Introduction

Panama: Forging a Path Toward International Science Hub by Dr. Ruben Berrocal

I am delighted to write an introduction to this supplemental issue of the Journal of Alzheimer’s Disease (JAD).

As JAD continues to serve as one of the most prolific, highly cited, and recognized publications on Alzheimer’s and neurodegenerative diseases, I am pleased to share with you some of our perspectives and developments in this important field of study and where Panama might offer solutions.

While we witness exciting breakthroughs in fighting neurodegenerative diseases like Alzheimer’s and Parkinson’s diseases, more must be done. Perhaps now more than ever, it is critical we continue apace to eradicate these diseases through new discoveries and novel methods.

Currently, innovations are being sought to find new pathways to a cure. Research on new drug discoveries has shifted focus to the natural world and the critical need to develop biomarkers that can distinguish the normal aging processes from neurodegeneration and other dementias. These findings should prove invaluable to early diagnosis of these diseases – the first line of defense.

In this area, Panama can offer new hope in groundbreaking research and drug developments. In what a recent article in Nature, one of the world’s most cited scientific journals, referred to as Panama’s “big ambition” in the moment of our “scientific renaissance,” we are forging a new direction in drug discoveries, clinical trials and research incubators.\(^1\)

Under President Ricardo Martinelli’s leadership, we are aiming high, seeking to become an international hub for science and technology; and be among the leaders in bioscience and biomedicine in our hemisphere. Our rich natural resources and dedicated scientists offer us a means for growth in this field that is second to none in the region.

Neurodegenerative diseases have a complex pathol-
ogy and etiology and we do not know enough about
them. For instance, we have yet to discover a cel-
lular/animal model that accurately replicates their
degenerative effects as seen in the human brain. As
this field of study becomes more important given our
ever-growing and aging populations, the time to find a
cure is now.

Neuroscientists in Panama are working to develop
cognitive, neurochemical, and imaging biomarkers to
better understand degenerative diseases, as well as a
comprehensive database on brain disorders. In addi-
tion, our drug discovery scientists are focusing on
identifying novel molecules from marine biodiversity
as neuroprotective agents.

Panama is undertaking major investments in the field
of science, innovation, and technology. We have set
aside more than $50 million this year, with a plan to
increase that figure to 0.5% of GDP over the next few
years. We are optimistic that given this pledge, and
Panama’s abundant flora and fauna, we will produce
vital solutions to finding new disease-modifying agents
among us.

Recently, our government signed a memorandum of
understanding with a leading U.S. university hospi-
tal and research facility to establish a drug discovery
center in Panama. And we will continue to seek out
mutually beneficial alliances to attract the best and
brightest to Panama, further demonstrating our serious
commitment.

Investments like these, and cultivating important
collaborations, will offer significant contributions that
the scientific community must make to solve the dilem-
mas of the 21st century. For our part, it is important that
we foster a culture of competitiveness in our global
economy by creating world leaders in science, innova-
tion, and technology. This is our moment, and we are
ready to rise to the occasion.

Panama has a profound understanding of what can
be accomplished when collective will and ingenuity
confront considerable challenges. If not for the global
commitment of the brave workers and brilliant engi-
neers who built the Panama Canal, we may have not yet
discovered a vaccine for yellow fever. Without unified
commitments like these, we often deprive one another
of our potential.

Curing neurodegenerative disease is no less daunt-
ing a task, but we must continue to seek out new
solutions to better understand it, control it, and ulti-
mately eliminate it.

And while we will long feel the loss of one of the
field’s great contributors in Dr. Mark A. Smith, we must
continue to pioneer great work, such as his, that pushes
the boundaries of contemporary science, medicine, and
conventional wisdom. In this, we find ourselves in our
hour of great potential, and on the shoulders of giants.

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cil of Ministers of Science and Technology for Latin
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