Driving R&D for neglected tropical diseases, malaria, and tuberculosis through global cross-sector collaborations
Dear WIPO Re:Search Members and Friends,

In 2011, the World Intellectual Property Organization (WIPO) and BIO Ventures for Global Health (BVGH) issued a call for action with the launch of the WIPO Re:Search Consortium. We knew there were untapped opportunities to catalyze public-private sector innovation in the fight against neglected tropical diseases (NTDs), malaria, and tuberculosis.

Today, the Consortium is 140+ Members strong, with Members in Africa, Latin America, Australia and Asia-Pacific, Europe, and North America. More than 155 collaborations between pharmaceutical companies and global scientists have advanced drug, vaccine, and diagnostic research and development (R&D). The WIPO Re:Search model has proven its success as a sustainable, efficient framework for sharing intellectual property across sectors and geographies to address unmet medical needs.

WIPO Re:Search would not be possible without the engagement and support of our pharmaceutical company Members: Eisai Co., Ltd; GSK; Johnson & Johnson; Merck KGaA, Darmstadt, Germany; MSD*; Novartis; Pfizer; and Takeda. Their commitment to sharing proprietary compound libraries and other valuable assets is accelerating R&D and empowering scientists in low- and middle-income countries (LMICs) to conduct impactful NTD, malaria, and tuberculosis research.

WIPO Re:Search has come a long way in the eight years since our launch. Our commitment to the health of underserved communities has never wavered. As we look back at our accomplishments in 2019, we also look ahead to a fruitful year of collaborations in 2020.

Thank you, Members and friends, for answering our call for action. The advancements we are making together will benefit the lives and livelihoods of over a billion people around the world.

Jennifer Dent
President & CEO
BIO Ventures for Global Health

* MSD is a trademark of Merck & Co., Inc., Kenilworth, NJ, USA
Eisai is proud of our engagement in WIPO Re:Search, including drug discovery collaborations with outstanding academic researchers who have been highlighted in publications and presentations by the Consortium leadership. We are honored to be a founding company Member and to share our commitment to improving patients’ quality of life, particularly in LMICs, through creation and delivery of innovative medicines.

Dr. Katsura Hata
Eisai Co., Ltd.

WIPO Re:Search’s innovative resource-matching model enables translation of novel ideas into new solutions in a risk-reducing, cost-effective manner.

BVGH proactively coordinates cross-sector WIPO Re:Search collaborations in alignment with Member interests and provides end-to-end alliance management support to help ensure successful outcomes.

BVGH and WIPO share WIPO Re:Search successes with leaders and decision-makers worldwide to increase Member visibility and open doors to new opportunities.
Through our Open Innovation Initiative, Merck KGaA, Darmstadt, Germany is committed to addressing access challenges around affordability by sharing our proprietary knowledge to accelerate early discovery for disease areas where we do not have competencies or expertise, such as onchocerciasis or Buruli ulcer. Our aim is to contribute to a vibrant pipeline for these diseases as well as capacity building and health system strengthening in the countries where many of these diseases are endemic.

Dr. Frédérique Santerre
Merck KGaA, Darmstadt, Germany

WIPO Re:Search is a game changer for NTD, malaria, and tuberculosis drug development. Thanks to the Consortium and the partnerships that BVGH has facilitated over the last few years, my team at the University of Buea has been able to achieve what some of our predecessors could not accomplish in a decade.

