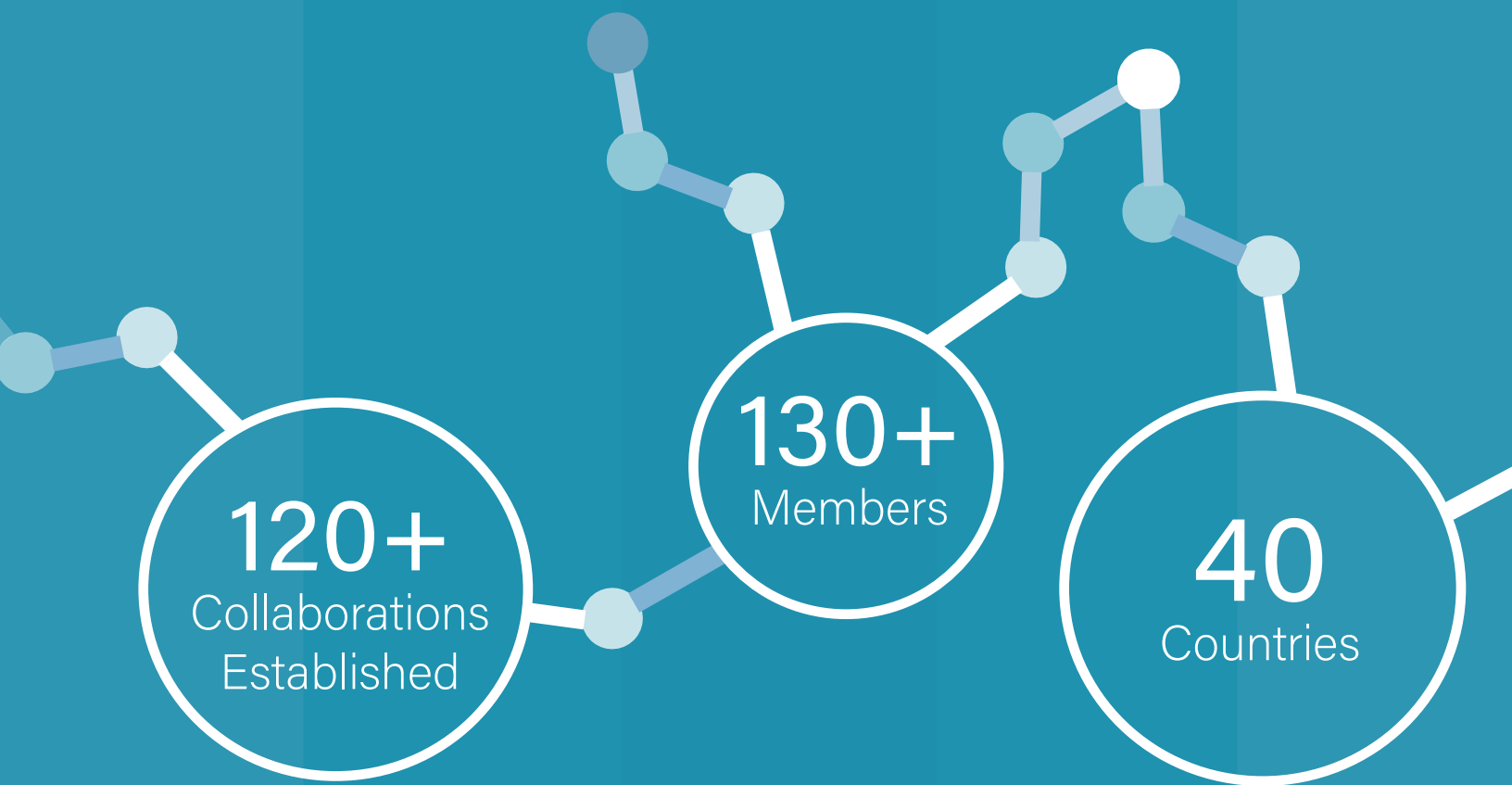




WIPO | Re:Search

Sharing Innovation
in the Fight Against
Neglected Tropical Diseases

BVGH Partnership Hub **ANNUAL REPORT** 2017



WIPO Re:Search

Dear WIPO Re:Search Members and Friends,

As we reflect on 2017, BVGH celebrates with you, the WIPO Re:Search community, the many exciting achievements this year brought. Membership has grown to include more than 130 organizations representing 40 countries. In 2017 alone, we welcomed 27 new Members to the Consortium and established 14 collaborations, with several others under discussion. Thirty-five collaborations are currently ongoing, seven of which have met key development milestones.

BVGH established and incorporated into our partnering processes criteria defining targeted WIPO Re:Search collaborations. In establishing these criteria, BVGH will streamline its partnering approach and consolidate efforts toward addressing the greatest unmet medical needs.

With guidance from the WIPO Re:Search Advisory Committee, WIPO and BVGH published the *WIPO Re:Search Strategic Plan, 2017-2021*. The Strategic Plan was launched during the 70th World Health Assembly and defines the Consortium's objectives over the next five years.

As we recognize our accomplishments in 2017, we look forward to 2018 and continuing to address some of the most pressing global health needs. Thank you for your ongoing support of WIPO Re:Search.



Jennifer Dent
President, BVGH

2017

Collaborations

GOAL

8 new targeted agreements

DELIVERED

14 agreements established and 35 ongoing collaborations managed

Diseases targeted by 2017 collaborations

Buruli ulcer



Chagas disease



HAT*



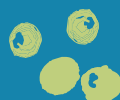
Leishmaniasis



Lymphatic filariasis



Malaria



