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Building a healthy nation through research

# South African Medical Research Council (MRC) & WIPO Re:Search

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**Third Trilateral Symposium  
WHO/WTO/WIPO  
Geneva - 05 July 2013**



**South African Medical Research Council**  
BUILDING A HEALTHY NATION THROUGH RESEARCH





*“The objects of the MRC are, through research, development and technology transfer, to promote the improvement of the health and the quality of life of the population of the Republic and to perform such other functions as may be assigned to the MRC by or under this Act.”*

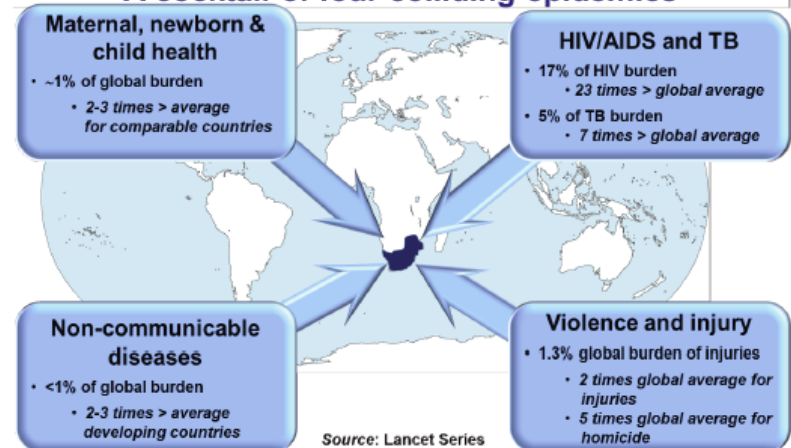
*South African Medical Research Council Act, 1991  
Act 58 of 1991*



## • South Africa's burden of disease

Cause of death	Deaths	%
HIV/AIDS	180,870	29.4
Hypertensive heart disease	39,272	6.4
Lower respiratory infections	38,576	6.3
Cerebrovascular disease	37,913	6.2
Tuberculosis	37,519	6.1
Diarrhoeal diseases	26,564	4.3
Ischaemic heart disease	24,510	4.0
Interpersonal violence	20,155	3.3
Road injuries	18,166	3.0
Diabetes mellitus	13,667	2.2
COPD	11,458	1.9
Nephritis/nephrosis	9,130	1.5
Top 12 causes	457,800	74.3
Total	615,788	100.0

### The quadruple burden of disease in South Africa: A cocktail of four colliding epidemics



- **We embrace the WIPO Re: Search Guiding Principles for membership and have become an active member**
- **Our ethos is to support and facilitate any research that has the potential to improve the quality of lives, in South Africa and elsewhere in the world.**
- **We believe disease and therapies have no geographical boundaries.**



# What is *WIPO Re:Search*?

- Platform for sharing IP assets and resources in order to catalyze research and development on NTDs, malaria, and tuberculosis
- “Beyond Patents” – shared IP assets and resources include pharmaceutical compounds, technologies, know-how, data, research facilities, hosting arrangements, etc.

## How does it work?

- Members upload assets and resources onto the searchable, public *WIPO Re:Search* database
- Partnership Hub administrator actively facilitates specific collaborations between *WIPO Re:Search* Members

## Royalty-free Licensing

- Licenses for research and manufacture – must be royalty-free to anyone, anywhere  
“Providers agree to grant Users royalty-free licenses to this Intellectual Property for research and development, anywhere in the world, of products, technologies or services, for the sole purpose of addressing public health needs for any or all NTDs in LDCs.” (*WIPO Re: Search* Guiding Principles, page 3)
- Licenses governing terms of sale – must be royalty-free in LDCs, sales in other markets may be negotiated  
“Providers agree to grant Users royalty-free licenses to this Intellectual Property anywhere in the world to make or have made such products, technologies or services, and to import and export, for the sole purpose, to sell or have sold, these products in LDCs.” (*WIPO Re: Search* Guiding Principles, page 3)



# Why WIPO? WIPO Brings Multiple Stakeholders

## Start

External stakeholders and private sector approached WIPO.



## Why?

They wanted to make certain aspects of their intellectual property available for research on NTDs, malaria and TB.



## Collaboration

Pharmaceutical industry, multilateral organizations, academia, and NGOs.



## WIPO's Capabilities

Intellectual property management and presence within the UN organizations and relationships throughout the world.



