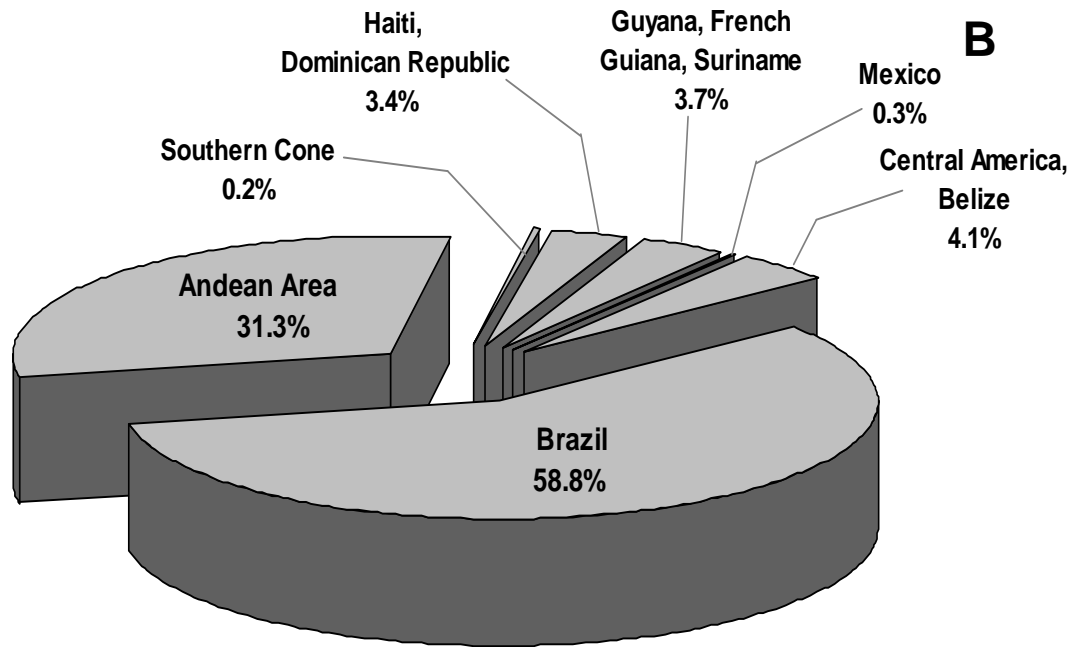


International Centers of Excellence for Malaria Research - ICEMR

Centers sponsored by NIAID/NIH across the globe to **generate knowledge and provide technical and scientific support to governments** of endemic countries to strengthen the current malaria control measures and **to facilitate malaria elimination**

Sócrates Herrera Valencia , MD
Centro de Investigacion Cientifica Caucaseco
Cali, COLOMBIA

Malaria in Latin America



Centro Latino Americano de Investigación en Malaria



To generate knowledge and provide technical and scientific support to governments of **Colombia, Peru, Panama** and **Guatemala** to strengthen the current malaria control measures and to facilitate malaria elimination

