

Sharing Innovation in the Fight Against Neglected Tropical Diseases

### COHRED Meeting on Fair Research Contracting

### Balancing pressure to produce results with capacity building needs in LMICs

Jennifer Dent BIO Ventures for Global Health

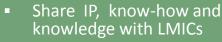
World Intellectual Property Organization Secretariat

BIO Ventures for Global Health Partnership Hub Administrator

## Product development versus capacity building?

#### Prioritize Product R&D

- Focus and fund product research and development including repurposing of drugs and improving formulations
- Use experienced researchers versus training new personnel



- Host and mentor developing country scientists
- Foster North-South & South-South collaborations

Build R&D Capacity

- Investing in both product development and capacity building initiatives is critical in LMICs
- Funders and partnering organizations must find the right balance while supporting both priorities
- WIPO Re:Search catalyzes partnerships that allow organizations to pursue both paths in parallel





## **BIO Ventures for Global Health (BVGH)**

- BVGH works to create an enabling environment for the biopharmaceutical industry to engage in global health
- Connecting innovators with critical information and resources
- Facilitating collaboration and neglected tropical disease product development through WIPO Re:Search
- Assessing state-of-the-art science and technology and its application to global health product development





# What is WIPO Re:Search?

- Led by the World Intellectual Property Organization (WIPO) in collaboration with BIO Ventures for Global Health (BVGH) and its Members.
- The Consortium includes leading pharmaceutical companies, academic and nonprofit research institutions, governmental, and nongovernmental organizations.
- More than 60 Members worldwide.
- A platform that facilitates neglected tropical disease collaboration around the sharing of intellectual property, know-how, expertise, capacity building and other related resources.





#### **Current WIPO Re:Search Members**



## WIPO Re:Search Assets

- WIPO Re:Search provides a searchable, public database of intellectual property, know-how and other resources made available by Members, including:
  - Compounds
  - Compound libraries
  - Technologies
  - Know-how and expertise
  - Hosting and mentoring scientists at various research and development sites





# **Select Member Contributions**

- AstraZeneca (AZ)
  - Host and mentor researchers working on NTD targets at AZ facilities
  - Screening of targets against AZ compound libraries
- GlaxoSmithKline (GSK)
  - Contributed full antimalarial dataset (13,500 compounds)
  - Tres Cantos Open Lab Program hosting scientists working on NTD projects
- UCSF
  - Hosting LMIC scientists to support capacity building and knowledge sharing
  - Accessing compounds and libraries for NTD screening
- University of Kansas
  - Hosting and training LMIC scientists in drug development processes and formulation development
  - Leveraging relationship with the Eisenhower Foundation to secure capacity building support





### WIPO Re:Search is focused on 19 Neglected Tropical Diseases, Malaria and TB

**Buruli Ulcer Chagas disease** Cysticercosis **Dengue fever Dracunculiasis Echinococcosis Endemic treponematoses (Yaws)** Foodborne trematode infections Human African Trypanosomiasis Leishmaniasis Leprosy

Lymphatic filariasis

**Onchocerciasis** 

Rabies

Schistosomiasis

Soil transmitted helminthiasis

Trachoma

Podoconiosis

Snakebite









# How does WIPO Re:Search work?

WIPO Re:Search is a *voluntary* Consortium governed by its Members and a set of Guiding Principles



Members fall into three categories:

- Providers—contribute IP, knowhow and capacity building support
- Users—access IP and resources
- Supporters—support mission

BVGH facilitates partnerships between members to drive R&D results and build capacity in LMICs