# Who is involved?

WIPO

BVGH

WHO

Companies

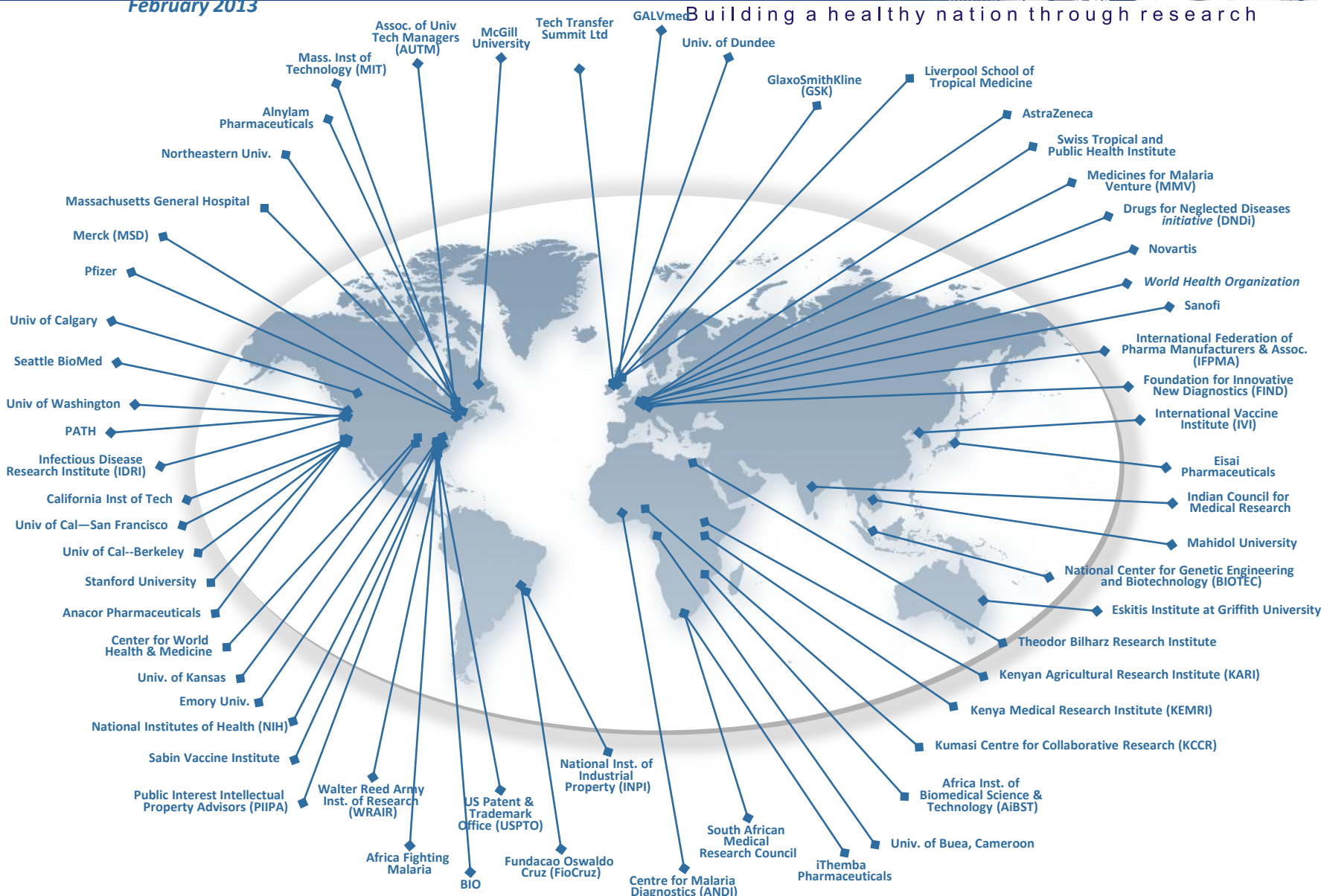
Research  
Institutes

Academics





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## Global comprehensive database

WIPO-secretariat maintained database

Technology and related information

Publicly accessible

## Partnership hub

Administered by BIO Ventures for Global Health

- Connect partners
- Develop relationships
- Drive usage

- Technical advice
- Maximize value of WHO technical support

## Supporting services

Indirect support for licensing negotiations

Technical advice from WHO

Ongoing recruitment of new providers + users



# BIO Ventures for Global Health

*The WIPO Re:Search Partnership Hub Administrator*

The Partnership Hub is the partnering component of WIPO Re:Search

- Facilitate collaborations between Members to drive the development of drugs, vaccines and diagnostics for NTDs, malaria, and tuberculosis
- Identify and recruit new Members
- Actively engage with Members to learn about contributions and research needs
- Build relationships with Members to support their partnering interests



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# How does BVGH establish Collaborations?

