

In today's world, science and technology play a key role in the development of societies. On the one hand, technology influences people's lives, while at the same time it is culture and values that shape technological progress. Science, technology and culture intersect, giving shape to the reality around us.

One rapidly developing field is longevity biotechnology. Some expect a revolution to come soon in gaining control over the biological mechanisms of ageing. Experiments on mice have proven that it is possible to reverse the ageing process and prolong life through biotechnological intervention. This poses a new question: could humans be rejuvenated in a similar way?

As longevity biotechnology develops in the United States, new questions of vital importance to democratic societies are emerging. Given the scale of funding and the pace of development of longevity biotechnology, it is important to grapple with the key questions before the new technology becomes widely used in humans. For this reason, the aim of this research project is to understand what visions of the future are driving this technological development, as well as to understand what hopes and risks may be associated with the development of longevity biotechnology.

The research questions in this project include the following: Are policies on longevity biotechnology democratically made, taking into account diverse social perspectives? What future scenarios are imagined and by whom? Who will benefit from them and who will be at risk? What new risks are likely to emerge and what uncertainties can already be identified? How is knowledge about longevity biotechnology constructed and legitimized by scientists, government and the wider public? And what changes in the definition of health and life might occur if people lived 150 years thanks to longevity biotechnology? These questions will be addressed through an analysis of sociotechnical imaginaries, which are social visions of the future in the context of the development of longevity biotechnology.

The research will be carried out in three stages. The first stage will consist of a document analysis to identify key scientific, political and popular science messages between 2020 and 2025. This will include a systematic review of US scientific literature, legislation and popular science articles from newspapers such as The New York Times and Newsweek. During this time, key actors from the fields of science, law and the press will be identified. In the second stage, 20 to 30 individual in-depth interviews will be conducted with these individuals to explore how their perspectives correspond with the results of the analysis from the first stage. The third stage will involve ethnography at two scientific conferences and in one biotechnology laboratory to observe how sociotechnical imaginaries are presented and discussed in real time at important industry events and in everyday work. The results from all stages will then be integrated.

This innovative project will fill a gap in the literature by providing unique insights into the co-production of longevity biotechnology and culture. It will also contribute to the ongoing debate on the concept of Public Reason (Jasanoff) by developing a model of the relationships between its main dimensions, with a particular focus on how developments in biology and law are changing the definition of life and its entitlements.