Schistosomiasis



Soil-transmitted helminthiases



Tuberculosis



BVGH's 2017 collaboration objective was to establish eight new targeted agreements and to provide alliance management support to ongoing collaborations. BVGH exceeded its objective, establishing 14 new agreements, 12 of which met the criteria below. These agreements span nine diseases, and involve over 20 Members from ten countries.

Criteria for Targeted Agreements

1. Project in advanced stage of product development
2. Product addresses an unmet medical need
3. Novelty in approach/new validated target
4. Expected product aligns with target product profile (TPP)/target candidate profile (TCP)

2017 Partnerships Established

Partners	Disease	Asset Shared	Phase	Product
Alnylam, Fiocruz	Schistosomiasis	Reagent	Basic research	Data
Eisai, NEU, UCSD	Chagas disease, leishmaniasis	Compounds	Screening	Drug
Eisai, UCSD	Schistosomiasis	Compounds	Screening	Drug
FIND, IP Korea	Tuberculosis	Samples	Preclinical	Drug
GSK, UCB	Tuberculosis	Compounds	Hit identification	Drug
J&J, IDRI	Leishmaniasis, tuberculosis	Compounds	Screening	Drug
J&J, NIH	Tuberculosis	Compounds	Screening	Drug
J&J, U of T	Soil-transmitted helminthiases	Compounds	Screening	Drug
J&J, WUSTL	Tuberculosis	Compounds	Screening	Drug
Merck KGaA, UCSD	Multiple	Compounds	Screening	Drug
NIPD, CPC	Malaria	Samples	Basic research	Data
Takeda, NIH/NIAID	Malaria	Technology	Preclinical	Vaccine
Takeda, UCSF	Lymphatic filariasis	Compounds	Screening	Drug
USF, U of Yaoundé	Multiple	Expertise	Hit identification	Drug

Institution Acronyms

CPC: Centre Pasteur du Cameroun
 FIND: Foundation for Innovative New Diagnostics
 GSK: GlaxoSmithKline
 IDRI: Infectious Disease Research Institute
 IP Korea: Institut Pasteur Korea
 J&J: Janssen Research & Development

