



- At BMD Lab, we explore electro-mechanical/chemical sensor & actuator device designs, materials, and microfabrication processes to create bio-integrated microdevices -wearables & implantables- as next-generation medical devices.
- The lab is composed of researchers with various backgrounds and technical interests. This creates a multidisciplinary research environment enabling a broad research portfolio.

Open position for Postdocs (medical imaging/ultrasonics)

Cardiovascular diseases (CVDs) are the leading cause of death globally, with 18 million deaths annually. Recently supported by the European Research Council (ERC), 2ND-CHANCE project aims to provide novel solutions for management and elimination of major drawbacks of CVDs. The 2ND-CHANCE implant system consists of sensors and wireless communication system for continuous monitoring of CVDs.

A Postdoctoral research fellowship for wireless communication system development is available in the Bio-integrated Microdevices Laboratory.

Qualifications:

- PhD in Biomedical, Physics, Electrical, Mechanical or relevant field.
- Strong Transducer Engineering fundamentals (acoustics, beamforming, materials, phased-arrays, process development, thermal design and modeling, etc.)
- Industry or academic experience in diagnostic ultrasound or related field (3+ years)
- Fundamental knowledge of basic ultrasound modes: B-mode, Doppler Color Flow Imaging.
- Strong modeling skills using Python, Matlab, Comsol, Ansys or similar
- Advanced Mathematical, Signal and Image Processing skills
- Direct experience with MEMS ultrasound technology involving acoustic design, process development, thermal modeling and beamforming are strong pluses.

Responsibilities:

- Developing new or existing ultrasound modes
- Design & development of transducer module architecture leading to proof-of-concept and initial prototype hardware
- Working closely with clinical team to optimize your application

Compensation: A highly competitive salary depending on experience plus accommodation and meal benefits.

Contact Information

Interested candidates, please contact to Dr. Levent Beker (lbeker@ku.edu.tr) along with a CV and a cover letter describing any previous experience, major publications, and contact information for two/three letters of reference.