USA. Currently, Auciello is Distinguished Endowed Chair-University of Texas-Dallas. Auciello is directing basic and applied research programs on multifunctional oxide and novel ultrananocrystalline diamond (UNCD) thin films and application to industrial, high-tech, and medical devices. The UNCD film technology is commercialized for industrial products by Advanced Diamond Technologies, founded by Auciello and colleagues, (2003, profitable in 2014), and by Original Biomedical Implants (OBI-USA, 2013) and OBI-México (2016) for medical devices. Auciello has edited 20 books and published about 500 articles in several fields, holds 20 patents, He is associate editor of APL and Integrated Ferroelectrics, He was President of the Materials Research Society (2013) Auciello is Fellow of AAAS and MRS.
**Thomas J. Webster**

*Northeastern University, MA, USA*

Dr. Thomas J. Webster’s degrees are in chemical engineering from the University of Pittsburgh (B.S., 1995) and in biomedical engineering from Rensselaer Polytechnic Institute (M.S., 1997; Ph.D., 2000). He is currently the Department Chair and Professor of Chemical Engineering at Northeastern University in Boston. His research explores the use of nanotechnology in numerous applications. Specifically, his research addresses the design, synthesis, and evaluation of nanophase materials (that is, materials with fundamental length scales less than 100 nm) as more effective biomedical devices. He has completed extensive studies on the use of nanophase materials to regenerate tissues and has graduated/supervised over 109 visiting faculty, clinical fellows, post-doctoral students, and thesis completing B.S., M.S., and Ph.D. students. To date, his lab group has generated over 9 textbooks, 48 book chapters, 306 invited presentations, at least 403 peer-reviewed literature articles, at least 567 conference presentations, and 32 provisional or full patents. His H index is 86. Some of these patents led to the formation of 9 companies. His research on nanomedicine has received attention in recent media publications including MSNBC (October 10, 2005), NBC Nightly News (May 14, 2007), PBS DragonFly TV (covered across the US during the winter, 2008), and ABC Nightly News via the Ivanhoe Medical Breakthrough Segment (covered across the US during the winters of 2008 and separate research segments in 2010 and 2011). His work has been on display at the London and Boston Science Museums. He is the founding editor-in-chief of the International Journal of Nanomedicine (the first international journal in nanomedicine which in five years has achieved an impact factor of 4.97), serves on the editorial board of 15 additional journals, has helped to organize 22 conferences emphasizing nanotechnology in medicine, and has organized over 53 symposia at numerous conferences emphasizing biological interactions with nanomaterials. He also recently chaired the 2011 Annual Biomedical Engineering Society (BMES) Conference and has organized numerous symposia for AIChE, IEEE, MRS and ASME Annual Meetings. He has received numerous honors including, but not limited to: 2002, Biomedical Engineering Society Rita Schaffer Young Investigator Award; 2003, Outstanding Young Investigator Award Purdue University College of Engineering; 2005, American Association of Nanomedicine Young Investigator Award Finalist; 2005, Coulter Foundation Young Investigator Award; 2006, Fellow, American Association of Nanomedicine; 2010, Distinguished Lecturer in Nanomedicine, University of South Florida; 2011, Outstanding Leadership Award for the Biomedical Engineering Society (BMES); and Fellow, American Institute for Medical and Biological Engineering (AIMBE, representing the top 2% of all medical and biological engineers).

**Svetlana V. Boriskina**

*Massachusetts Institute of Technology, MA, USA*

Dr. Svetlana V. Boriskina is a research scientist in the Department of Mechanical Engineering at the Massachusetts Institute of Technology. She received her PhD degree in physics and mathematics from Kharkiv National University, Ukraine. She previously worked at the University of Nottingham, UK, and Boston University. Her research focuses on the development of smart fabrics for thermal comfort, new metamaterials to manipulate light in unusual ways, and solar-harvesting platforms to provide clean energy and fresh water to off-grid and disaster-stricken communities. Boriskina has authored over 110 publications, served as the Principal Investigator (PI) or co-PI on multiple U.S. Department of Defense, U.S. Department of Energy, and NATO-funded projects, holds many patents on sensor, energy-conversion, and desalination systems. Svetlana received a Joint Award of the International Commission for Optics and the A. Salam International Centre for Theoretical Physics, a NATO-UK Royal Society Fellowship, and a SUMMA Graduate Fellowship in Electromagnetics. She is a Director-at-Large at the Optical Society (OSA), and an associate editor of Optics Express and Journal of Optics.
Li Qiu Wang  
The University of Hong Kong, Hong Kong

Dr. L. Q. Wang received his PhD from University of Alberta (Canada) and is currently a full professor in the Department of Mechanical Engineering, the University of Hong Kong. He has over 30 years of university experience in thermal & power engineering, energy & environment, transport phenomena, materials, nanotechnology, biotechnology, and applied mathematics in Canada, China/Hong Kong, Singapore and the USA, and 2 years of industrial experience in technology and IP development/management/transfer as the Chief Scientist & the Global CTO. Prof. Wang has published 10 books/monographs and over 390 book chapters and technical articles including 17 in the Nature Communications, the PNAS, and the Physical Review Letters, many of which have been widely used by researchers all over the world. He has also filed 36 filed patents/SoftwareCopyrights. Prof. Wang has received various awards, including the recent TechConnect Global Innovation Award at the TechConnect World Innovation Conference & Expo (TCWI) 2018 (Anaheim, CA, USA; May 13-16, 2018), the Silver Medal at the 46th International Exhibition of Inventions of Geneva (Palexpo, Geneva, Swiss; April 11-15, 2018), the Innovation Award by the Optical Society (Singapore; July 25-28, 2017), and the First Outstanding Achievement Award of Hangzhou Oversea Scholars (Hangzhou Municipal Government, China; 2016). His research has been widely featured by local, national and international media.

