



**INSTITUTO DE CIENCIAS MÉDICAS
(I.C.M)**

STRATEGIC PLAN

2023-2030



INSTITUTO DE CIENCIAS MÉDICAS (I.C.M.)

STRATEGIC PLAN

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Board of Directors

Iván Landires MD, PhD

President

Virginia Núñez Samudio MD, MPH, PhD.

General Secretary

Rónel Solís Castellero, PhD.

Scientific Director



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1. SCOPE OF THE PLAN

In this document we present the strategic plan of Instituto de Ciencias Médicas for the period 2023-2030, which is framed within the development of the lines of research contemplated in the ICM research agenda for the year 2023-2030.

2. STRATEGIES

This plan contemplates four strategic lines of research:

- A. Generation of Scientific Evidence for the Formulation of Public Policies.
- B. Genetics and Public Health
- C. Microbiology and Public Health
- D. Public, Environmental, Global and Planetary Health

3. MISSION

Contribute to the prevention and treatment of diseases through research, education and public health actions with implications for public policy.

4. VISION

Development of research whose products can contribute to the development and management of public policies with an impact on the health of our population.



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5. STRATEGIC AXES

5.1. GENERATION OF SCIENTIFIC EVIDENCE FOR THE FORMULATION OF PUBLIC POLICIES

STRATEGY	ACTION	RESPONSIBLE
To determine the prevalence and characteristics of victims in the general population in traffic accidents in Panama.	Design of new methodology for the development of the research.	Virginia Núñez-Samudio Microbiology and Public Health Unit.
To identify the prevalence of disabled secondary to traffic accident injuries in Panama.	Design of new data collection instruments.	Iván Landires Genetics and Public Health Unit
To determine the prevalence and characteristics of suicides in the general population.	Establishment of new collaborations with related entities.	
Determine the epidemiological prevalence of various diseases in Panama.	Promotion and dissemination of results for consideration in the creation of public policies.	



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5.2. GENETICS AND PUBLIC HEALTH.

STRATEGY	ACTION	RESPONSIBLE
<p>To study by cytogenetic techniques people exposed to agrochemicals in Azuero and their impact on human health.</p> <p>To identify determinants for the development of breast cancer related to lifestyle and genetics in women living in the Azuero region.</p> <p>To determine the genetic characteristics of non-traditional CKD in Azuero.</p> <p>To study probable exposure risk factors (exposome) and their effect at chromosomal and epigenetic level in patients with NT-CKD.</p>	<p>Epidemiological study of pesticides and congenital malformations in Azuero.</p> <p>Cytogenetic study of the genomic effects of pesticides.</p> <p>Measurement of pesticide metabolites in urine and blood.</p> <p>Measurement of heavy metals in urine and blood.</p> <p>Statistical analysis of association.</p> <p>Exome sequencing in patients with non-traditional chronic kidney disease.</p> <p>Sequencing by genetic panel.</p> <p>Promotion and dissemination of results for consideration in the creation of public policies.</p>	<p>Ivan Landires Genetics and Public Health Unit</p>



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5.3. MICROBIOLOGY AND PUBLIC HEALTH.

STRATEGY	ACTION	RESPONSIBLE
<p>To determine bacterial typing and characterize the main mechanisms of antibiotic resistance through molecular epidemiology of the most prevalent bacterial species involved in HCAI in hospitals in Panama.</p> <p>Phenotypic and genotypic characterization of microorganisms isolated from companion, production and wild animals and environmental samples.</p>	<p>Epidemiological surveys of punctual prevalence.</p> <p>Determination of susceptibility or resistance of strains isolated from companion, production and wild animals and environmental samples.</p> <p>Molecular analysis of bacterial strains.</p> <p>Characterization of antimicrobial resistance genes.</p> <p>Typing of the most prevalent bacterial strains implicated in HCAI using molecular biology tools.</p> <p>Determination of the clinical significance of resistant strains isolated from companion, production, wild animals and environmental samples.</p> <p>Promotion and dissemination of results for consideration in the creation of public policies.</p>	<p>Virginia Núñez-Samudio Microbiology and Public Health Unit.</p>



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5.4. PUBLIC, ENVIRONMENTAL, GLOBAL AND PLANETARY HEALTH

STRATEGY	ACTION	RESPONSIBLE
To develop studies that aim to raise the quality of life of people in equity, while caring for the environment and working for the sustainability of our civilization and our planet.	I. Public Health II. Environmental Health III. Global Health IV. Planetary Health	Virginia Núñez-Samudio Microbiology and Public Health Unit. Iván Landires Genetics and Public Health Unit Rónel Solís Social Sciences and Public Policy Unit.

Guidelines and requirements to become a researcher at the Institute of Medical Sciences:

1. Physician with demonstrated research experience through research products such as scientific articles in international indexed journals and other products, and/or:
2. Doctor (PhD) with demonstrated research experience through research products such as scientific articles in indexed international journals and other products, and/or:
3. Any researcher with other academic degrees with demonstrated research experience through research products such as scientific articles in indexed international journals and other products.