Technomedicum

Technomedicum of Tallinn University of Technology (TM), a research, educational and development institution, was set up in 2006 to create an innovative and interdisciplinary research unit combining efforts of Tallinn University of Technology, hospitals and other healthcare organizations. Fostering cooperation with European universities and medical institutions, at the same time, TM is developing its educational and research environment and enhancing the quality of service and work environment. The mission is to unite medical and technology knowhow for the benefit of human health and wellbeing and to pool technology that conforms to best European standards.

R&D activities of TM cover medicine, technology and biomedicine, degree studies related to medicine, biomedicine and technology, relevant continuing education courses as well as teaching of medical disciplines organized by other TUT academic units on the master and doctoral level. In addition to TUT academic and research staff, doctor-teachers and doctor-researchers from several hospitals participate in TM academic and research activities. Representatives of 3 biggest Estonian hospitals - Tartu University Hospital, North Estonian Regional Hospital and East Tallinn Central Hospital are members of the board of TM.

TM is a part of Centre for Integrated Electronic Systems and Biomedical Engineering – CEBE, which is Estonian centre of excellence in research, financed from the EU Structural Funds for the years 2008-2015.

The structure of TM includes Department of Biomedical Engineering, Department of Clinical Medicine and Centre of Cardiology.

Research directions of TM are as follows:

- Biological interaction of the EMF
- New laser diagnostic methods in medicine
- Impact of environmental factors to health
- Efficiency of rehabilitation treatment
- New methods for diagnosis of cardiovascular diseases
- Optical methods for clinical monitoring
- Oncology and hematology - diagnostics of cancer oncobiology and breast cancer
- pulmonology and allergology
- vascular and methabolic diseases
- eHealth
- development of non-invasive parameters to identify patients endangered by sudden cardiac death in the case of different heart diseases
- parameters characterizing time and spatial variability in the repolarization phase of heart ventricles, regarding to gender differences of women patients

http://www.tm.ttu.ee/