NEU: Northeastern University
 NIH: National Institutes of Health
 NIAID: National Institute of Allergy and Infectious Diseases
 NIPD: National Institute of Parasitic Diseases
 UCB: University of California, Berkeley
 UCSD: University of California, San Diego

UCSF: University of California, San Francisco
 U of T: University of Toronto
 U of Yaoundé: University of Yaoundé I
 USF: University of South Florida
 WUSTL: Washington University in St. Louis

Collaboration Highlights

New Drug Candidates for Soil-Transmitted Helminthiases

Janssen Research & Development (J&J) provided Professor Andrew Fraser, University of Toronto, with its Jump-stARter library. J&J's library is a set of 80,000 high-quality compounds that have been carefully selected to represent chemical diversity. Professor Fraser's lab has been screening the library against *C. elegans* to identify inhibitors of a unique metabolic pathway found in parasitic worms.

Microneedle Patch Application for a Malaria DNA Vaccine

Takeda Pharmaceutical Company Limited and the National Institute of Allergy and Infectious Diseases (NIAID) have entered into a joint venture to examine the feasibility of using Takeda's microneedle patch technology to administer a protein antigen-based, transmission-blocking malaria vaccine. The vaccine was developed by NIAID's Laboratory of Malaria Immunology and Vaccinology (LMIV). Under this agreement, Takeda and LMIV will first confirm the compatibility of the vaccine antigen and microneedle patch polymer. The NIAID scientists will subsequently evaluate the immunogenicity of the patch-administered vaccine in vivo.

2017

Member Recruitment

GOAL

6

“targeted” User Members

DELIVERED

27

User & Provider Members

BVGH recruited 27 new User and Provider Members in 2017. Nine of these new Members met “targeted” recruitment criteria. Sixteen new Members are based in a low- to middle-income country (LMIC).

“Targeted” Members

Institutes from select countries and regions
— Australia, East Africa, and the Indo-Pacific
— and organizations with the capacity to fill critical pipeline gaps.

Brazilian Biosciences National Laboratory

The Brazilian Biosciences National Laboratory (LNBio) is dedicated to cutting-edge biotechnology, healthcare, and life sciences research and development. LNBio scientists focus on understanding the molecular mechanisms of pathogenic bacteria's virulence, and drug development for parasitic diseases including Chagas disease and leishmaniasis.

New Members

Brazilian Biosciences National Laboratory
Centre for Plant Medicine Research
George Washington University
Instituto de Biología Molecular y Celular de Rosario
Institut de Recherche en Sciences de la Santé
Makerere University
Seattle Children's Research Institute
Social Medicine Institute, Rio de Janeiro State University
Structural Genomics Consortium
Texas Children's Hospital Center for Vaccine Development
University of Campinas
University of Dschang
University of Paris-Sud
University of São Paulo
University of South Carolina
University of Texas Southwestern Medical Center
University of Toronto
University of Zambia

New Members - Targeted

Eijkman Institute for Molecular Biology
Institut Pasteur de Madagascar
Institut Teknologi Bandung
International Centre for Diarrhoeal Disease Research, Bangladesh
James Cook University
Monash University
National Institute for Medical Research
Papua New Guinea Institute of Medical Research
University of Melbourne

New Member Spotlights

University of Toronto

The University of Toronto is Canada's leading institution of higher learning and one of the top research-intensive universities in the world. The University has been awarded \$1.2 billion in research funding. Research at the University includes using *C. elegans* as a model to study parasitic nematodes; investigating the role of *Leishmania* RNA virus-1 in the pathogenesis of cutaneous leishmaniasis; and developing synthetic surfactants that sensitize drug-resistant *Plasmodium*.

Eijkman Institute for Molecular Biology

The Eijkman Institute for Molecular Biology is focused on advancing basic and applied research into biomedicine, biodiversity, biotechnology, and biosecurity. The Institute's infectious disease investigators focus their research on mechanisms of antimalarial resistance, natural products drug discovery, malaria vaccine development, and dengue vaccine clinical trials.