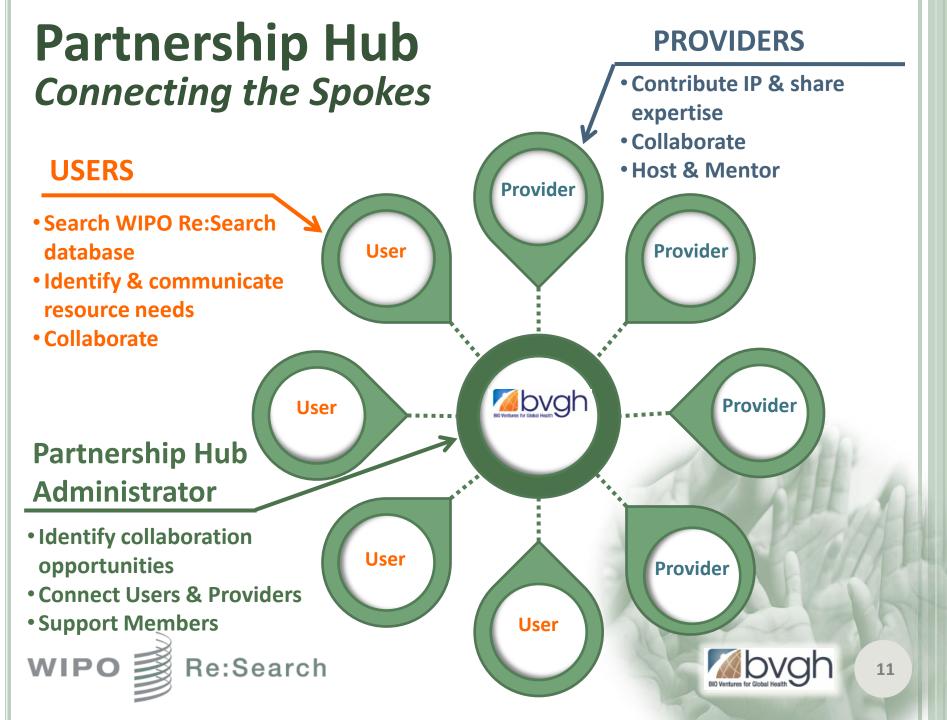


## How does BVGH meet Member needs?

- Partnership Hub activities include:
  - Fielding specific requests from Members regarding access to IP, expertise or capacity building
  - **Building knowledge** of Member contributions, research programs and experience needs
  - Proactively identifying partnership opportunities by matching contributions and resources with Member's needs
  - Facilitates collaboration around product development and hosting of scientists between Members
  - Organizing meetings, teleconferences
  - Acting as a conduit and resource for collaborators
  - Continually presenting **new partnership ideas**







# **Collaborations: divide and conquer**

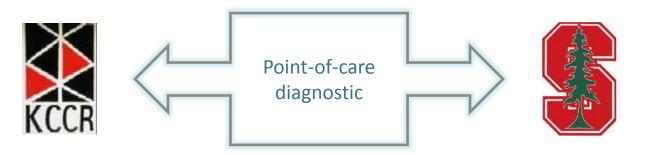
- Facilitate LMIC's access to expertise, tools, and capabilities
  - eg) iThemba and AstraZeneca collaboration
- BVGH connects Members with LMIC researchers and organizations
  - PATH and KCCR
  - UCSF and KCCR
- Expanding WIPO Re:Search membership in LMICs is a priority for WIPO and BVGH
  - Currently have 13 Members from LMICs enrolled







### **KCCR-Stanford Collaboration on Helminthes**



- Background:
  - Researcher team at Stanford University are developing a diagnostic for soiltransmitted helminthes.
  - Kumasi Centre for Collaborative Research (KCCR) joined WIPO Re:Search in July 2012.
  - BVGH facilitated conversations between KCCR and Stanford researchers.
  - Stanford research team interested in obtaining stool samples from KCCR and Kwame Nkrumah University (Kumasi, Ghana) to support development of their point-of-care diagnostic.
  - KCCR connected to PATH to explore capacity building arrangements.
- Status:
  - Agreement in place to share samples and jointly publish results of the collaboration





### **Merck-UCSF Collaboration on Schistosomiasis**



- Background:
  - Dr. Conor Caffrey inquired about gaining access to HMGCoA reductase inhibitors (Statins) to screen against *Schistosoma mansoni*, the causative parasite of schistosomiasis.
  - BVGH connected Dr. Caffrey with Merck scientists to explore a possible collaboration.
  - Terms of collaboration agreement in which Merck will provide a library of compounds for repurposing as anti-parasitic agents agreed upon.
- Status:
  - Confidentiality disclosure agreement in place.
  - Research agreement and terms agreed upon contract under development.





## Funding – supporting R&D and capacity building

- Many researchers are open and willing to collaborate but lack the necessary grants to proceed
- Funders provide much needed support for both R&D collaborations and capacity building arrangements
- Access to information about funding is key
  - BVGH has developed a Funders Database to assist Members in easily locating grant opportunities relevant to NTD research
- WIPO engages with Supporter members to encourage capacity building funding support including:
  - Australian Government Funding to support capacity building







# **BVGH Funders Database**

#### Goals of Database:

- Provide WIPO Re:Search members a valuable source of funding information
- Web accessible, user-friendly, and global in scope
- Support NTD product development and capacity building

#### Database Content:

- Currently have 53 opportunities in the database
- Represents approximately 20 individual funding agencies
- Each record contains several descriptive categories (see table)



Category	Content
Organization	Who is/are the sponsor(s)?
Disease Area(s)	Does the grant focus on a specific disease(s)?
Product Focus	Is the grant restricted to certain types of products, e.g., vaccines, medical devices?
Stage of Research	What stage is the research, e.g., basic, clinical?
Funding Information	How much funding is available? How long is the grant period?
Funding Level	Categorized into one of ten funding levels to allow efficient identification of grant funding. All currencies are converted to EURO for direct comparison of maximum funding levels.
Eligibility	Details from sponsor website or program guide.
Eligible Entities	Highlights the types of entities, e.g., individual researchers, research institutions, small-to-medium entities (SMEs) eligible for funding.
Geographic Region(s)	Are there geographic restrictions to the funding?
Collaboration	Are collaborations required or encouraged?
Time frame	When are applications due and/or reviewed?
Contact Information	Who should members contact for more information or with questions?
Links	Web links to program details
Attachments	Relevant files, i.e., applicant guidelines, call for proposals, etc.



# WIPO Re:Search Funders Database

- Funders provide much needed support for both research and development collaborations and capacity building arrangements
- Easy access to funding resources and eligibility criteria
- The Funders Database allows WIPO Re:Search members to identify funding opportunities and then leverage the Partnership Hub to facilitate collaborations that establish eligibility for funding:
  - USCF researcher is interested in hosting LDC scientists to work on NTD projects together





## Thank you!





