# Council for Development of Regenerative Medicine and Stem Cells Technologies

In the Name of God

## **Grant Initiative Title:**

#### "Regenerative Medicine and ATMP Research Grant: Bridging Innovations"

## Introduction:

Welcome to a unique opportunity in the world of scientific innovation and medical progress. The Vice-Presidency for Science, Technology, and Knowledge-Based Economy Affairs (ISTI) of Iran is excited to announce collaborative research projects in partnership with the Council for Regenerative Medicine and Stem Cell Technologies (CRMT) and The Mustafa Prize Investment and Endowment Fund (MPIEF).

In today's healthcare landscape, translational studies in regenerative medicine are at the forefront of innovation. This initiative aims to bridge the gap between laboratory discoveries and real-world clinical applications, unlocking the potential of regenerative therapies to transform healthcare globally. Join us in this collaborative research effort and be a part of the future of healthcare.

#### Goals:

- 1. Advance Translational Research: Facilitate the translation of cutting-edge regenerative medicine discoveries and Advanced therapy medicinal products (ATMPs) into clinically applicable therapies and treatments.
- 2. **Promote Interdisciplinary Collaboration:** Foster collaboration among scientists, clinicians, engineers, and biotechnologists to drive innovation in regenerative medicine and ATMP development.
- 3. Enhance Global Health Impact: Develop regenerative therapies and ATMPs that address pressing global health challenges, such as organ transplantation shortages, degenerative diseases, and tissue regeneration.
- 4. **Support Ethical and Regulatory Compliance:** Ensure that research adheres to the highest ethical standards and regulatory requirements to guarantee the safety and efficacy of regenerative medicine interventions and ATMPs.
- 5. **Train the Next Generation:** Provide training and mentorship opportunities for emerging researchers in the field of regenerative medicine and ATMPs, nurturing future leaders and innovators.

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#### **Research Themes:**

- 1. **Stem Cell Biology and Engineering:** Explore novel techniques for the isolation, expansion, and differentiation of stem cells and their derivatives for regenerative applications and ATMP development.
- 2. **Immunomodulation and Immunotherapy:** Study methods to modulate the immune response for improved acceptance of transplanted tissues, ATMP safety, and the development of immune-based regenerative therapies involving stem cell derivatives.
- 3. **Tissue Engineering and Biomaterials:** Develop advanced biomaterials and tissue engineering strategies to promote organ and tissue regeneration, including the use of stem cell derivatives.
- 4. **Gene Editing and Cellular Reprogramming:** Investigate the use of CRISPR-Cas9 and other geneediting technologies to enhance the regenerative potential of cells and their derivatives, contributing to the development of ATMPs.
- 5. **Disease Modeling and Drug Screening:** Create disease models using patient-derived cells and their derivatives for better understanding of disease mechanisms, drug development, and the assessment of ATMP efficacy.
- 6. **Clinical Translation and Commercialization:** Focus on the clinical translation of regenerative therapies, ATMPs, and their derivatives, considering scalability, safety, and commercial viability.

#### Funding Details:

ISTI and CRMT will provide combined funding of \$10,000 USD for the chosen projects.

Additionally, MPIEF will allocate an extra \$10,000 USD in funding.