The **Future of Medicine**

*18 - 19 April 2018*

*Bahçeşehir University, Besiktase Gunay Kampusu, B Konferance Salonu*
“Future Medicine Will be the Medicine of Frequencies”

— Albert Einstein —
United Nations Sustainable Development Goal 3 seeks to ensure health and well-being for all, at every stage of life. The Goal addresses all major health priorities, including reproductive, maternal and child health; communicable, non-communicable and environmental diseases; universal health coverage; and access for all to safe, effective, quality and affordable medicines and vaccines. It also calls for more research and development, increased health financing, and strengthened capacity of all countries in health risk reduction and management.
Concept Note

The world of medicine is changing and evolving at an exponential rate. Recognizing the importance of preparing the future generation of doctors, the Engineering Medicine and Biology Society Club (EMBSC) created a prestigious and challenging the “Future of Medicine” Conference to be held on 18 - 19 April 2018 at Bahçeşehir University, Besiktase Gunay Campusu, B Konferance Salono.

This two-day Conference celebrates the convergence of technology, drug discoveries, population health and preventive medicine. The conference will further be taking engineering knowledge to transform the daily practice of medicine. To do this, a group of renowned National and International speakers, healthcare entrepreneurs, clinicians, and scientists dedicated to bringing technological innovation to medicine, will provide critical perspective. The Conference will also be paying attention to the exciting areas of genomic to treat diseases, the use of genetics for preventative medicine, and in drug discovery. Furthermore, the Conference will delve into the hot topics of Artificial Intelligence and the emerging Robotics in surgery and medicine as well as the role of Private sector in the “Future of Medicine”.

The overarching goal of the conference is to spearhead efforts to use newly emerging technologies knowledge to change medicine and make it far more precise and individualized.

The Conference, co-sponsored by Bahçeşehir University and the Royal Academy of Science International Trust, offers professionals and university students unparalleled insights into the future of the healthcare industry, as well as developing the leadership, networking, and collaborative skills necessary for them to become leaders in the field.

Participants will gain a unique, behind-the-scenes perspective on the dynamic world of 21\textsuperscript{st} century healthcare through guest lectures from cutting-edge medical and related fields professionals, and unparalleled
networking opportunities with the leaders and innovators in the international medical, scientific and engineering community.

After attending this Conference, participants should be able to:

- Demonstrate the unmet needs of medicine today with respect to more targeted, individualized prevention and treatments.
- Assess how changes and advances in technology are rapidly ushering in a whole array of new pathways for individualized medicine of the future.
- Emphasize how engineering will revolutionize the future of healthcare and medicine

**Target Audience**

- Healthcare Professionals and Students
- Scientists
- Engineers
- Computer scientists
- Professionals and Students of all disciplines interested in the future of medicine

All are invited to register and join clinicians, tech entrepreneurs, engineers, academics and trans-disciplinary health care innovators and leaders to discuss the newest thinking and best practices in the future of medicine, including the emerging, advanced technologies in delivering value-based care.

**Registration for the conference will be closed on 17th April 2018! Please send your RSVP to:** Bau.embsc.international@gmail.com
Programme

Conference Chair: HRH Princess Dr Nisreen El-Hashemite, BSc MSc MD PhD, the Executive Director of the Royal Academy of Science International Trust and Founder President of the World Women’s Health and Development Forum

Moderator and Respondent: Ms. Oksana Pyzik – University College London, UK

Day 1: Wednesday April 18

10:30 – 11:00: Opening Segment

Welcome Remarks: Ms. Nesrine Aldroubi, BAU Engineering Medicine and Biology Society Club (EMBSC)
Moderator Remarks: Ms. Oksana Pyzik – University College London, UK
Keynote Speakers: HRH Princess Dr Nisreen El-Hashemite, BSc MSc MD PhD

Dr. Pavel Ursu, World Health Organization Representative and Head of Turkey Office (tbc)
11:00 – 13:00: Tailoring Today's Medicine

Panellists:

Professor Hina Chaudhry, Professor of Medicine, Mount Sinai, New York – USA: "From Science Fiction to Science Fact: Regenerating the Heart"

Assoc. Prof. Dr. Serdar Durdagi, Bahçeşehir University School of Medicine, Department of Biophysics, Computational Biology and Molecular Simulations Laboratory: “Computer Aided Drug Design: Leaving No One Behind”.