Makerere University

Makerere University is one of Africa's oldest universities. Researchers at the University are focused on the molecular biology and clinical pharmacology of malaria. The Infectious Disease Institute at the College of Health Sciences performs an array of projects including the clinical assessment of tuberculosis diagnostics.



2017

IP Australia Funds in Trust

GOAL

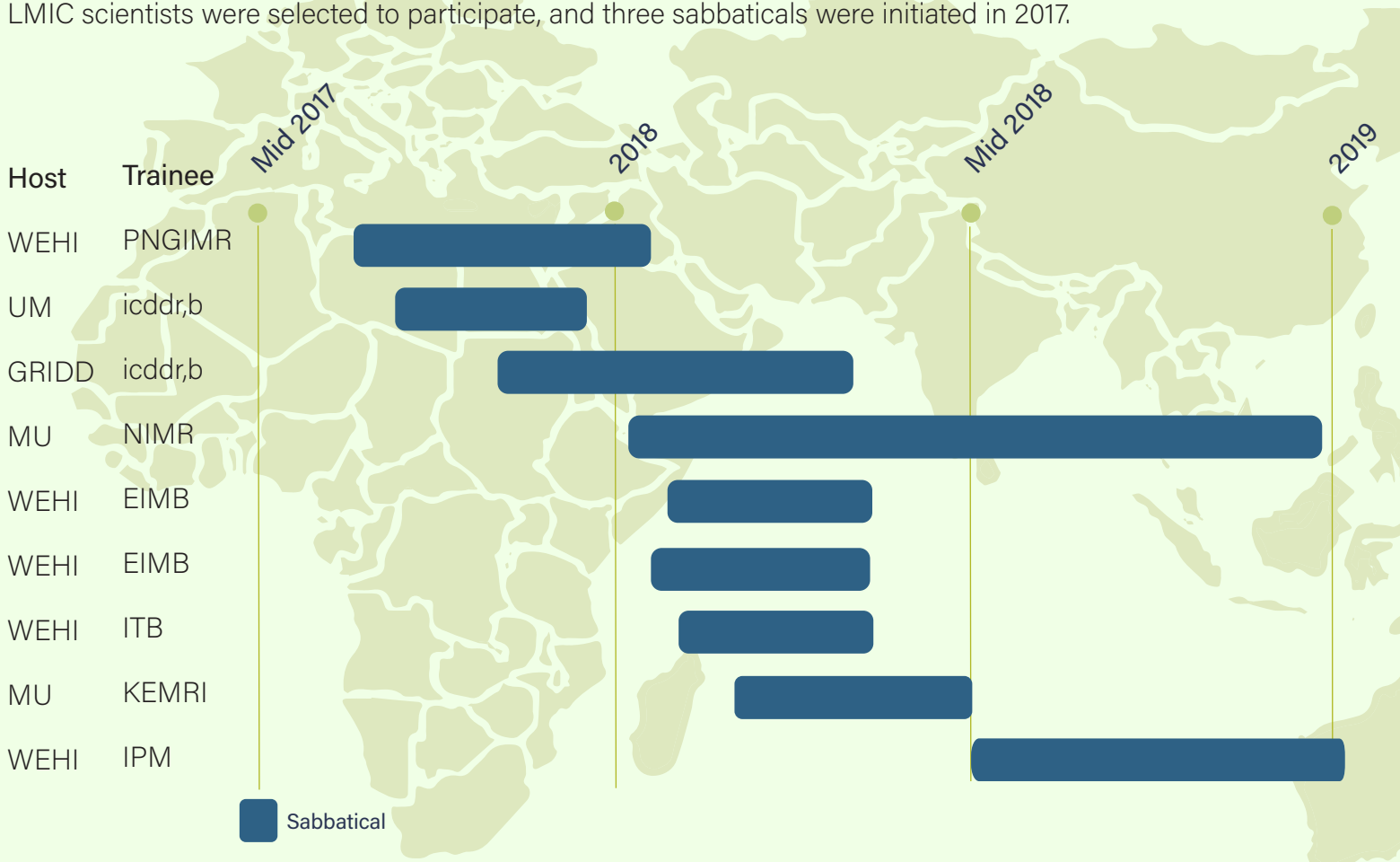
Manage LMIC sabbaticals

In 2016 the Government of Australia contributed funding to WIPO (Funds in Trust 2 [FIT2]) to support the training of East African and Indo-Pacific researchers at Australian research Institutes. In 2017 BVGH matched trainees with host organizations and developed plans for their research projects and training. Nine LMIC scientists were selected to participate, and three sabbaticals were initiated in 2017.

DELIVERED

9

LMIC sabbaticals coordinated



Completed FIT2 Sabbatical

Despite the success of Papua New Guinea's (PNG's) National Malaria Control Program, malaria remains a public health concern throughout the country. New approaches, including genomic tools, have the potential to bolster and revolutionize malaria control efforts.

To strengthen molecular surveillance and develop genomic tools for malaria control, Associate Professor Alyssa Barry of the Walter and Eliza Hall Institute of Medical Research hosted Ms. Dulcie Lautu, an experienced researcher from the Papua New Guinea Institute of Medical Research. During the sabbatical, Alyssa and Dulcie used novel genomic approaches to investigate drug resistant genes in parasites that were collected from PNG. Dulcie plans to build on this research, and is applying for a Ph.D. studentship focused on tracking antimalarial resistance in PNG.



Trainee Institutes

EIMB: Eijkman Institute for Molecular Biology
icddr,b: International Centre for Diarrhoeal Disease Research, Bangladesh
IPM: Institut Pasteur de Madagascar
ITB: Institut Teknologi Bandung
