**Postdoctoral Research Positions**

Multiple postdoctoral positions are available at the Terasaki Institute for Biomedical Innovation (TIBI). The TIBI is developing personalized solutions that utilize micro- and nanoscale technologies to enable a range of therapies for organ failure, cardiovascular disease, and cancer. To enable this vision, the institute works closely with clinicians including interventional radiologists, cardiologists, and surgeons. Headed by Dr. Khademhosseini, the institute has numerous projects including the use of patient-derived cells to engineer artificial tissues and cell-based therapies; organ-on-a-chip systems that aim to mimic the human physiology and pathology and enable patient-specific evaluation of drug candidates; and novel biomaterials as sealants and adhesives.

Postdoctoral Researcher Position: **Biomaterials and Tissue Engineering**

For this particular job opening, we are looking for a highly motivated postdoctoral fellow who can work on synthesis and engineering of functional biomaterials as sealants and tissue engineered scaffolds. This work is funded by the NIH and has the potential to solve major issues in regeneration of tissues or repair of defects in a minimally invasive manner.

Specific Qualifications:

- Previous experience with experimental design, microscopic imaging, and data analysis are required.

Postdoctoral Researcher Position: **Microfluidics and Organs on a Chip**

For this particular job opening, we are looking for a highly motivated postdoctoral fellow who can work in a highly interdisciplinary environment and drive scientific and technical innovation with other members of the group, as well as with the Terasaki research community. This outstanding candidate will apply state-of-the-art microfluidics, organs on a chip, sensors, and tissue engineering techniques to create tissue models and study drug interactions.

Specific Qualifications:

- Experience in hydrogel synthesis and characterization, cell culture, and animal experiments is desired and a considerable plus.

Preferred:

- Previous experience with mammalian cells and microscopic imaging are desired but not required.

Postdoctoral Researcher Position: **Flexible Electronics and Microfluidics**

For this particular job opening, we are looking for a highly motivated postdoctoral fellow to apply state-of-the-art microfluidics, flexible electronics and hydrogels to develop novel biomedical devices.

Specific Qualifications:

- Experience in microfabrication, microfluidics, flexible electronics, biomaterials, and wearable devices is desired and a considerable plus.
Postdoctoral Researcher Position: **Cancer and Immunotherapy**
For this particular job opening, we are looking for a highly motivated postdoctoral fellow who can work on tumor cell biology, 3D tumoroid culture, and immunotherapy (virotherapy, CAR-T, immune checkpoint inhibitor). The applicants will be joined in the project understanding cancer development using tumor-on-a-chip as well as anti-cancer immuno-therapeutics.

Specific Qualifications:

- Previous experience with cancer cell cultures and microscopic imaging, flow cytometry, gene and protein expression analysis are desired.
- Experience in animal experiments (tumor implantation, peripheral blood collection, IV injection) is desired and a considerable plus.
- Previous experience in anti-cancer immuno-therapeutic development (ex, oncolytic virotherapy, CAR-T, immune checkpoint inhibitors) is desired.
- Previous experience in analysis techniques including ELISPOT, histology, pathology, gene profiling, the western blot is desired and a considerable plus.

**Terasaki Fellow**

The Institute seeks to recruit, flourish, and retain exceptional researchers with outstanding talent and technical skills as Terasaki Fellows. The Fellows will help advance the Institute’s vision and output in biomedical innovation. The Fellowships are intended for brilliant applicants with outstanding expertise and achievements who received their PhD or MD degree within the last five years.

We are primarily seeking candidates in the areas below, but exceptional candidates in other areas will also be considered:

- Immune Engineering
- Synthetic Biology
- Biosensing and Organ-on-chip Devices
- Biomaterials
- Stem Cell Engineering

**Job responsibilities for all positions:**

- Conduct research in the field of tissue engineering and biomaterials. Propose creative and novel solutions using biomaterials and bioengineering approaches to problems in regenerative medicine.
- Become well versed in current literature, come up with novel solutions to current biomedical problems, design experimental plans, carry out research and write papers. May also assist in grant writing.
- Conduct research and develop devices for drug delivery, cell delivery, and drug capture.
- Apply minimally invasive and microengineered technologies to create solutions to biomedical problems.
• Collect and analyze data, including conducting literature surveys.
• Engage in dissemination of the results of the research in the regular group meetings, scientific conferences and journal publications.
• Come up with ideas for proposals and write and submit fellowship applications.
• Manage a subgroup of researchers including trainees, junior fellows and visiting students in the fields of tissue engineering and biomaterials.
• Engage in appropriate training of lab personnel and lab maintenance, including equipment maintenance and ordering of supplies as required by principal investigator.
• Work closely with other members of the institute to conduct and carry out biomedical engineering and biomaterials research, share research ideas, and come up with solutions for scientific problems.
• Perform any other duties as assigned, such as attending conferences and meetings and presenting research results.

Job requirements for all positions:
• Ph.D. in biomedical engineering, electrical/mechanical engineering, or related disciplines.
• A strong record of publications
• The fellow is expected to work in a highly interdisciplinary environment and drive scientific and technical innovation with other members of the group, as well as with the Terasaki research community
• Outstanding communication skills including both oral and written presentation are required

Applications – Please include the following documents:
• Research statement, including a brief summary of previous research experiences, along with motivation and specific fit for the mission of the Institute. Suggested length: 1-3 pages
• Curriculum Vitae
• Names and contact information for a minimum of three references
• The position you are interested in

Apply at https://external.terasaki.org/careers

Terasaki Institute is committed to a diverse environment and is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, sex, sexual orientation, gender identity, age, status as a protected veteran, or status as a qualified individual with disability.