



# Best Practices for Scientific Sustainability in a Research Institution

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# Research Institute for Tropical Medicine





- Established 1981 in Alabang, Muntinlupa City
- Attached agency of the Department of Health
- Primary mandate to conduct globally competitive research on infectious and tropical diseases
- Conducts training, clinical care, reference laboratory services and biologicals production for the prevention and control of infectious and tropical diseases of public health importance to the Philippines

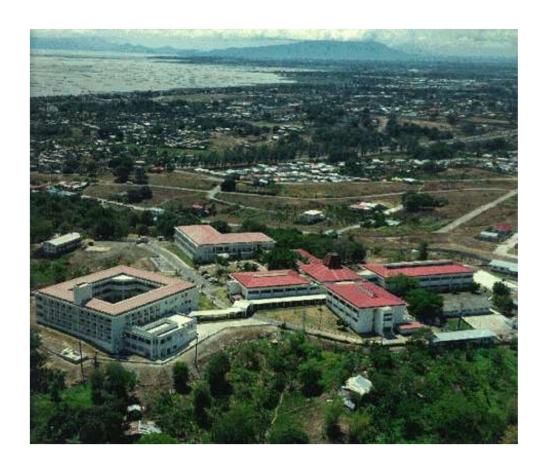








# Executive Order 674, 1981













#### Responsibilities

**Practices** 

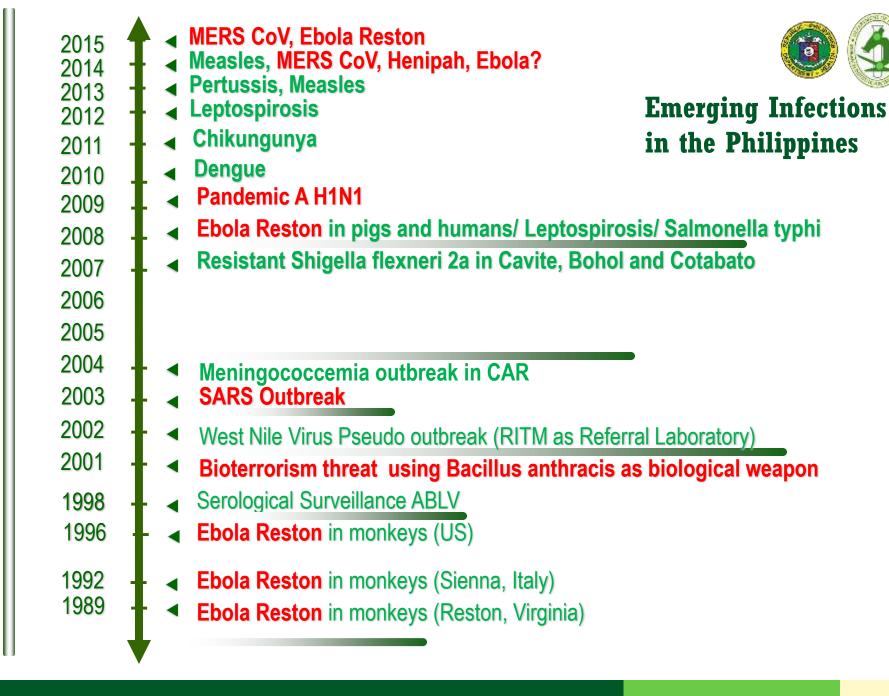
- Main research arm of DOH for infectious and tropical diseases (1981)
- National Reference Laboratories for infectious disease (2000)
- Designated Referral Hospital for Emerging and Reemerging Infections (2003)
- Biologicals production, storage and distribution of EPI vaccines in the country (1998)
- WHO TDR Regional Training Center for Good Research















### **Laboratory Research Division**

- Microbiology
- Virology
- Parasitology
- Immunology
- Molecular Biology
- Pathology, including Clinical Lab, EM & TTI-NRL
- Veterinary Research, including Special Pathogens
- Antimicrobial Resistance Reference Lab
- TB Reference Lab





#### **Clinical Research Division**

- Medical Department
- 50 bed capacity tertiary hospital for infectious diseases
- 8 negative pressure rooms, 2 ICU for highly infectious pathogens
- Rabies confinement
- Hospital support (Nursing, Dietary, Pharmacy etc)
- Epidemiology and Biostatistics, including Library





# **Study Groups**

- Acute Respiratory Infections
- Diarrhea
- Schistosomiasis
- Dengue
- HIV / AIDS
- Tuberculosis
- Malaria
- Leprosy
- Rabies
- Hepatitis
- Medical Department