Other countries as **Ecuador, Honduras** and **Haiti** would join CLAIM

International Centers of Excellence for Malaria Research - ICEMR



CLAIM Study sites



Guatemala G: Bartolome de las Casas

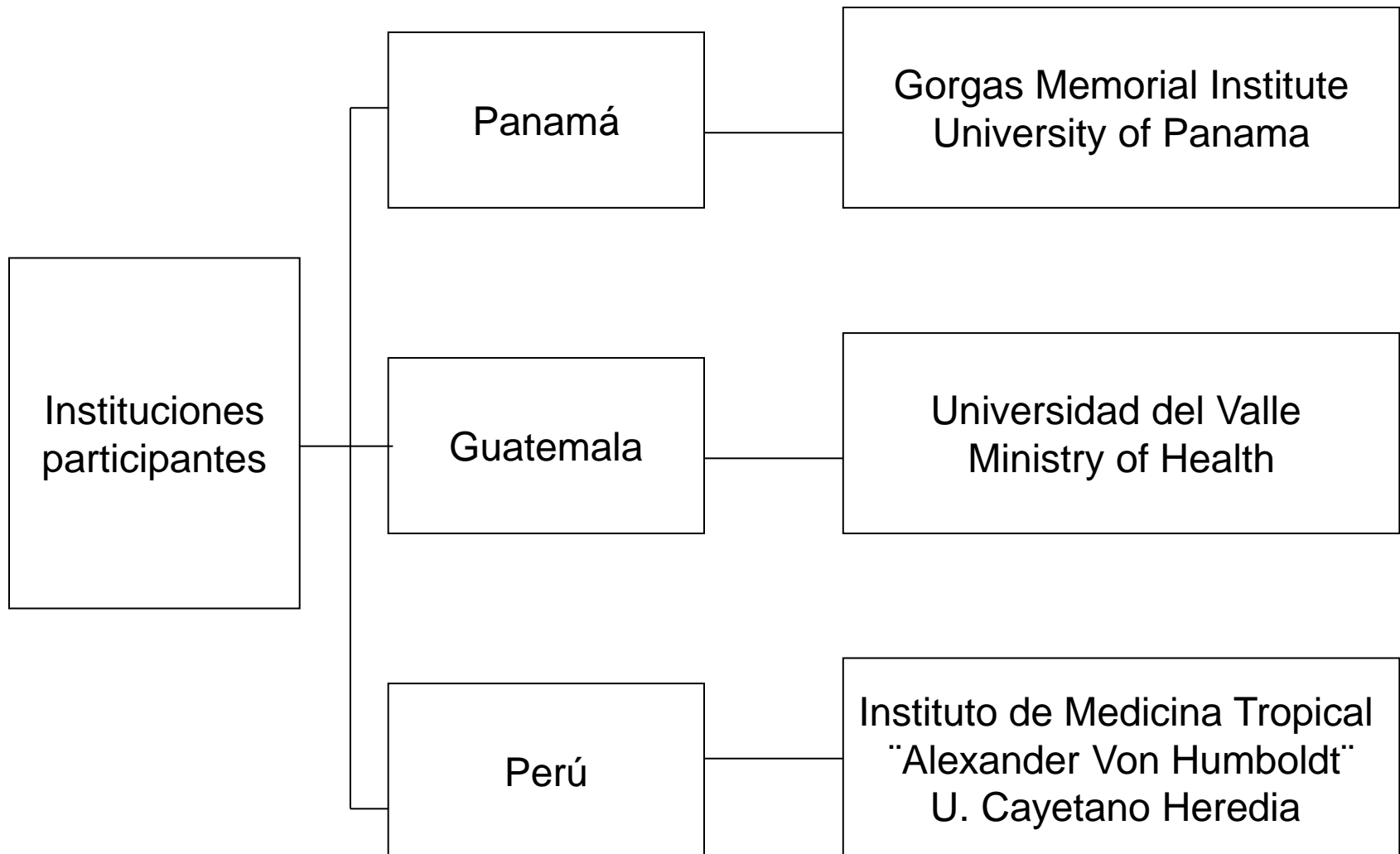
Panamá D: Chepo – E: Bocas del Toro

Colombia A: Tierralta
B: Tumaco
C: Buenaventura

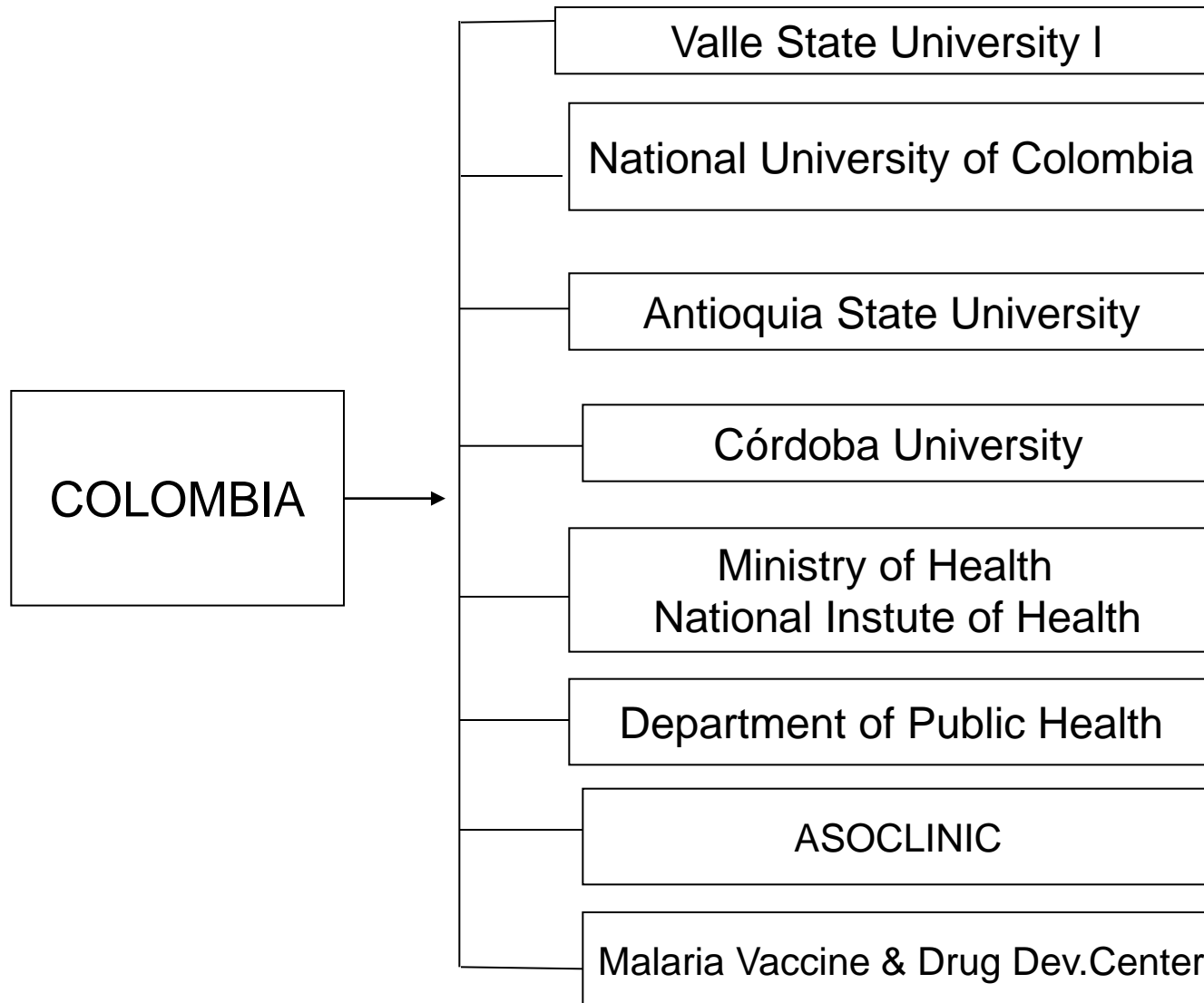
Perú F: Piura – H: Bellavista

-

Latin American Collaborators



Articulating Institutional Cooperation



CLAIM



Project #1

