



AGA KHAN FOUNDATION
CANADA

Stem Cell Scientist (Regenerative Medicine and Organoid development)

(In Country Placement)

Host Agency: Aga Khan University, Pakistan

Address: Aga Khan University, Stadium Road,

P.O. Box 3500 Zip code 74800,

Karachi, Pakistan

Duration: 3 Months

About AKF Canada

Aga Khan Foundation Canada (AKFC) is a leading global development organization and registered charity working to tackle the root causes of poverty. Since 1980, we have helped create strong community institutions that support sustainable, locally driven initiatives to improve the lives of millions of people in Africa, Asia, and the Middle East. By combining local knowledge with global best practices, we strive to bring about transformative and long-lasting improvements to quality of life. In Canada, AKFC mobilizes funding and expertise, and promotes awareness of global issues. In all of our work, advancing gender equality, inclusion and pluralism are key objectives and approaches.

Working alongside the agencies of the Aga Khan Development Network and through partnerships with local communities, civil society, and business as well as governments and international aid agencies, we are building a future where we all thrive together.

About Aga Khan University, Pakistan

[The Aga Khan University \(AKU\)](#) is a pioneering institution of higher education whose mission is to improve the quality of life in the developing world and beyond, through world-class teaching, research and healthcare delivery. AKU educates students for local and global leadership from campuses and teaching hospitals in six countries, primarily in Asia and Africa. It generates new knowledge to solve problems that affect millions of people, especially the most vulnerable. The University is a private, not-for-profit institution and part of the Aga Khan Development Network.

About The Centre for regenerative Medicine and Stem Cell Research

The Centre for Regenerative Medicine and Stem Cell Research (CRM) is one of the most ambitious and mission-critical initiatives at AKU. Established in 2016, CRM is now part of the Medical College, based at the Aga Khan University campus in Pakistan. This integration with the larger research and clinical network of the University has improved access to, and engagement with the Medical College's broader intellectual network and multidisciplinary teams including



clinicians, other basic scientists, and students. This has enabled bridging stem cell and regenerative therapies in non-communicable and communicable diseases to patients by engaging closely with Aga Khan University Hospital and the Clinical Trials Unit at AKU.

CRM is a pioneer in initiating research in regenerative medicine and stem cell biology in Pakistan with the mission to create a translational impact by attaining a deeper understanding of disease processes through functional basic science research enabling the development of novel therapies and translating these to bedside.

Consultancy Summary

We are looking to hire a stem cell scientist with expertise in regenerative medicine, organoid development and 3D bioprinting. While CRM has a very well-established regenerative medicine core facility, we are looking for an expert in the field of stem cell research to train our young energetic faculty and staff its in proper and efficient use.

Another field of stem cell research that requires focus at CRM is organoid generation. While we have expertise in developing organoids for neurodevelopmental disorders such as autism, we are looking for a candidate with expertise in developing organoid models for solid organs and cancer. Organoid development from primary cell cultures or iPSCs along with regenerative research for disease modeling will accelerate the jump from basic sciences to translational medicine, invariably leading to clinical trials in the near future.

Responsibilities

- Guide and train our faculty and staff in preparing scaffolds using commercial biomaterial
- Help in developing in-house scaffold material that can be efficiently utilized for 3D modeling
- Assist and train our faculty and staff in developing methods to accelerate wound healing following burns, surgery and injuries following trauma.
- Train the faculty and staff in the use of alternate sources for accelerated wound healing such as fish skin etc.
- Be able to integrate regenerative medicine technology with other specialized fields of stem cell research including utilization of induced Pluripotent Stem Cells (iPSC) and CRISPR-Cas9 gene editing technology in 3D disease modeling and organoid development leading to understanding the underlying pathophysiology and drug discovery
- Train the faculty and staff on the ethics and proper use of regenerative medicine in the field of translational stem cell biology
- As appropriate, the CADEX participant will have the opportunity to supervise short term interns and volunteers at CRM.
- Identify deficiencies in the regenerative and iPSC core facilities that needs attention
- Identify deficiencies in the CRM regenerative and organoid development programs that needs attention
- Support in designing and rolling out the next regenerative medicine and stem cell research strategic plan of 5 years with the faculty and senior members of CRM.

Required Qualifications & Experience

- PhD in Stem Cell Research with special emphasis on regenerative medicine.
- At least 5 years' experience as a faculty member in a renowned institute/university in regenerative medicine and stem cell research, especially 3D bioprinting and organoid development from primary tissue and iPSC
- Experience with mentoring and training students, staff and young faculty in the field of regenerative medicine and stem cell biology.



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- Hands-on experience in molecular biology, stem cell, and regenerative medicine research
- Well published in the field of stem cell/regenerative medicine with publications in peer reviewed good impact factor journals.
- Well versed in using online digital software for developing 3D models for regeneration of organs and scaffolds using the latest software.
- Strong written and verbal communication skills in English is required.
- A proven ability to manage competing priorities, work on multiple tasks simultaneously, seek clarification when required, and meet training deadlines effectively.
- Experience in academic settings is preferred.
- Must be able to complete the in-person placement at AKU-CRM, Karachi, Pakistan for a period of 3 months.

Preferred Personal Characteristics

- Be able to mentor and train young aspiring faculty and staff members with patience and interact positively
- Engage confidently and constructively with individuals from many different cultures and professional backgrounds.
- Be a team player and be a role model for others
- Willingness to work across the organisation at all levels in a collegial and collaborative manner

Language

English proficiency is required. In addition, if the incumbent can understand and speak Urdu, it would be a benefit.

Apply

Interested applicants are encouraged to apply by clicking the link below.

<https://akfc.submittable.com/submit/304587/cadex-2024-stem-cell-scientist-aku-pakistan>

Deadline: September 20th, 2024 by 11:59pm EDT

Please note that due to the nature of funding for this position, the placement is only open to Canadian citizens or permanent residents. Only shortlisted candidates will be contacted.

AKFC is committed to advancing gender equality and inclusion through our programming and operations in Canada and overseas. AKFC requires all employees to review and abide by the AKFC Gender Equality Policy.

AKFC recognizes the importance of safeguarding and is committed to ensuring it manages a wide range of risks such that beneficiaries, staff, other associates and the organization as a whole are kept safe from harm.

AKFC welcomes and encourages applications from people with disabilities. Accommodations are available on request for candidates taking part in all aspects of the selection process.