- **Fields specific requests from Members regarding access to IP and/or expertise**
- **Builds knowledge of Member contributions and research programs**
- **Proactively identifies partnership opportunities by matching contributions and resources with Member's research needs and presents opportunities for consideration**
- **Facilitates collaboration between Members:**
  - **Organizing meetings, teleconferences**
  - **Acting as a conduit and resource for collaborators**





# Partnership Hub

## PROVIDERS

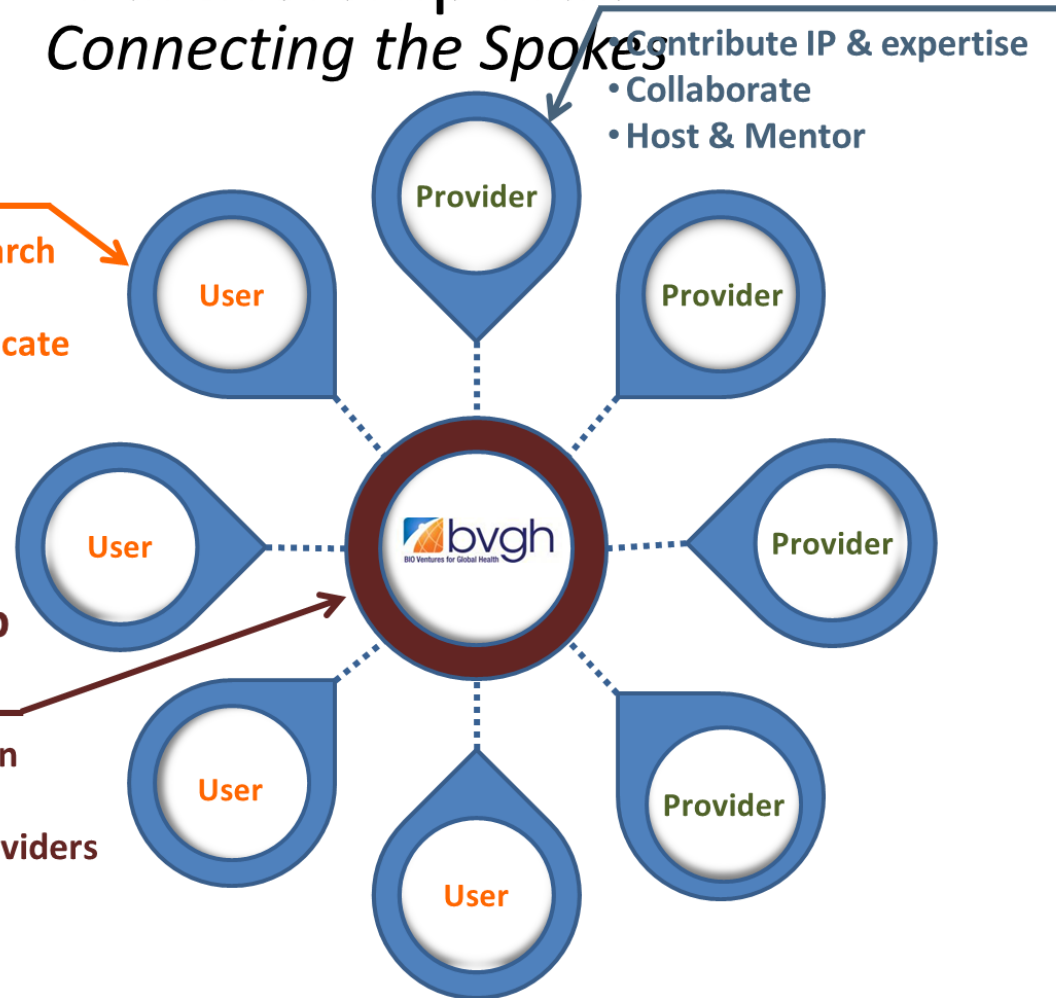
*Connecting the Spokes*

### USERS

- Search WIPO Re:Search database
- Identify & communicate resource needs
- Collaborate

### Partnership Hub Administrator

- Identify collaboration opportunities
- Connect Users & Providers
- Support Members