Dr. Senem Simsek, University of California San Diego Medical School - Department of Pediatrics: "An intriguing journey from state of art human pluripotent stem cell technology to remodelling of pancreatic cystic fibrosis, cystic fibrosis related diabetes and retina problems, drug discovery, future tissue and organ transplantations"

Kathleen O'Hara - MA LPC, UK: “Dealing with Every Process of Life for Tailoring Today’s Medicine” (tbc)

Interventions followed by Open Discussion

13:00 – 14:00: Lunch Break

14:00 – 17:00: Engineering For Medicine

Panellists:

Prof. Dr. Alper Kiraz, Associate Dean, College of Sciences, Koç University - Turkey: “Developing Novel Applications in Biochemical Sensing, Energy Photonics and Biomedical Instrumentation”.

Professor Yaling Liu, Department of Mechanical Engineering and Mechanics Department of Bioengineering, Lehigh University - USA: “Biomimetic Microfluidic Chips for In Situ Tumor Culturing, Drug Evaluation, and Circulating Tumor Cell Capture”
Prof. Dr. Eray Caliskan, Medical Park, Istanbul – Turkey: “Preimplantation Genetic Diagnosis: the Reality of Engineering Embryos”

Eng. Mouaz Alali, Regional Sales Manager, Siemens AG: “Shaping the Future of Healthcare”.

Interventions followed by Open Discussion

Thursday April 19th

10:30 – 13:00: Robotics in Medicine

Panellists:

Prof. Dr. Ali Razan Ercocen, Department of Plastic Reconstructive and Aesthetic Surgery, Bayındır HealthCare Group Hospitals, Istanbul - Turkey: 'Tissue engineering and prefabrication of non-physiologically perfused composite flaps by non-conventional vascular induction and comparison with conventional vascular induction”

Prof. Dr. Ugur Haklar, Liv Hospital Ortopedi ve Travmatoloji, Turkey: “Robotic Knee Arthroplasty”

Assc. Prof. Dr. Meric KARAPINAR KAZANDAG, Department of Endodontics, Faculty of Dentistry, Yeditepe University - Turkey: “Current and future concepts for technology-guided dentistry”

Prof. Dr. Murat Aksoy Kimdir, Liv Hospital, Turkey: “Evolutionary Changes in Vascular Surgery in the Future”

Interventions followed by Open Discussion

13:00 – 14:00: Lunch break
14:00 – 16:00: Investing in Future’s Medicine

Mr. Nusret Comert, Chairman of the Board and the Principle Shareholder of Damnus Energy & Investment Inc.
Mr. Claudio Tomasi, United Nations Development Program (UNDP) Turkey Country Director (tbc)
Mr. Karl Kulessa, UNFPA Representative, Turkey (tbc)
Prof. Safak Karacay, Liv Hospital, Turkey

Interventions:

Prof. Dr. Nuri Onat Demirci, Medical Park Goztape, Turkey
Miss Talya Ozdemir - Ici Schools

Open Discussion

16.00 – 17.00: Closing Session

Summary and Remarks: Ms. Oksana Pyzik

Closing Remarks: Ms. Nesrin Aldroubi, Mr. Mohamed Shkokani, Faruk sallak, Hayder Abdullah, and Mohammed Ismail - BAU Engineering Medicine and Biology Society Club (EMBSC)
"Medicine is not only a science; it is also an art. It does not consist of compounding pills and plasters; it deals with the very processes of life, which must be understood before they may be guided.....

Medicine rests upon four pillars - philosophy, astronomy, alchemy, and ethics."

— Paracelsus, Swiss Scientist (1493 - 1541) —
The International Committee of Engineering Medicine and Biological Sciences Club was founded in 2016 to bridge the world and to avoid the Language barrier faced by International Students and young professionals whether studying or receiving training in Turkey.

Since 2017, the International Committee organized 3 major events at Bahcesehir university titled: “Your Destination”, “Human Welfare” and “Integration of Engineering in Medicine”. The quality of knowledge and the level of speakers presented in the conferences, attracted large number of participants of different backgrounds and Institutions. The Conferences were marked by the large number of participants, and the quality of mentoring and networking skills provided.

The main objective of The International Committee of the “EMBS” Club is to contribute to the quality of education, research and innovation. Further, to increase awareness on the role of Youth and young professionals on Global issues related to health and well-being as well as to sustainable development programs.

Royal Academy of Science International Trust (RASIT), is an International Non-Governmental Organization dedicated to promoting excellence in education and science, and plays an influential role in international Science, Technology and Innovation policies for sustainable development.

For more than 50 years, RASIT has been an organization with an infinite vision into a Sustainable Future, and will continue this tradition of measureless services for the benefit of mankind.