EPIDEMIOLOGY OF MALARIA TRANSMISION IN LOW TO MODERATE SETTINGS OF LATIN AMERICA

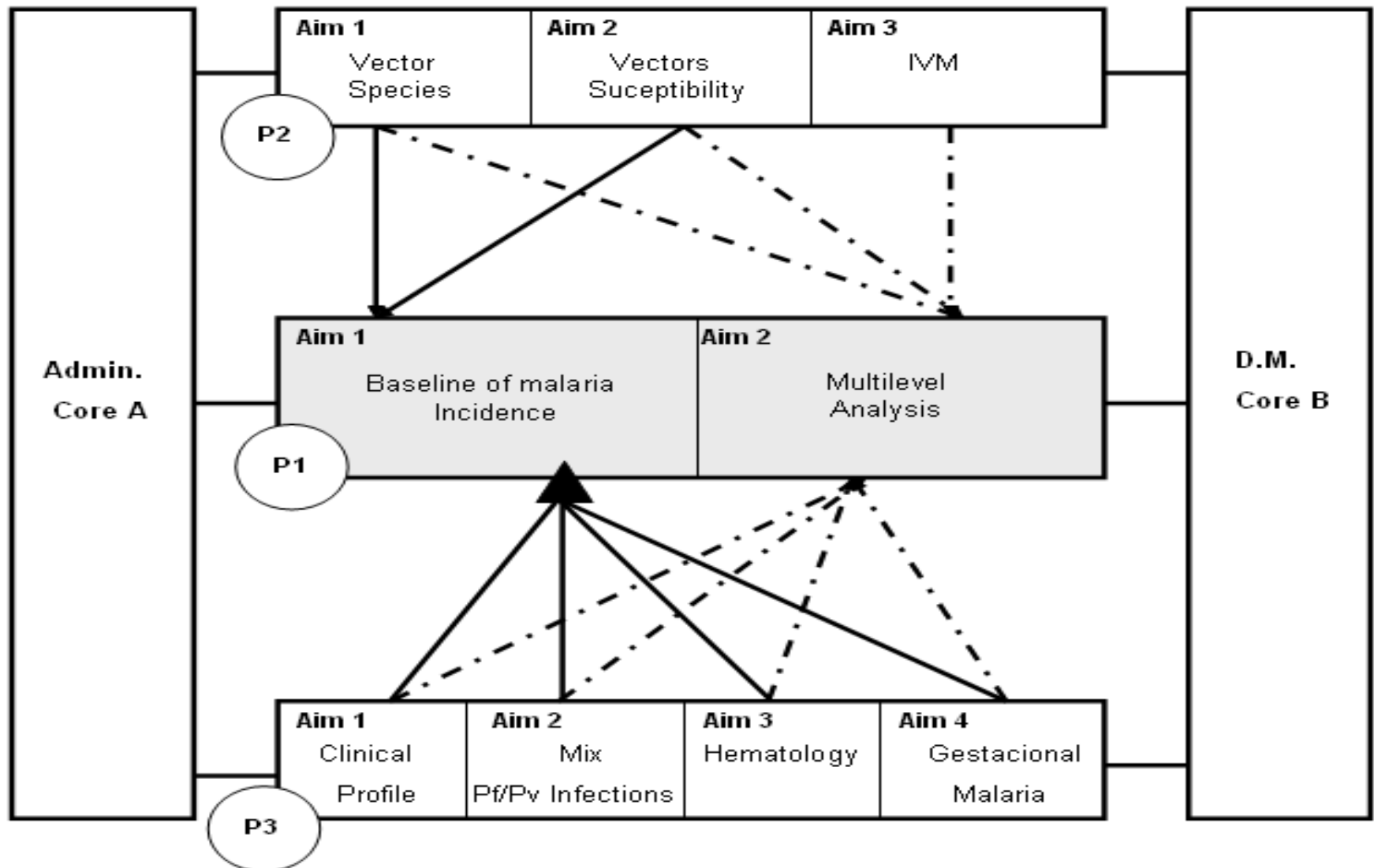
Project #2

VECTOR BIOLOGY RESEARCH AND INTEGRATED VECTOR MANAGEMENT FOR MALARIA CONTROL

Project #3

UNDERSTANDING THE IMMUNOPATHOGENESIS OF MALARIA IN LATIN AMERICA

Interrelationships Among Projects, Cores and Collaborators



Other ICEMR components

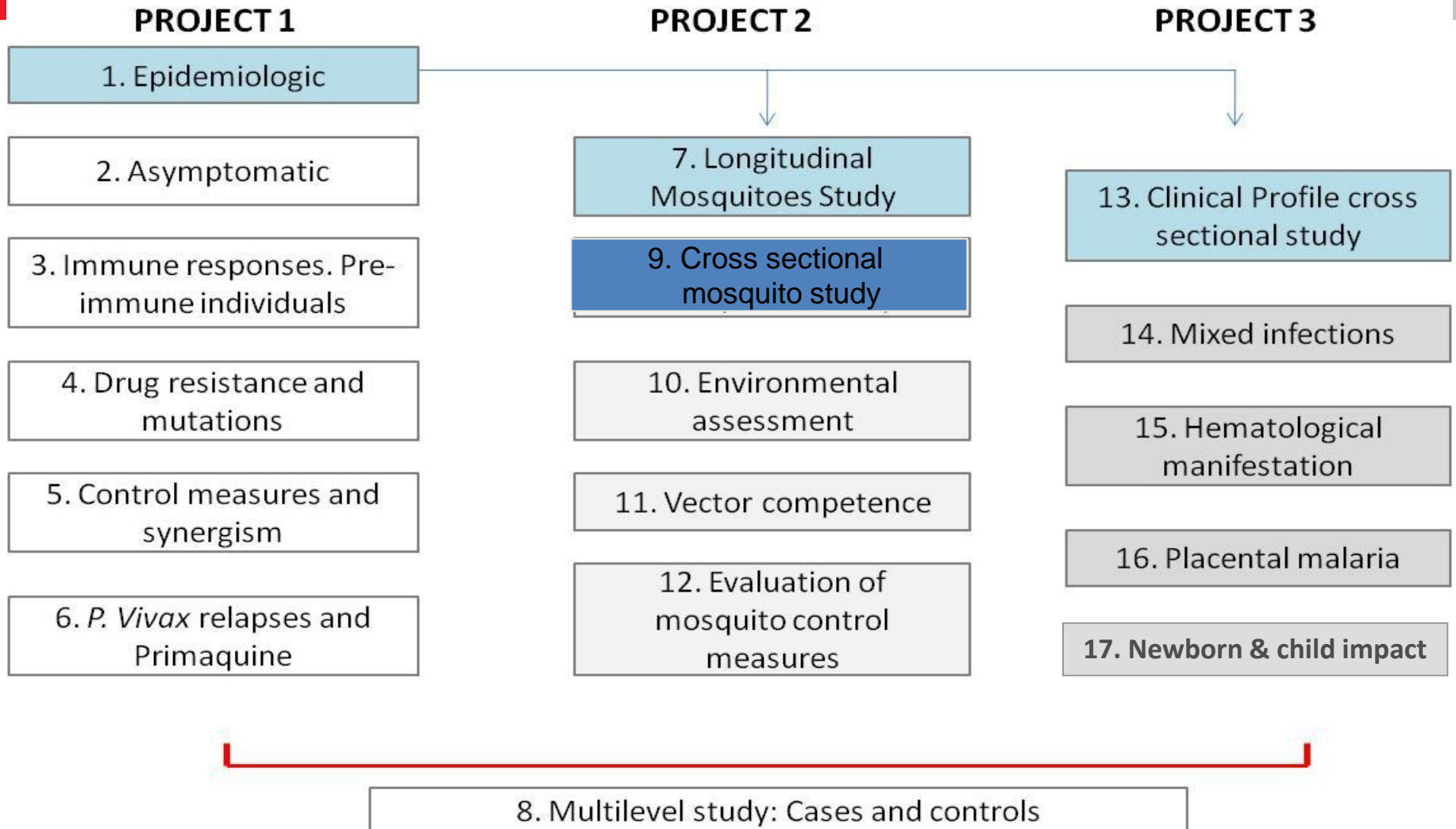
Data Management and Biostatistics Core: Analysis & Modeling

- Biostatistic
- Spatial analysis
- Mathematical modeling

Training and Special Projects

- Young Scientists to join Center activities
- Special projects on new question

Comprehensive Research Approach



Progress

- Protocols 1 and 2
- Standard Operational Procedures:
 - SOP1: Breeding sites
 - SOP2: Larvae rearing-isofamilies
 - SOP3: Taxonomy
 - SOP4: Human landing catches
 - SOP5: Resting catches
 - SOP6: CDC traps
 - SOP7: ELISA
 - SOP8: Parity dissections
 - SOP9: Sample codification
- Formats
- Training Courses:
 - Entomologists of the NMCP in Bogotá
 - Field methods in Tumaco
 - CDC susceptibility & biochemical tests in Bogotá
- Meetings with health authorities in each region of Colombia
- List of equipment and materials.
- Ethical clearance. Ethical Committee of the National University.
- Field work in Tumaco

Coordinating Control Activities

MOH national, regional and local

Communitites authorities and leaders

Communities



Standardising Vector Specimen Collection

- Training community leaders
- Population census
- Dictionary codes for sample handling
- Barcodes
- Training of lab tech.
- Sample storage
- Development of forms for DB