Jae-Jin Shim  
Yeungnam University, S. Korea

Dr. Jae-Jin Shim received his BS degree from Seoul National University, Korea, in 1980, MS degree from Korea Advanced Institute of Science and Technology (KAIST) in 1982, and PhD degree from the University of Texas at Austin, USA, in 1990. He worked as a research scientist (1982-1986) and as a senior research scientist (1991-1994) at Korea Institute of Science and Technology (KIST). He has been a professor in Yeungnam University since 1994 and served as Vice-Dean of Engineering. He also served as the President of the Korean Society of Clean Technology and Vice President of the Korean Society of Engineering Education. He is now the Directors of the Institute of Clean Technology and the Clean Energy Priority Research Center supported by Ministry of Education of Korea. He has published more than 160 papers in reputed journals and served as the Chief Editor of Clean Technology and Editor of Korean Journal of Chemical Engineering.

His current research interests are synthesis and applications of graphene (or carbon nanotube)-based nanomaterials for supercapacitors, catalysts, and sensors; syntheses of polymers and organic materials using supercritical fluids and ionic liquids; living polymerization in supercritical fluids and ionic liquids; and clean technology.

To know more about NWC Boston’s featured speakers, log in to: http://nanoworldconference.com/
Mark your presence and meet your peers!

The conference helps you to..

1. Discover state-of-the-art research: Gain insights about the latest science and enhance your knowledge beyond your scientific field of interest with a robust scientific program, a new path that links and organizes selected sessions into cross-disciplinary themes.

2. Exceptional visibility for science: The conference draws both luminaries in their fields and up coming talent. The meeting will attract active participants including students, academicians, policy makers and other high level decision makers. With this varied kind of participation comes plenty of opportunities to seek out funding for new research and get quality feedback before publishing your research in a peer-reviewed journal.

3. Network with your peers: The meeting offers abundant opportunities to connect with your colleagues from various backgrounds and regions. Boost up your network with the peers at the opening ice breaker reception and connect with people who specialize in your field during daily networking breaks.

4. Give leads to your career: International Conference on NANO Boston Conference-2019 (NWC Boston-2019) can help you to achieve your career goal and increase your worth to potential employers.
**Important Dates**

- Conference Dates: **April 22-24, 2019**
- First Round Abstract Submission Ends: **August 14, 2018**
- Early Bird Registration Ends: **August 31, 2018**
- Second Round Abstract Submission Ends: **October 25, 2018**
- Mid Registration Ends: **December 11, 2018**
- Third Round Abstract Submission Ends: **February 05, 2019**
- Late Registration Ends: **February 28, 2019**
- Final Registration: **April 22, 2019**

**Special Features**

- Panel discussions
- Interactive poster session
- Interdisciplinary Agendas
- Alliances
- Guidance from accomplished individuals
- Networking Amplifications
- Emerging Researchers Forum (ERF) for Post Docs and PhDs
- Poster Competition for Students
- Student Fellowship

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### Registration

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**Academics**
- Oral Presentation: $450, $500, $600, $650
- Poster Presentation: $400, $550, $650, $700
- Delegate: $500, $650, $800, $900

**Industry/Company**
- Oral Presentation: $600, $750, $900, $999
- Poster Presentation: $550, $700, $850, $999
- Delegate: $650, $800, $950, $999

**Students: Post-Doc/Ph.D**
- Oral Presentation: $300, $450, $600, $750
- Poster Presentation: $250, $350, $450, $750
- Delegate: $200, $300, $400, $600

**Students: Masters/Graduates**
- Poster Presentation: $200, $250, $300, $500
- Delegate: $150, $200, $250, $500

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**Accommodation: April 21-23, 2019 (3 Nights)**

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* Subjected to change as per room availability at group discounted rates

**To register online:**

**Registration includes:**
- Access to main conference sessions, exhibits, poster sessions and round table discussions
- Conference material  • Tea / Coffee breaks, lunch during the conference days
- Meeting attendees reduced parking

**Accommodation includes:**
For delegates who are accommodated in Crowne Plaza Boston - Newton, Boston, MA, USA
- Complimentary Wi-Fi in the guest rooms  • Complimentary Full American breakfast
- Reduced parking rate per night
Support the event and take the advantage of getting connected with your target audience!

The United Scientific Group (USG) organizes interdisciplinary international conferences to showcase cutting-edge basic and applied research outcomes within life sciences including medicine and other diverse role of science and technology in society.

**NWC Boston** is three-day conference and will give attendees a chance to interact, learn, and engage with the business leaders and industry’s foremost researchers, while tackling the pressing issues that face the new generation. Participants will be top level representatives from sectors like prominent commercial; regulatory; scientific organizations and academic institutes.

USG offers several opportunities for sponsors to demonstrate their support towards science and its people by providing financial contributions to facilitate the presentations of noble research findings, hospitality and other necessary management for the scientific gathering.

## Sponsorship Opportunities

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Venue and Location:
Crowne Plaza Boston - Newton
320 Washington St, Newton, MA 02458, United States
Phone: +1 617 969 3010

Boston Attractions
♦ Freedom Trail
♦ Faneuil Hall
♦ Boston Common and Public Garden Swan Boats
♦ Beacon Hill
♦ Harvard Square and Harvard Art Museums
♦ Harvard Museums and the Glass Flowers
♦ Copley Square
♦ Fenway Park
♦ Museum of Fine Arts Boston
♦ Isabella Stewart Gardner Museum
♦ Boston Pops and Boston Symphony Orchestra
♦ Boston Harbor
♦ New England Aquarium
♦ Museum of Science
♦ John F. Kennedy Presidential Library and Museum