



## Who We Are

CIDEIM is a research and technological development center dedicated to mitigate infectious disease through discovery, innovation and training in biomedicine. We seek to reduce the impact of infectious diseases through the development of tools for the surveillance, opportune detection, and design and targeting of therapies. The "autonomous" nature of CIDEIM within the National System for Science, Innovation and Technology has contributed to a novel institutional paradigm for research at the frontiers of biomedicine. Our approach to health problems is multidisciplinary and investigations range from basic to translational and applied. Our mission is pursued in collaboration with the public health authorities, industry, and national and international academic research institutions.

#### Our Mission

As a non-profit Colombian institution, we seek to reduce the impact of infectious diseases and thereby improve the quality of life of those affected through the generation and use of knowledge, the continual improvement of research capacity, and the creation of opportunities for technological development in health.

#### Our Vision

Our vision is to be an organization where creativity, scientific talent, technological capability, and entrepreneurial spirit converge to transform knowledge into actions that improve human health.

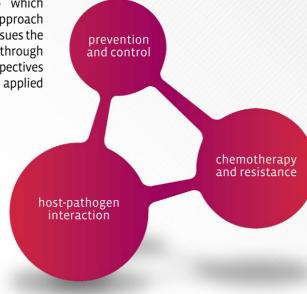
## Our History

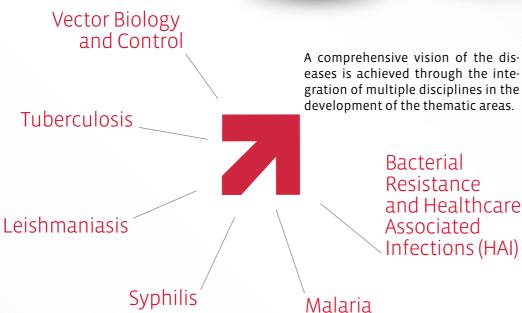
Our institutional heritage dates back to 1961 with the initiation of a technical cooperation program between Tulane University and the Universidad del Valle supported by the US National Institutes of Health. Fifteen years later, in 1975, COLCIENCIAS became the national partner, transforming the cooperation with Tulane into a multilateral program in Colombia. In 1990, CIDEIM became a national non-profit autonomous institution. This transition was made possible by the support of COLCIENCIAS and the effort and commitment of CIDEIM investigators. In 2008, CIDEIM entered into an alliance with ICESI University to support its new undergraduate programs in life sciences and medicine, and to begin a new chapter of biomedical research, service and training with the advantage of an infrastructure designed for its mission.



## Our Research

Research at CIDEIM is developed within three broad interrelated lines – prevention and control; host-pathogen interaction; and chemotherapy and resistance – which together constitute an integrated approach to infectious diseases. Each line pursues the same goal of improved health through investigation from different perspectives and disciplines of the basic and applied sciences.





# Our Training

Our training program contributes to national research capacity through two broad strategies:

- Expansion of the scope of elective courses and research training opportunities within national postgraduate programs in basic biomedical sciences through a network of public and private Colombian universities.
- Continuing education opportunities in fundamental research skills and quality assurance for scientists and health professionals.

The training program includes a diverse repertoire of modalities based on interinstitutional cooperation and information technologies that provide broad outreach capacity. In addition to mentored research training for young investigators, clinical research fellows, masters, doctoral and postdoctoral trainees, each year, in collaboration with international experts and a network of national universities, we offer online interactive postgraduate courses and seminars in biomedical sciences. CIDEIM also offers a portfolio of research skill building courses and workshops including "Effective Project Planning and Evaluation in Health Research", "Statistics Applied to Biomedical Research", "Good Clinical Practice", "Ethical Conduct of Investigation", and "Data Analysis Planning". Several of these are available through e-learning and blended learning modalities.



#### Z Leishmaniasis

Using an interdisciplinary approach, our research on leishmanisis seeks to define interventions that prevent the transmission of infection and the development of disease. These interventions target the determinants of susceptibility and pathogenesis of leishmaniasis resulting from the elicited host response and the parasite factors that trigger these response. The identification of intervenable determinants of transmission, and pathogenesis provide the basis of innovative interventions and therapeutic strategies.

### Bacterial Resistance and Healthcare Associated Infections (HAI)

We integrate a team of references for translational research in clinical-molecular epidemiology and health information systems, focused on the processes of surveillance, prevention and control of the HAIs, bacterial resistance and antimicrobial consumption, generating valid, timely and quality information for the safe care of the patient, according with the healthcare safety policy.

## Vector Biology and Control

We seek to contribute to the development of control strategies for reducing the incidence of diseases caused by transmitted pathogens by insect vectors. We focus on the knowledge of the biology and ecology of vectors, and in understanding of the molecular and biochemical mechanisms associated with the vectorial competence and resistance to insecticides. The unit has experience in the study of factors involved in the transmission of diseases such as dengue, leishmaniasis and malaria.

### Syphilis

We study host-pathogen interactions in venereal, gestational and congenital syphilis. In parallel, our epidemiologic studies and education activities help improve health strategies designed for preventing syphilis mother-to-child-transmission and controlling infectious transmitted diseases.

#### Tuberculosis

Focuses on the detection and characterization of the mechanisms of resistance of Mycobacterium tuberculosis prevalent in the Colombian Southwest and through that knowledge contribute to the improvement of the programs of control and elimination of this disease.

### Malaria

We are focused on the identification of parasite (*P. falciparum*) factors involved in the development of the resistance to antimalarial drugs and in the study of the mechanisms of systemic inflammation that contribute to the pathogenesis of the disease.

## Continuing education

- EFFECTIVE PROJECT PLANNING AND EVALUATION IN HEALTH RESEARCH (EPPE): This course seeks to strengthen the skills of health professionals and researchers in the areas of planning, organizing, managing and evaluating their research projects, thereby ensuring successful implementation, effective collaborations and increased competitiveness for international funding.
- GOOD CLINICAL PRACTICES: Through review of the theoretical literature and practical exercises, at the end of the course, attendees will have the necessary skills for interpreting and applying the highest national and international standards governing clinical research.
- APPLIED STATISTICS IN BIOMEDICAL RESEARCH: This course provides a general
  and applied vision of tools and statistical methods most commonly used in
  biomedical research, allowing to the participants to develop skills and understanding in the analysis and interpretation of results.
- ANTIMICROBIAL STEWARDSHIP: From the basic concepts to the implementation
  of antimicrobial guidelines in the hospital. A course designed for clinical microbiologists, infectious disease physicians, ICU MDs and pharmacists with interest
  in infectious diseases and Antimicrobial Stewardship.







# CIDEIM

Centro Internacional de Entrenamiento e investigaciones Médicas

GENERATING KNOWLEDGE,
SOLUTIONS AND ADVANCES FOR HEALTH

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