SUMMARY OF THE COLLABORATION BETWEEN THE UNIVERSITY OF LA LAGUNA AND THE TENERIFE ISLAND COUNCIL (2001–2019) IN RELATION TO BIOMEDICAL RESEARCH

I. INTRODUCTION

In mid-2001, the University of La Laguna (ULL) and the Tenerife Island Council initiated a collaboration to create a scientifically translational structure capable of conducting high-quality biomedical research. This effort was aimed at accelerating the benefits of research for the population in terms of health maintenance, disease prevention, and the search for treatments for prevalent conditions.

To achieve this, both institutions organized a workshop with national and international experts, reaching the following conclusions:

1. Tenerife had a significant number of biomedical and health sciences researchers, well-trained in international centers, capable of high-quality research.
2. There were research groups with both basic and/or clinical training, international connections, and a proven ability to secure public funding.
3. There was a lack of an advanced biomedical research center at the regional level.

Additionally, to ensure that research could contribute to quality employment and wealth creation—and be sustainable through self-financing—the project was designed with the capacity for effective knowledge and technology transfer to society. This required the creation of a specialized unit for innovation, transfer, and intellectual property management.

II. HISTORY

The two institutions took steps to:
a) Establish the University Institute of Biomedical Technologies (ITB) through the ULL, as an interdisciplinary center integrating researchers from ULL and the two university hospitals in Tenerife.
b) Establish the Canary Foundation for the Institute of Biomedical Technologies (now the Canary Foundation for the Advancement of Biomedicine and Biotechnology) through the Island Council, to support project management, promote innovation and transfer, assist in securing funding, and drive development based on successful regional models.

Both goals were achieved in 2006. Since then, ULL and the Council have continued collaborating. As a symbol of their joint commitment, the foundation's board is chaired by the President of the

Island Council and vice-chaired by ULL's Rector, with the ITB’s elected director serving as the foundation’s Scientific Director.

In 2010, a strategic analysis led to the design of an island-level structure to develop and promote the international projection of ULL's research groups and hospitals. It sought to integrate human resources, scientific equipment, and existing knowledge to accelerate biomedical discoveries and their health applications. This vision materialized into two major projects presented between 2010 and 2012: one to the Carlos III Health Institute (Spain), and one to the EU’s FP7 “Research Potential” program. Both were approved and implemented in the following years.

III. PROJECT CONTENT AND OBJECTIVES: VISION AND MISSION

University Institute of Biomedical Technologies (ITB):
Created in 2006 by the Canary Islands Government at the proposal of ULL, the ITB (website) is a research institute aiming to “develop and enhance biomedical research of excellence in relation to local biosanitary needs.” Its mission combines interdisciplinary approaches in basic biomedicine, medicinal chemistry, and clinical research to discover new therapeutic strategies and facilitate the transfer of biosanitary knowledge and technologies to patients and industry.

Canary Foundation for the Advancement of Biomedicine and Biotechnology (Bioavance):
Established in 2006 by the Island Council, the Bioavance Foundation (website) initially supported ITB activities and later expanded to “promote, foster, and develop biomedical and biotechnological research and innovation, especially regarding disease prevention, diagnosis, and treatment,” with a translational, global, and integrative perspective.

IV. STRATEGIC PLANNING

In 2010, the first strategic analysis identified key strengths and weaknesses. Following an evaluation of scientific output and potential synergies, several activities were planned to achieve these objectives:

1. Improve research infrastructure through new facilities and shared scientific equipment.
2. Create a program-based organizational model to promote cross-disciplinary collaboration.
3. Increase critical mass by hiring researchers and technicians, overcoming national university system limitations.
4. Raise international visibility and industrial partnerships.
5. Develop skills to play a dynamic role in the regional biomedical innovation system.
6. Ensure stable funding and operational capacity for strategic execution.

7. Attract non-public sources of funding.

V. MILESTONES ACHIEVED

1. Public Funding Acquisition:
Through competitive public calls, three main funding sources stand out:

- In 2010, a €8,030,000 grant from the Carlos III Health Institute (Spain) for the "Construction and Development of the Canary Islands Biomedical Research Center" (via ADE-210/00046).
- In 2012, a €4,158,874 grant from the EU's FP7 "Research Potential" program for "Improving Biomedical Research and Innovation in the Canary Islands" (IMBRAIN project), which received a perfect score (15/15) in a 4% success-rate call.
- Participation in all national scientific-technical infrastructure calls (2001–2020), enabling ULL to acquire cutting-edge scientific equipment valued at approximately €7,000,000, co-funded 20–30% by the Island Council.

In total, around €20 million in competitive public funding was raised—likely the highest public funding secured by any center in the Canary Islands' public university system in the past 15 years.

2. Promotion of Local and Regional Institutional Collaboration:
On November 27, 2013, a general collaboration protocol was signed between ULL, the Island Council, the Canary Islands Health Service, the Canary Agency for Research, Innovation and the Information Society, and the Tenerife Science and Technology Park to promote biomedical and biotechnological research.

3. Capacity Building and Internationalization:
The execution of the ADE-210/00046 and FP7-REGPOT-2012-31637 projects achieved:

- Upgraded infrastructure, including an advanced animal facility and a transgenesis unit.
- Hiring of researchers through competitive processes to join the institute and advance their careers.
- Launch of a comprehensive visibility and outreach plan, including media engagement, international conferences in Tenerife, and researcher exchanges with European centers.
- Innovation, transfer, and IP management training via the creation of a specialized biomedical unit within the Bioavance Foundation.
- Significant increase in scientific output, as evidenced in ITB's annual reports available on the ULL website.

These efforts positioned ITB to apply for Spain's prestigious *María de Maeztu Units of Excellence* program in 2019. Although the first application received a good but insufficient score, it helped identify areas for improvement in future proposals.

Date: November 23, 2020
Footnotes:

1. Support Program for the Development of Health Research Institutes (Project ADE-210/00046; 2011–2018).
2. IMBRAIN: *Improving Biomedical Research and Innovation in the Canary Islands* (FP7-REGPOT-2012-316317; 2012–2016).