TRAINING



DIAGNOSE QC/QA

Thick Smears

QC/QA

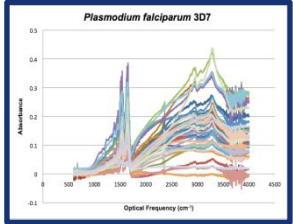
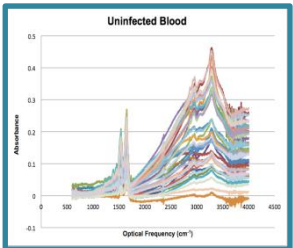
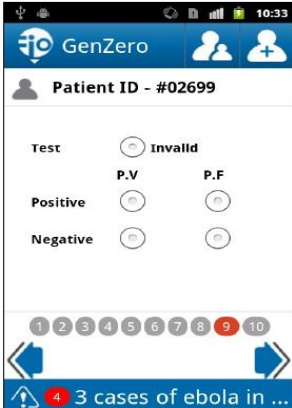
RDTs

Availability

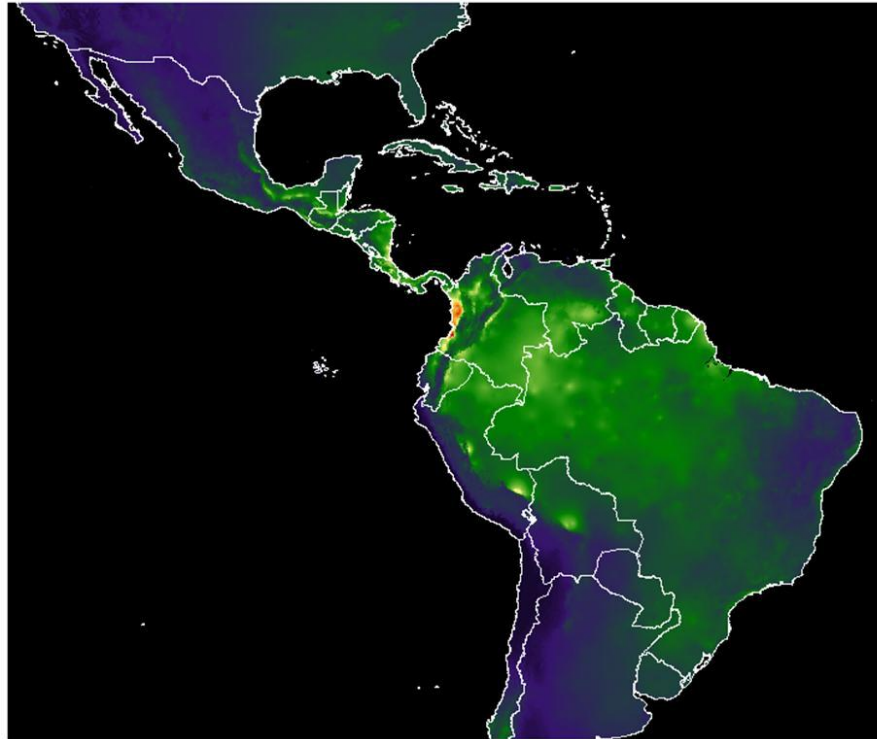
PCR

RT-PCR

Reproducibility

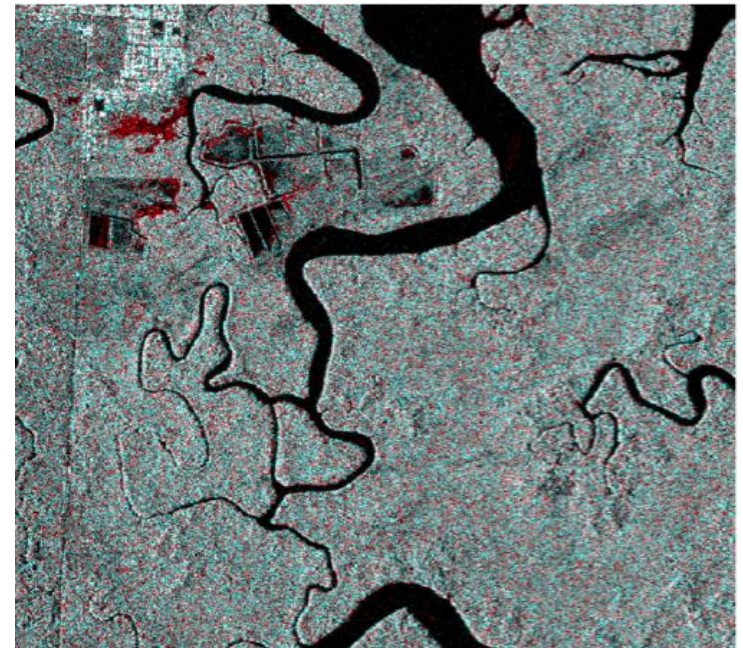