KEMRI: Kenya Medical Research Institute
NIMR: National Institute for Medical Research
PNGIMR: Papua New Guinea Institute of Medical Research

Host Institutes

GRIDD: Griffith Institute for Drug Discovery
MU: Monash University
UM: University of Melbourne
WEHI: Walter and Eliza Hall Institute of Medical Research

2017

Communications

GOAL

- Continue activities to increase awareness of WIPO Re:Search
- Present and represent WIPO Re:Search at five conferences
- Develop WIPO Re:Search strategic plan

DELIVERED

- Published monthly *WIPO Re:Search Snapshot* and *2017 WIPO Re:Search Mid-Year Report*
- Increased WIPO Re:Search social media presence
- Presented and represented WIPO Re:Search at six conferences
- Published the *WIPO Re:Search Strategic Plan, 2017-2021*

WIPO Re:Search Strategic Plan

2021

In partnership with WIPO and with guidance from the WIPO Re:Search Advisory Committee, BVGH published the *WIPO Re:Search Strategic Plan, 2017-2021*. The Strategic Plan defines activities across four strategic goals:

1. Leverage intellectual property (IP) assets to advance R&D for neglected tropical diseases (NTDs), malaria, and tuberculosis
2. Advance promising R&D collaborations
3. Build global capacity for IP management and biomedical R&D
4. Communicate the beneficial role of IP in innovation for NTDs, malaria, and tuberculosis

2017



BVGH

2018

Goals

IP Australia FIT2

Manage FIT2 sabbaticals

Develop and publish FIT2 summary report

Collaborations

Establish eight targeted collaborations

Manage ongoing collaborations

Advance prioritized collaborations

Communications

Develop a WIPO Re:Search communications strategy

Bolster WIPO Re:Search communications

Increase awareness of WIPO Re:Search:

- Events and meetings
- Newsletter readership
- Publications
- Social media



WIPO | Re:Search

Sharing Innovation
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Neglected Tropical Diseases

Developed in cooperation with our Sponsors:



Merck KGaA
Darmstadt, Germany

