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3 April 2018

Carlos Moedas

Commissioner for Research, Science, and Innovation

European Commission

Rue de la Loi / Wetstraat 200

1049 Brussels

Belgium

Dear Commissioner Moedas,

On behalf of the International Society for Stem Cell Research (ISSCR), I write to share our views regarding the future of biomedical research and innovation in the European Union. The ISSCR is the leading professional organization of stem cell scientists and represents more than 4,000 members in Europe and around the world. The ISSCR supports both fundamental and applied research to advance understanding of human health and develop new therapies to treat human diseases. While we appreciate the desire to create ambitious, motivational research missions as part of the 9th European Framework Programme for Research and Innovation, we believe emphasis should be on a sustained commitment to investing in the most promising and innovative research that will foster dynamic economic growth.

Much of the economic growth that has occurred over the past generation would not have occurred without discoveries from basic research. Often the value of that investment is not realized until long after the discoveries are made. Arguably, two of the most-impactful, fundamental discoveries in recent decades were CRISPR gene editing and the discovery that mature cells could be “reprogrammed” to become pluripotent. Those comparably small investments in basic science are now revolutionizing the fields of cell and gene therapy, with numerous applications in regenerative medicine and agriculture. These discoveries have launched scores of biotechnology companies and have fundamentally changed the future of medicine.

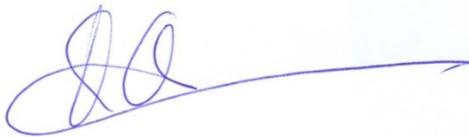
The ISSCR encourages the European Commission to balance fundamental and applied research in the 9th European Framework Programme for Research and Innovation. Arbitrarily limiting research opportunities to a narrow mission will slow the pace of discovery and could prevent the next transformative technology from being discovered in Europe. Government-supported basic research can also stimulate the private sector to bear the cost of translational research after the government sector has supported the basic research, thus reducing the investment necessary for the development of new therapies.

Within a broadly-focused research budget, the European Commission could consider smaller, targeted projects that seek to stimulate private sector investment. These projects could be modeled after the public-private partnerships in the United States that were created to solve translational research challenges. In 2016, the U.S. Department of Commerce invested [\\$70 million](#), leveraging \$129 million from the private sector, to create the National Institute for Innovation in Manufacturing Biopharmaceuticals. This new institute is developing innovative technologies to reduce the cost of discovering and manufacturing new biologicals. Similarly, the U.S. Department of Defense [invested \\$80 million](#) and leveraged \$214 million in private sector funding to create the Advanced Regenerative Manufacturing Institute, which is developing new technologies to manufacture engineered tissues. Small investments in translational projects can achieve the dual goal of encouraging private sector investment and mission-oriented problem solving, while retaining resources needed for future fundamental research investments.

The ISSCR encourages the European Commission to spur innovation by supporting programs that foster cooperation among fundamental research endeavors across Europe. Sustained investments in fundamental research will stimulate innovation-led growth for years to come.

Thank you for considering our views as the European Commission establishes priorities for the 9th European Framework Program for Research. If the ISSCR can be of further assistance to you as you move forward on this issue, please contact Eric Anthony, ISSCR's Director of Policy at eanthony@isscr.org.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'H' and 'C' followed by a long horizontal line extending to the right.

Hans Clevers, MD, PhD
President, ISSCR
Professor of Molecular Genetics at Hubrecht Institute
Research Director at the Princess Maxima Center for Pediatric Oncology