RADAR IMAGES

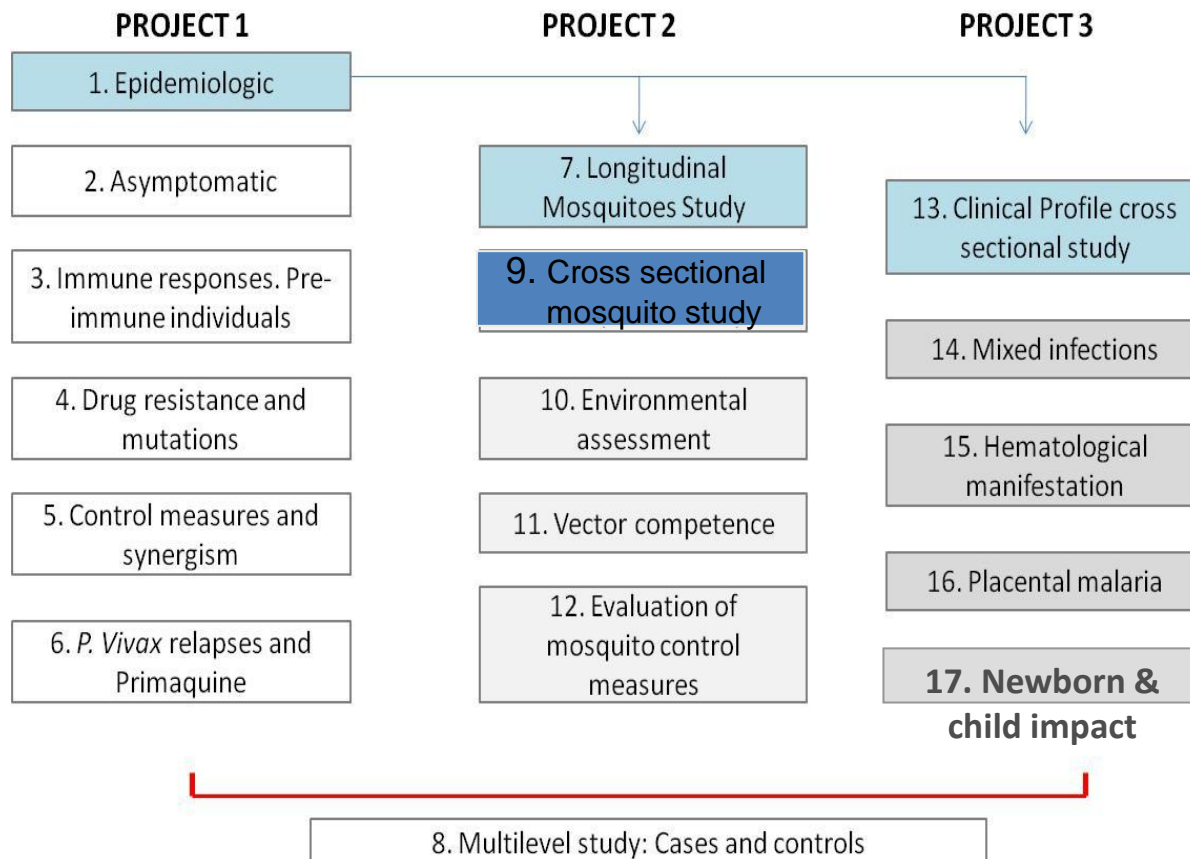


RADAR AMPLITUDE CHANGE

The red colors highlight major changes in surface moisture between two Radarsat 2 images acquired four months apart (Nov 2010 and Mar 2011) in this area near Tumaco.



New intervention tools: vaccines ?