#### **Institutional Review Board & RIO**

- FERCAP recognized & PHREB Level III accredited
- 11 members (5 MD, 2 PhD, 4 Lay members)
- Institutional Research Policy

#### Research & Innovation Office

- Strengthen research capacity of RITM investigators
- Knowledge management



# Key Achievements

- Translation of research output to public health policies
- Over 500 publications in peerreviewed international journals
- Rapid laboratory response to outbreaks and pandemic threats
- Clinical expertise in management of infectious and tropical diseases
- Established and expanded formal linkages with local and international institutions





### **Ongoing Researches**

#### 89 research projects

- 63 investigator-initiated
  - 33 basic biomedical research
  - 28 operations research
- 26 sponsor-initiated, both DOH/WHOcommissioned & private
  - 15 are industry sponsored clinical trials





# Challenges

- Lack of institutional research funding
- Dependent on highly competitive funding process and on commissioned grants, both public & private
- Brain drain
- Equipment and facilities
- Laboratory and clinical trial space
- Human resource competency





# Research funding

- Capacity building for investigator initiated research
  - Journal access
  - Grant proposal and protocol writing
- Collation and dissemination of funding opportunities (twice monthly RIO Newsletter)
- Local funding through the Philippine Council for Health Research & Development
- Strengthen and expand collaboration with international research and academic institutions





# **Funding Agencies**

**US National Institutes of Health** 

Centers for Disease Control and Prevention

Japan International Cooperation Agency

**UK Medical Research Council** 

Australian National Health Medical Research Council

USAID, AUSAID

WHO Tropical Disease Research

Bill & Melinda Gates Foundation

American Foundation for AIDS Research

Global Fund for TB, Malaria and HIV

Funding agencies in Canada, France, China etc





- Takeda
- Sanofi-Pasteur
- Pfizer
- LG Chem

#### Non-profit

- International Vaccine Institute
- PATH





# Research Funding

- Internal research funds
  - Research Policy mandates Institutional Fee
  - 6 small research grants in 2017
  - 5 grants in 2018, out of 10 submissions
  - P 300,000 for one year projects
  - Personnel and supplies





#### Lobby for institutional research support

- Health Policy Development and Planning Bureau
  - Facilitated by the HPDPB Research Division
  - >20 proposals from the various study groups
  - for evaluation by the RITM executive committee & submission to HPDPB
  - 2% DOH budget allocation for research





#### **Human Resource**

- Incentivise researchers through honoraria
  - Local researchers do more work than international collaborators, but are inappropriately compensated
  - DBM-DoF-COA circular on international projects respecting the approved budget
  - Challenging for publicly funded research (25% cap)
- Scientific career system
- Recognition (PRAISE Committee)
  - Publication award, international research award





#### **Investments in Human Resource**

- Capacity building
  - Manuscript writing
  - Policy brief workshop
  - GCP and ethics training
  - Project management and implementation
  - Dissemination of scholarship and fellowship opportunities

WHO TDR Regional Training Center for Good Research Practices





#### **Investments in Human Resource**

- Research-nurturing environment
  - Monthly brown bag lectures
  - Research symposia for visiting scientists
  - Annual Research Conference
  - Support for local conference travel of accepted abstracts
- Dedicated time (Writing leave) for proposal and manuscript development
- Support for publication fees (\$\$\$ per page)





#### **Institutional Resources**

- Epidemiology & Biostatistics
  - Study design, data collection tools, data management, sample size calculation, statistical analysis
- Molecular Biology core facility
  - Conventional and real-time PCR, Sanger sequencing, Next Generation Sequencing
- Immunology core facility
  - Monoclonal antibody production, antigen production and purification, ELISA, peptide mass fingerprinting
- Pathology (Histopath, EM)





# **Setting directions**

- Institutional Research Agenda
  - RITM Research Agenda established 2017, reviewed in 2018
  - 64 research topics from the study groups and departments
  - Aligned with NUHRA and DOH research agenda
  - Close coordination with Program Managers
- Research targets in Quality Management System
  - IPCR targets for ongoing IRB-approved research projects, proposals submitted, publications





# **Future-proof**

- Lobby for & acquire advanced technologies
- Expansion of research spaces





### **Summary**

- Funding opportunities are available for quality, timely and relevant research proposals
- Strength in collaboration
- Human resource is our greatest asset
- Shared responsibility to establish a nurturing and productive environment for researchers