



CAROLINA POLA
Director of Innovation (until November)

“2020 marked the year for science and innovation worldwide – we aligned our efforts to respond to the needs of a global health problem while continuing to bring value and solutions for cancer and other diseases.”

In 2020, the world took one of the hardest hits in history, but modern medicine has proven to be an invaluable tool to face the economic and health hurdles brought upon us by the COVID-19 pandemic. Whereas remaining challenges exist, innovation took the central stage everywhere and created new processes and tools that have allowed the world to move forward despite the strict social confinement and travel bans across the globe. Innovation is a priority, and at CNIO we share this value as one of the ways to bring solutions to society.

In 2020, the broad knowledge of biological processes and late-stage technologies developed by investigators at CNIO resulted in 2 projects being awarded grants through the *ISCI* extraordinary call for proposals to develop solutions for COVID-19. One of the projects aims to develop a humanised mouse model to test new drugs and vaccines for the disease. The second project focuses on a rapid and sensitive novel diagnostic

test to allow point-of-care diagnostics for COVID-19 – this innovative undertaking was also supported by a *CaixaImpulse* Consolidate grant to ensure its further development. Innovation support and actions for the research teams were put into place to secure collaborations with the private sector to speed up the adoption of project outputs by the market.

The efforts to support investigators in their innovation activities and facilitate the transfer of technology to the market resulted in an economic return of €728,000 for CNIO from royalties, the highest in the last 5 years. The technologies licensed have an impact on the research ecosystem and the drug development industry.

In 2020 we witnessed a milestone for CNIO with the launch of the Telomere Therapeutics spin-off to develop a telomerase gene therapy for the treatment of lung and kidney fibrosis.

The company will develop an innovative, advanced therapy that can provide a curative solution for a clinically unmet need worldwide. The operation entailed an investment of €1.5 million for the development of the technology in collaboration with the *Universitat Autònoma de Barcelona*, cofounder of the spin-off.

In 2020 we also achieved another milestone by establishing a substantial funding agreement with *CRIS* Cancer to develop new mouse models of pancreatic cancer and innovative targets that are expected to have a high impact for this incurable disease. Altogether, the CNIO was able to secure up to €2.4 million in research contracts with the private sector.

Despite the barriers to establishing contact with international industry, the CNIO participated in 2 calls from international pharmaceutical companies and was asked to be part of Pfizer's

selective network to join the Centre for Therapeutic Innovation call. We will continue to work with private collaborators that can help speed up the development of new therapies and technologies in biomedicine.

As a result of the scientific discoveries and continuous scouting at CNIO in the recent years, in 2020 we filed 1 priority patent application and entered the international phases with another patent. This will surely result in future developments and agreements with industry and venture capital to launch new companies that will develop products to help society and contribute to the productive biomedical sector as a whole. As a driver of knowledge creation, the CNIO will continue to explore new ways to rapidly transfer this knowledge to society and the market, contributing to the growth of our innovation ecosystem and the technology surge in the upcoming years.