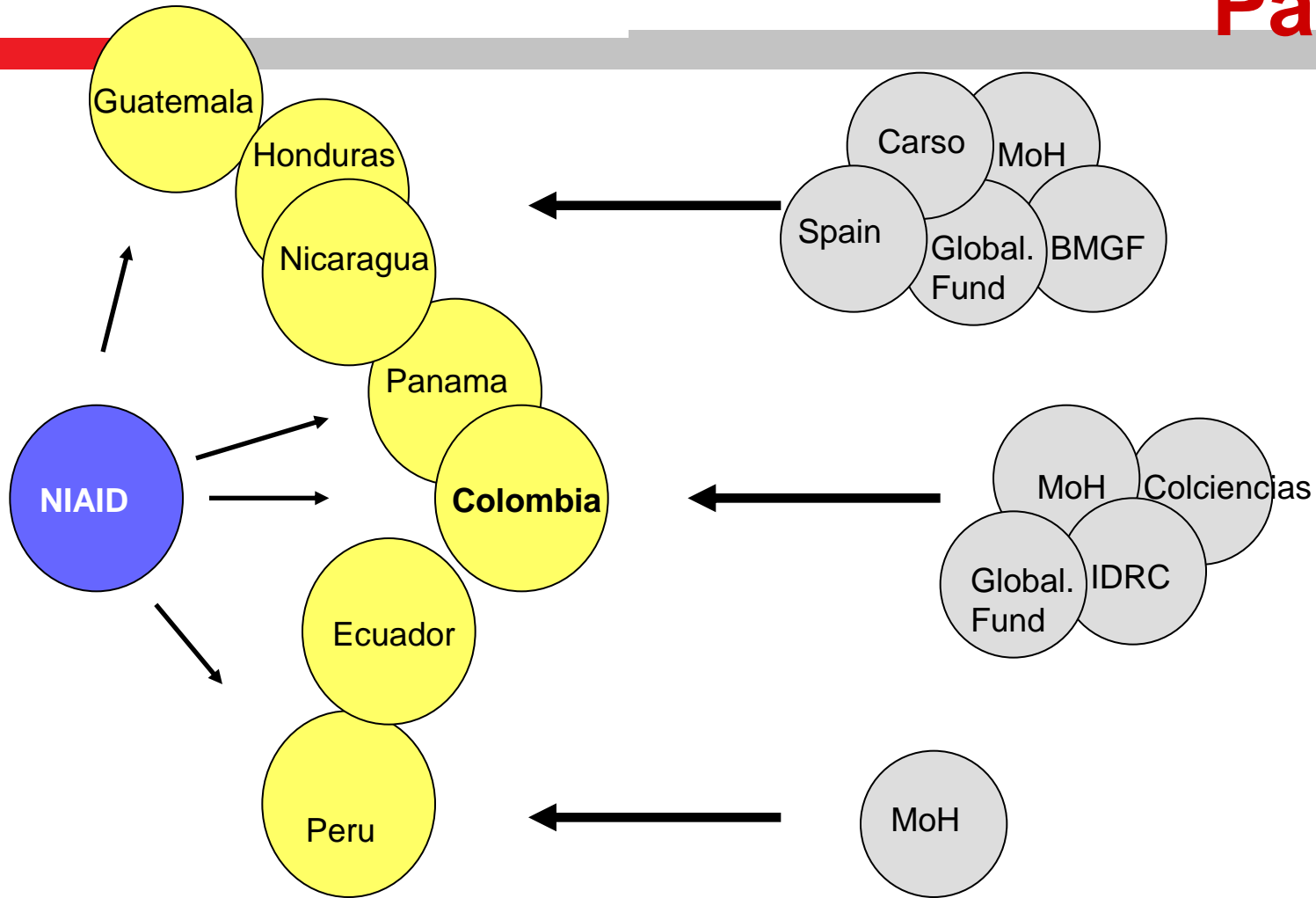


Caucaseco *P.vivax* vaccine development plan

2012 - 2013

1. Comparison of the susceptibility of naive and pre-immune subjects to infectious challenge with viable *P. vivax* sporozoites.
2. Phase 1 and Phase 2a Clinical Trial: Immunization of human volunteers with *P. vivax* irradiated sporozoites
3. Evaluation of protective efficacy of a synthetic vaccine derived from CS protein of *P. vivax*.

CLAIM Partners



International Scientific Collaboration

