

## Technological Directory - Graduate School and Faculty of Engineering (2020)

### Department of Biomedical Engineering

Discipline	Field	Expertise	Keyword 1	Keyword 2	Keyword 3	Open to consultations on	Lab	Researcher	Related researchers
Medicine and dentistry, pharmacy	Basic medicine	General medical chemistry	Biomolecular medicine	Pain	Molecular, cellular, and neural physiology	Measurement and visualization of pain control, synapse relays, and cellular informatics	Molecular and functional biology Lab	Emiko ASHITAKA, Professor	
Agriculture	Agricultural Chemistry	Applied Microbiology, Applied Biochemistry	Extremophile	Extremozyme	Bioreactor Biosensor	Application of extremophiles and extremozymes. Development of bioreactors, and biosensors. Functional analysis of D-amino acids	Food microbiology Lab	Toshihisa OHSHIMA, Professor	
Medicine and dentistry, pharmacy	Clinical Internal Medicine	Hematology	Thrombosis and Hemostasis	Functional Foods	Immune Regulation	Translational research and development of novel functional foods	Functional Foods Lab	Ko-ichi KAWAHARA Professor	
General	Human medical engineering	Biomedical engineering, biomaterials science	Medical materials	Cell and tissue engineering	Tissue engineering material	Regeneration of biological tissue (cardiovascular, vascular, corneal, muscular and dermatological), biocompatibility, implantable materials, cell seeding, bioreactors	Biomaterials Lab	Toshiya FUJISATO, Professor	
Medicine	Physiology	Recording and imaging of biological responses	Thermal physiology	Homeostasis	Environmental adaption	Biomolecular detection, quantification, and microscopic imaging, Recording and analysis of biological reactions	Physiology Lab	Kiyoshi MATSUMURA, Professor	
Engineering	Electrical and electronic engineering	Organic electronics Organic iontronics	Conducting polymers	Artificial muscle	Organic electronics devices	Conducting polymer based artificial muscles, organic electronics device, biosensor	Bioelectronics Lab	Keiichi KANETO Professor	
Engineering	Electrical and electronic engineering	Electron/electric material engineering	Liquid crystal materials	Cultured muscle	Electrical and optic characteristics	Evaluation of electrical and optic characteristics of liquid crystal and other functional materials, Quantitative evaluation of cardiographical, electromyographical and other physioelectrical phenomena	Bioelectronics Lab	Sadahito UTO, Professor	
General	Human medical engineering	Biomedical engineering, biomaterials science	Medical materials	Macromolecular Chemistry	Nano-scaffold	Fabrication and evaluation of polymer scaffolds especially for human tissue engineering	Nanomedicine Lab	Hiroyuki TONAMI, Associate Professor	
Agriculture	Agricultural Chemistry	Applied Microbiology	Microbial engineering	Enzyme engineering	Analysis of D-amino acids	Screening and cultivation of microorganisms, Purification and functional analysis of enzymes, Functional analysis of D-amino acids	Food microbiology Lab	Taketo OHMORI, Associate Professor	

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Engineering	Biochemical Engineering	Bioprocess Engineering	Cell culture	Bioreactor	Tissue engineering	Scale up of cell culture process, Biomimetic culture mediated cell assay system, Evaluation and regulation of dynamic cell behavior inside a tissue structure.	Bioprocess Engineering Lab	Eiji NAGAMORI, Associate Professor	
Engineering	Medical Engineering	Chemical and Tissue Engineering	Bioartificial organs	Cell culture	Blood purification	Bioartificial live using the iPS cells, Evaluation of the dialyzer as the artificial kidney, Bioartificial peritoneal using cell sheets engineering	Bioartificial Organs Lab	Ryoichi SAKIYAMA, Associate Professor	
Engineering	Human medical engineering	Biomedical and tissue engineering	Tissue engineering materials	Medical materials	Cell culture	Regeneration of biological tissue (cardiovalvular, vascular, corneal), implantable materials	Tissue Medical Engineering Lab	Seichi FUNAMOTO Associate Professor	