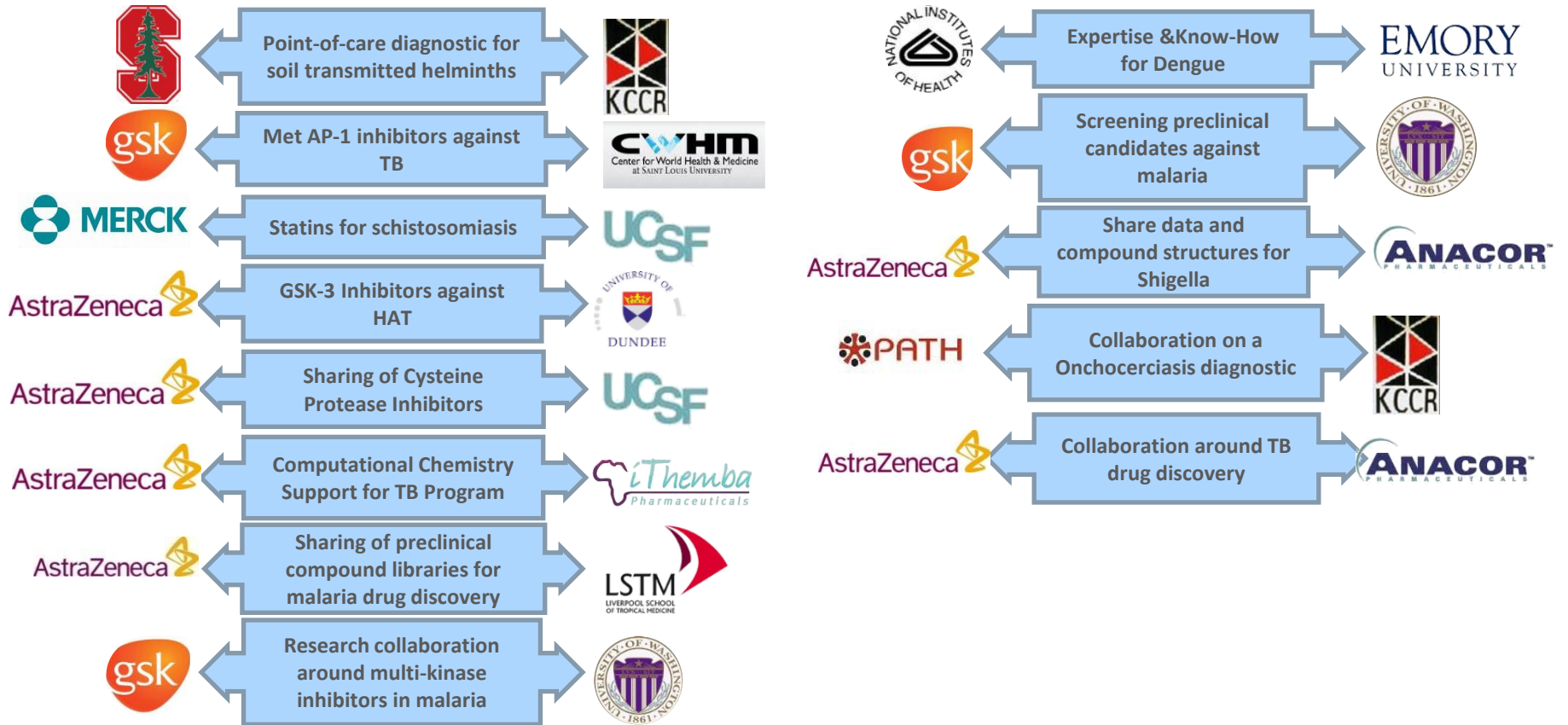


## WIPO Re:Search Collaborations

- **Examples of research agreements**
  - **material transfer agreements – compound libraries, compounds**
  - **confidentiality agreements - sharing data, know-how and other confidential information**
  - **Building expertise and capacity through hosting and mentoring arrangements**
- **License agreements**
- **Other agreements to support the development of products for NTDs, malaria and tuberculosis**



# Sixteen Agreements through WIPO Re:Search





# NIH-Emory Collaboration



- **Background:**

- BVGH presented WIPO Re:Search to Emory faculty.
- Chemistry professor shared his interest in accessing biology expertise for his RNA-dependent RNA polymerase inhibitor program for dengue fever.
- BVGH presented a couple of partnership options and the NIH was selected.
- BVGH connected Emory chemist with NIH Program Officer for acute viral diseases, to explore accessing biology expertise and in-kind support.

