The unwavering resilience of scientific research in Latin America

La inquebrantable resiliencia de la investigación científica en América Latina

A resiliência inabalável da investigação científica na América Latina

Rev. Fac. Agron. (LUZ). 2026, 43(1)
ISSN 2477-9407
DOI: https://doi.org/10.47280/RevFacAgron(LUZ).v43.n1

Editorial

Dr. Lenin González-Paz
Deputy Chief of Centre for Molecular Biomedicine, IVIC-Zulia, and Professor at the Experimental Faculty of Sciences of the University of Zulia.
National Award for Best Scientific and Innovation Work, Health Sciences Category, 2025.

Science in Latin America develops in an environment marked by constant adversity, and empirical research in our region is a living testimony to human strength. From laboratories with infrastructural limitations in South American public institutions to the most advanced innovation centres in Central America, academics have demonstrated an extraordinary ability to forge ahead despite fiscal constraints, brain drain and socio-economic ups and downs. This tenacity goes beyond mere survival: it is a collective effort that redefines what seems possible.

Looking at the local landscape, in Venezuela, the University of Zulia (LUZ) has emerged as a key hub for advances in agronomy, despite hyperinflation and shortages of basic inputs. Here, researchers have creatively turned to local materials to study and adapt crops to climate and market demands. Biotechnology initiatives in other countries in the region, including our own, have flourished even in the face of the latest pandemic, integrating technological tools that improve yields on degraded soils. We need only look around us to see inspiring examples of resilience in the face of environmental and socio-political challenges, driven by indigenous and low-cost methodologies.

This determination rests on three essential pillars. First, cross-border and cross-disciplinary collaboration through Latin American agricultural research networks that enable knowledge sharing across borders and maximise impact with limited budgets. Second, frugal innovation, reflected in the exodus of many researchers who have decided to leave their comfort zone to develop or adopt accessible digital tools, such as free software for climate modelling or artificial intelligence platforms for predicting pests, achieving high-performance results with minimal resources. Third, social commitment, evident in academic initiatives that combat inequalities in the face of economic powers, incorporating cultural diversity and the ancestral knowledge of indigenous peoples into food security strategies.

However, this resilience demands immediate action. Governments must prioritise stable funding for basic science; institutions such as the University of Zulia demonstrate the potential of public-private partnerships to solve real social problems. The scientific diaspora, with the emigration of brilliant minds to Europe and North America, could be curbed through incentives such as reversible funds for research projects and ongoing recognition via National and Regional Science, Technology and Innovation Awards.

In short, research in Latin America not only persists, but adapts in the face of adversity, becoming an inexhaustible source of inspiration. At the Faculty of Agronomy of LUZ, where the seeds of innovation sprout in arid soils due to neglect, the germ of a sustainable future beats. This strength must be recognised and promoted, because in every failed experiment that precedes success published in a scientific journal, the creative spirit of our region resonates.