



THE AGA KHAN UNIVERSITY

AKU/Nova Symposium tackles ethics in stem cell research

Experts discuss emerging concerns at a symposium co-hosted by Nova and AKU in Lisbon



Lisbon, Portugal, 13 June 2019 - New discoveries in stem cell research have raised the hope among scientists that there will be breakthrough cures for common diseases ranging from heart disease to diabetes, but new ethical and regulatory questions have surfaced, according to experts at a symposium co-hosted by Nova University and the Aga Khan University (AKU).

Stem cells can be used to halt or even reverse chronic diseases by repairing or replacing tissues or organs. A good example is bone marrow transplantation, which is used for treating certain blood and immune system disorders. Some bone, skin and eye injuries and diseases can be treated by grafting or implanting tissues.

“Since these cells offer a tremendous hope for alleviating human suffering, researchers, industry and multicultural societies need to be on the same page with agreed-upon regulatory policy and guidelines that ensure ethical activities, transparency and best practice,” said Professor Arnold Kriegstein, founding director of the Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at the University of California, San Francisco (UCSF).

Although there has been an amazing progress in stem cell science during the last 10 years, most of the advances lead to ethical challenges, said Dr Azim Surani, director of Germline and Epigenomics Research. “For example, if a heritable monogenic disease can be treated, should we use gene editing or not? These are the questions that society needs to address.”

The new ethical questions relate to extending the culture of surplus human embryos generated for *in-vitro* fertilisation or test-tube babies, generating gametes (reproductive cells) and artificial embryos from stem cells, making animal-human chimeras, and genetically editing the human embryo.

There is also the rising tide of victims - unsuspecting subjects of risky experimentation or unproven or fraudulent treatments. Professor Timothy Caulfield, research director at the Health Law Institute, University of Alberta, calls this “scienceploitation”: “Now you see stem cell, genetic, and increasingly, microbiome research being exploited to sell a host of ridiculous products,” he said.

While “scienceploitation” has been taking place for years in wealthy countries - and is increasing - the same is now true in the developing world. Ironically, countries with high poverty rates stand to benefit the most from ethically responsible progress in the field, said Professor El-Nasir Lalani, founding director of AKU’s Centre for Regenerative Medicine and Stem Cell Research. “It would be unethical if equal access to new therapies were not possible in developing countries at the outset.”

“Humanity must come to grips with the host of new discoveries and immense opportunity this presents,” said Professor Lalani. “Now we as a global community are tasked with making sure this doesn’t become a runaway train leaving behind the ethical considerations. To stop the train completely would also be unethical, as the hope for breakthrough cures from stem cell research is greater than ever.”

Professor Lalani also spoke about building a research capacity partnership between AKU and UCSF in the development of a comprehensive and integrated research programme in stem cell biology and regenerative medicine. “Being a research-led University,” he said. “we believe that investing in stem cell research is a step forward toward achieving the United Nations’ Sustainable Development Goals.”

More on the [event website](#).

MoU between Nova and AKU:

On the occasion, the Nova University Rector João Sàágua and the Aga Khan University President Firoz Rasul signed a Memorandum of Understanding to facilitate collaboration in a variety of areas, including health sciences, humanities and social sciences, and media and communications. They expressed their commitment to foster and strengthen the partnership in order to improve the quality of life of vulnerable populations, to advance knowledge through cutting-edge research, and to promote international and cross-cultural cooperation and understanding.

Read online: <https://www.akdn.org/press-release/akunova-symposium-tackles-ethics-stem-cell-research>