- **Current Status:**

- Non-Clinical Evaluation Agreement has been established and collaboration is underway.
- Compounds screened – hits against Rift Valley Fever

# KCCR-Stanford Collaboration



Point-of-care  
diagnostic  
for detection of soil  
transmitted  
helminths



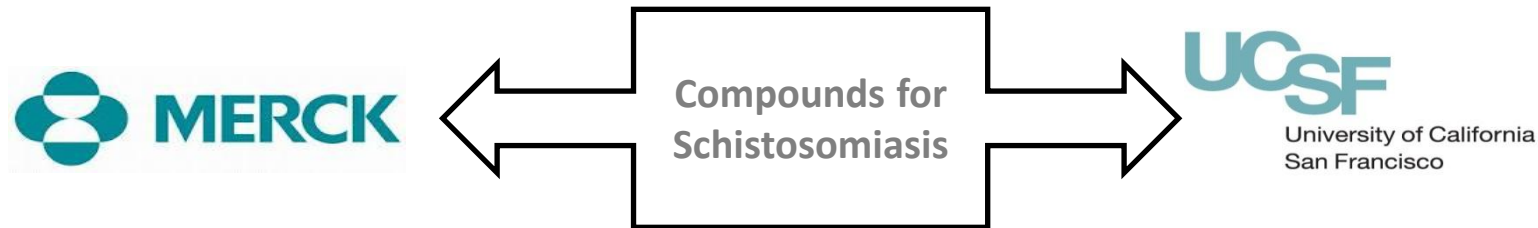
- **Background:**

- BVGH presented the Partnership Hub at Forum 2012 and met with the Scientific Director of the Kumasi Centre for Collaborative Research (KCCR) in Ghana.
- Following a BVGH meeting at Stanford, a researcher reached out to the Partnership Hub to request support in accessing stool samples from Africa containing soil transmitted helminths.
- The Stanford Researchers are developing an antibody based point of care diagnostic for soil-transmitted helminths and required relevant samples for further development and evaluation of their assay.
- BVGH facilitated conversations between KCCR and Stanford researchers.

- **Current Status:**

- Agreement to share samples established

# Merck-UCSF Collaboration



- **Background:**

- UCSF researcher inquired about gaining access to specific compounds to screen against *Schistosoma mansoni*, the causative parasite of schistosomiasis.
- BVGH connected the researcher with Merck scientists to explore a possible collaboration. Initial discussion was followed by a face-to-face meeting where agreement terms were established.
- Merck is providing a library of compounds for repurposing as anti-parasitic agents.

- **Status:**

- Confidentiality disclosure agreement in place
- Collaborative study agreement has been signed and compounds have been shipped to UCSF for screening



# Hosting Agreements – Funded by Gov’t of Australia

Hosting of African Researcher	Stanford University Theodor Bilharz Research Institute, Egypt	<b>Potential Hosting Arrangement:</b> Stanford University Med School hosting TBRI scientist working on pathology studies of schistosomal bladder carcinogenesis and fibrosis. Began June 2013
Hosting of African Researcher	University of Buea, Cameroon and University of Lagos, Nigeria and Novartis.	Novartis is considering hosting a senior researchers from Cameroon and Nigeria their Basel research facility. Candidates have been selected.
Hosting of African Researcher	Kumasi Center for Collaborative Research in Tropical Medicine (KCCR)/Kwame Nkrumah University and UCSF	<b>UCSF will host</b> a researcher for a year. Training will focus on capacity building and drug discovery for schistosomiasis.

Hosting LMIC Researchers	University of Bamako, Mali Novartis	<b>Exploratory Phase:</b> Novartis is considering hosting senior researchers from Africa at their Basel site. A researcher at the University of Bamako has expressed interest.

Hosting of graduate students	MRC South Africa AstraZeneca	<b>Exploratory Phase:</b> Resumes of two graduate students have been forwarded for consideration to AstraZeneca's tuberculosis drug discovery research center in Bangalore. The goal is to enable students from LMIC countries to gain pharma experience in tuberculosis drug discovery.
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# CONCLUSION



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- **MRC founding member of WIPO Re:Search**
- **WIPO Re:Search meets MRC's needs in R&D and Capacity Building**
- **Using IP for Development by addressing Health Needs**



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# THANK YOU

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