Dear WIPO Re:Search Members and Friends,

Happy New Year!

It comes as no surprise to the WIPO Re:Search community that antimicrobial resistance (AMR) has risen to the forefront of the global public health agenda. Since the Consortium’s inception in 2011, BVGH has established numerous WIPO Re:Search collaborations aimed at developing novel drugs to combat drug resistant tuberculosis, outpace emerging antimalarial resistance, and more.

Although continued drug development is needed, there is mounting evidence that vaccines are necessary to prevent and circumvent AMR. For example, a recent article demonstrated that if children across 75 countries were vaccinated against pneumonia, the infections prevented would result in 11 million less days of antibiotic use annually. Given the relative costs of vaccines and antibiotics, vaccinations are also a cost-effective approach to AMR control.

Beyond drugs, BVGH is also catalyzing vaccine development. Notably, through WIPO Re:Search, researchers at Takeda Pharmaceutical Co. Ltd. and the National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH) have formalized a partnership to assess an injection-free administration of a malaria vaccine candidate. Please continue reading this Snapshot to learn more.

I am pleased to welcome our two newest Members, the University of Texas Southwestern Medical Center and the University of South Carolina.

As we dive into the New Year, BVGH thanks you for your continued support and participation in WIPO Re:Search. And as always, please forward this Snapshot to your colleagues and reach out to us with any partnering requests or ideas.

Sincerely,

Jennifer Dent
President, BVGH
Accelerating Diagnostic Development for Tuberculosis
The Foundation for Innovative New Diagnostics (FIND), McGill International TB Centre, Stop TB Partnership, Unitaid, and WHO have launched the TB Diagnostics Critical Pathway, an online tool for tuberculosis diagnostic developers. The Pathway describes the key activities and considerations developers should address at each stage of development – from concept to launch and scale-up. The tool, which also highlights relevant references and stakeholders, serves as a valuable resource for diagnostic developers and the broader tuberculosis community.

WIPO Re:Search Statistics

To view a current summary of the WIPO Re:Search agreements by disease and stage of development, click here. Click here to view a complete list of WIPO Re:Search Members.

Cornerstones of Collaboration

Micro-Needle 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 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.
We are pleased to announce that the University of Texas Southwestern Medical Center (UT Southwestern) and the University of South Carolina (USC) have joined WIPO Re:Search.

**University of Texas Southwestern Medical Center**
Since its formation in 1943, the University of Texas Southwestern Medical Center (UT Southwestern) has grown from a small medical college into a multifaceted academic institution recognized for its excellence in educating physicians, biomedical scientists, and healthcare personnel. UT Southwestern is home to internationally recognized physicians and scientists including six Nobel Laureates, 22 members of the National Academy of Sciences, and 18 members of the National Academy of Medicine. Research at UT Southwestern includes basic biology of *Schistosoma* worms and drug discovery for leishmaniasis, malaria, and soil-transmitted helminthiases.

**University of South Carolina**
The University of South Carolina (USC) was founded in 1801, and today boasts more than 200 years of academic leadership. USC is renowned for its global contributions to research. In 2013, USC faculty were awarded over $220 million in sponsored research funding. Faculty from USC’s School of Public Health and School of Medicine are carrying out research in drug discovery for Chagas disease, HAT, and drug resistant bacterial infections, and are also working to elucidate the pathobiology and immunology of dengue.

**Public Interest Intellectual Property Advisors: Supporting Antimalarial Drug Development by Addressing IP Inequities in LMICs**
Professor Thanat Chookajorn, a malaria researcher from Mahidol University in Thailand, sought external assistance in processing legal documents and filing patent applications related to his antimalarial drug development partnership with a multinational pharmaceutical company. BVGH introduced Professor Chookajorn to Public Interest Intellectual Property Advisors (PIIPA), a global leader in providing highly customized, pro bono IP legal counsel to developing countries. PIIPA connected Professor Chookajorn with IP experts at a major United States-based law firm, who are supporting his IP development efforts and helping him to overcome barriers to his full and equal participation in international collaborations. For more information, please see PIIPA’s recent newsletter.

**WIPO at the London School of Hygiene and Tropical Medicine**
Charles Randolph (Head, Global Health, WIPO) and Tom Bombelles, (Head of NGO and Industry Relations, WIPO) visited the London School of Hygiene and Tropical Medicine (LSHTM) to discuss LSHTM’s interest in joining WIPO Re:Search. During their visit, Charles and Tom briefed 14 LSHTM faculty members and strategic research officers on WIPO Re:Search and WIPO’s broader mission.

Charles Randolph (left) and Tom Bombelles (center) meeting with (from left to right) Dr. Hannah Whiteman (Head of Strategic Research), Dr. Alexandra Anderson (Strategic Research Officer), and Dr. Florence Gohard (Strategic Research Officer) of LSHTM.
Burroughs Wellcome Fund Collaborative Research Travel Grant
The Burroughs Welcome Fund is providing travel funds to scientists at U.S. or Canadian degree-granting institutions. Grants must be used for domestic or international travel to a lab to learn new techniques, or begin or continue a collaboration that addresses a biomedical question. **All proposals must be cross-disciplinary in nature.**

- **Funding amount:** $15,000 USD
- **Funder:** Burroughs Wellcome Fund
- **Deadline:** February 1, 2018
- **Eligibility:** Open to applicants with a Ph.D. in mathematics, physics, chemistry, computer science, statistics, or engineering who are interested in investigating topics in the biological sciences. Biologists holding a doctorate degree and are interested in collaborating with physical scientists, mathematicians, engineers, chemists, statisticians, or computer scientists to answer biological questions are also eligible to apply. Grants will be made to U.S. or Canadian degree-granting institutions only.

For more information about BVGH FundFinder, please email Cathy Manner.

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Human African Trypanosomiasis
Due to persistent and consolidated control efforts, the number of newly-reported human African trypanosomiasis (HAT) cases has dropped 85% since 2000. With less than 3,000 cases reported in 2015, the WHO has targeted HAT for elimination by 2020. Despite recent successes, HAT continues to threaten millions of individuals across Africa.

Current control efforts rely on detection, treatment, and vector control. Unfortunately available drugs are difficult to use and are not universally effective against all *Trypanosoma brucei* subspecies and disease stages.

To support HAT elimination, the development of drugs with reduced complexity and demonstrated efficacy across stages and subspecies is needed. This Snapshot highlights selected inhibitors that have demonstrated repurposing potential against HAT:

- Casein kinase inhibitors
- Phosphodiesterase V (PDEV) inhibitors
- Potassium channel blockers
- Proteasome inhibitors

For more information or to discuss potential collaborations regarding these inhibitors, please contact Cathy Manner.
# Upcoming Global Health Events

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<thead>
<tr>
<th>Dates</th>
<th>Event Name</th>
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<th>Web Link</th>
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<tbody>
<tr>
<td>Mar. 1 - 4</td>
<td>18th International Congress on Infectious Diseases</td>
<td>Buenos Aires, Argentina</td>
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<td>Mar. 11 - 16</td>
<td>Gordon Research Conference: Driving Antibacterial Discovery and Development to Address the Clinical Demands of the Next Decade</td>
<td>Ventura, California</td>
<td>Website</td>
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<tr>
<td>April 15 - 20</td>
<td>7th Multilateral Initiative on Malaria (MIM) Pan African Malaria Conference</td>
<td>Dakar, Senegal</td>
<td>Website</td>
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*Known as EMD in the US and Canada | **Known as Merck in the US and Canada

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Our mailing address is:
401 Terry Avenue N., Seattle, WA 98109