WIPO Re:Search – Open Innovation for NTDs

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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 (BVGH) actively facilitates specific collaborations between WIPO Re:Search Members
21 NTDs and conditions, plus malaria & TB

<table>
<thead>
<tr>
<th>Buruli Ulcer</th>
<th>Lymphatic filariasis</th>
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<tbody>
<tr>
<td>Chagas disease (American trypanosomiasis)</td>
<td>Onchocerciasis</td>
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<td>Cysticercosis</td>
<td>Rabies</td>
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<td>Dengue/dengue hemorrhagic fever</td>
<td>Schistosomiasis</td>
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<td>Dracunculiasis (guinea-worm disease)</td>
<td>Soil transmitted helminthiasis</td>
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<td>Echinococcosis</td>
<td>Trachoma</td>
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<td>Endemic treponematoses (Yaws)</td>
<td>Podoconiosis</td>
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<td>Foodborne trematode infections</td>
<td>Snakebite</td>
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<td>Human African trypanosomiasis</td>
<td>Malaria</td>
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<td>Leishmaniasis</td>
<td>Tuberculosis</td>
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<td>Leprosy</td>
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WIPO’s Mandate

WIPO Development Agenda (2007)
Focus on, inter alia, Technology and Knowledge Transfer, Capacity Building, and Licensing of IP to foster development in developing and LDCs.

UN Millenium Development Goals (2000) – Health-Related Objectives
Goal 4: Reduce Child Mortality
Goal 5: Improve Maternal Health
Goal 6: Combat HIV/AIDS, Malaria and Other Diseases

WIPO’s “niche” is specific and targeted:
Francis Gurry, WIPO Director General: “WIPO Re:Search is a wonderful opportunity for capacity-building in R&D and innovation, sharing and creating connections which can in turn lead to the advancement of knowledge and discoveries.” (October 2011)
Value proposition

1. Galvanizing industry and the public sector

2. Moving the discourse to IP as a tool to foster innovation in unmet health needs

3. Contributing to a “networked global health innovation system”

4. Demonstrating creative open-based IP approaches within the current IP system
Licensing Terms

• Royalty-free to anyone in the world, for R&D and manufacture.

• Licenses for the sale of resulting products:
  – royalty-free for sales in all LDCs
  – sales in other developing countries to be negotiated in good faith and based on prevalence of disease and economic development.

• Licensees allowed to retain ownership of new IP and are encouraged to license to third parties through WIPO Re:Search

• No reach-through claims to new intellectual property, materials or derivatives of materials generated by licensee, but licensor may ask for a non-assertion to such new intellectual property.
Licensing Terms

*WIPO Re: Search Guiding Principles, page 3*

“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. … to make or have made such products, technologies or services, and to import and export. . . .”

“Consider in good faith the issue of access to these products for all developing countries, … taking into account the economic development of the countries and the need to facilitate access to disadvantaged populations.”

“Users shall be allowed to retain ownership of and apply for registration of intellectual property rights generated as they deem fit, but shall be encouraged to license to third parties through *WIPO Re:Search* new intellectual property rights generated under an agreement made pursuant to membership in the Consortium under terms consistent with these Guiding Principles.”

“For the avoidance of doubt, Providers will not make any claims to rights in new intellectual property, materials or derivatives of materials generated by a User under a license agreement made pursuant to membership in this Consortium, but may require such User not to assert such new intellectual property rights against the Provider.”
**Structure**

**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
- Facilitate ‘hosting’ arrangements

**Supporting services**
- Technical advice from WHO
- Link to other WIPO Services, e.g., Training, access to journals
- Ongoing recruitment of new providers + users
Database content

- Patents (incl. 1’200 families, >20’000 patents)
- Pre-clinical candidate compounds
- Screening or Hits Data
- Enabling technology platforms
- Registered/Marketed Products
- Hit-to-Lead Data
- Diagnostic Tools
- Other Types of Data or Services
BIO Ventures for Global Health

**Mission:** Building partnerships to accelerate the development of new drugs, vaccines, and diagnostics to address the unmet medical needs of the developing world.

*We have a unique perspective.*

Expertise in Industry  Knowledge of Global Health
BVGH – The Partnership Hub Administrator

- Recruit new members – 80+ members
- Identify and facilitate collaborations between members – 54 agreements
- Connect members
- Increase awareness of WIPO Re:Search
  - Presentations
  - Publications
  - Newsletters
  - Media
  - Outreach
Establishing Collaborations

• BVGH proactively identifies partnership opportunities by matching contributions and resources with member’s research needs

• Fields specific requests from members regarding access to IP and/or expertise

• Builds knowledge of member contributions and research programs

• Facilitates collaboration between members:
  • Organizing meetings, teleconferences
  • Facilitating ongoing communication between members and establishing mutual interest
Select WIPO Re:Search Agreements

- Reagent sharing to support dengue research
- Met AP-1 inhibitors against TB
- Computational Chemistry Support for TB Program
- Compound libraries for screening against multiple NTDs
- GSK-3 Inhibitors against HAT
- Compounds for schistosomiasis
- Research collaboration around multi-kinase inhibitors in malaria
- Collaboration around TB drug discovery
- Computational support for compounds against human African trypanosomiasis
- Sharing of compounds to support anti-diarrheal product development
- Sharing inhibitors of M. tuberculosis for screening against Buruli ulcer

- Sharing of preclinical compound libraries for malaria drug discovery
- Compound screening and malaria drug expertise sharing
- Share data and compound structures for Shigella
- Sharing libraries and compound screening
- Identifying targets for anti-helminthic compounds
- Sharing of calcium channel blockers
- Sharing of proteasome inhibitors
- Compound sharing to support anti-diarrheal product development
- Advice and knowledge sharing for peptide formulation
- Advice and knowledge sharing for anti-fungal formulation
KCCR-Stanford Collaboration

Background:
- WIPO and BVGH meet Ellis Owusu-Dabo, Scientific Director of the Kumasi Centre for Collaborative Research (KCCR) in Ghana, at the WIPO Re:Search Forum in Cape Town, April 2012
- Following a BVGH meeting at Stanford, a researcher request support in accessing stool samples from Africa containing soil transmitted helminths
- BVGH facilitated conversations between KCCR and Stanford researchers

Status:
- Agreement to share samples and publish jointly established
- Collaboration is underway
meet Ellis Owusu-Dabo, Scientific Director of the Kumasi Centre for Collaborative Research (KCCR), Ghana
NIH-Emory University collaboration

Background:
- BVGH presented WIPO Re:Search to Emory faculty including Dennis Liotta.
- Prof. Liotta 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 Dennis with Christina Cassetti, Dengue Program Officer, at the NIH to explore accessing biology expertise and in-kind support.

Status:
- Non-Clinical Evaluation Agreement has been established and collaboration is underway.
meet Dr. Dennis Liotta, Professor of Chemistry at Emory University (Atlanta, Georgia, USA)
Combating Neglected Diseases

A shared way forward offers hope

Global co-operation may provide many of the answers, writes Andrew Jack

its value as an adjuvant to boost the immune response to two of its experimental vaccines, for Chagas disease and leishmaniasis.

“Adjuvants are super hard to come by because they are closely guarded by the major vaccine manufacturers,” says Peter Hotez, specialist tropical disease institute in Singapore and GlaxoSmithKline (GSK) in Spain. But a number, them easier to take. That partly reflects the lengthy periods required for drug and vaccine testing.
Questions?

For more information:

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www.wipoReSearch.org