Prof. Fidelis Cho-Ngwa
University of Buea, Cameroon

Building the Capacity of LMICs to Engage in Global Health R&D

- Access to cutting-edge resources and expertise not available in LMICs
- Skills development to enable in-country R&D and international collaborations
- New partnership and funding opportunities catalyzed by international publications and presentations

Dr. Artur Cordeiro
Brazilian Biosciences National Laboratory, Brazil

My time at Novartis, coordinated through WIPO Re:Search, was an amazing experience and the two most productive weeks of 2019. Without BVGH, it would have been very difficult to make this important connection to industry.
These new WIPO Re:Search collaborations align with BVGH’s targeted partnering strategy by addressing the greatest unmet medical needs through innovative approaches that maximize the likelihood of product success and uptake.
Collaboration Highlights

Repurposing Pharmaceutical Compounds to Accelerate Development of Antiparasitic Drugs

Prof. Fabrice Boyom at the University of Yaoundé aims to develop novel drugs for human African trypanosomiasis, leishmaniasis, and malaria by targeting critical parasite metabolic pathways. With assistance from BVGH, Prof. Boyom applied for funding from Medicines for Malaria Venture (MMV) and the African Academy of Sciences’ Grand Challenges Africa. After he expressed interest in obtaining compounds that may inhibit metabolic pathways of interest, BVGH connected him through WIPO Re:Search to Eisai Co., Ltd., which supported his funding proposals by sharing dihydrofolate reductase inhibitors and potassium channel blockers. As a result, Prof. Boyom received both the MMV and the Grand Challenges Africa awards. He has since identified promising hits and is working with collaborators to conduct further tests.

Combatting Chagas Disease, a Significant Public Health Problem in Latin America

Novartis partners to support drug discovery for neglected diseases and to help foster research capabilities in LMICs. Novartis’ partnership with Dr. Artur Cordeiro at the Brazilian Biosciences National Laboratory (LNBio) — the first WIPO Re:Search collaboration for the Brazilian institute — merged those interests to conduct collaborative research focused on Chagas disease. Dr. Cordeiro previously discovered compounds that inhibit two key Trypanosoma cruzi enzymes and are active against the parasite within human cells. To assist Dr. Cordeiro in identifying additional active compounds to move his drug discovery work forward, BVGH introduced him to Novartis. Dr. Cordeiro screened thousands of proprietary Novartis compounds through the company’s Facilitated Access to Screening Technologies (FAST) Lab program. In addition to having access to Novartis’ facilities, he also benefited from technical support and mentorship from scientists at the Novartis Institutes for BioMedical Research. Dr. Cordeiro returned to LNBio with data for both drug targets and new chemical structures with good activity.

Welcome, New Members!

We grew our membership to more than 140 organizations across over 40 countries, with targeted recruitment in Latin America and Africa.

- Institut Pasteur de Montevideo
- International Centre for Genetic Engineering and Biotechnology
- London School of Hygiene & Tropical Medicine
- Puerto Rico Science, Technology & Research Trust
- Umaru Musa Yar’adua University
- University of Cape Coast
- University of Puerto Rico

Improving Early Diagnosis of the World’s Deadliest Infectious Disease

Although tuberculosis is the leading infectious disease killer in the world, early diagnosis and treatment can prevent most deaths. Through WIPO Re:Search, BVGH connected investigators at the Public Health Research Institute at Rutgers New Jersey Medical School (PHRI) with crystallography experts at the Seattle Structural Genomics Center for Infectious Disease at Seattle Children’s Research Institute to increase the sensitivity of PHRI’s novel tuberculosis diagnostic assay.
Through WIPO Funds-in-Trust (FIT), BVGH organized 20 fellowships — totaling 100+ months of training — for scientists from 11 LMICs. Key outcomes and impacts included grant funding (over US $750,000 for one fellow), promotions, international publications and presentations, and new research collaborations.
**Fellowship Highlights**

Dr. Deus Ishengoma received the prestigious Alan J. Magill Fellowship at the 2019 Annual Meeting of the American Society of Tropical Medicine & Hygiene (ASTMH). The Magill Fellowship will assist his efforts to synthesize research findings to support evidence-based policies in malaria elimination/eradication. Dr. Ishengoma conducted his WIPO Re:Search fellowship at Monash University in Australia, working on metabolite and protein signatures of drug-resistant malaria parasites.

Dr. Martha Yahimbu's research leverages Papua New Guinea's unique medicinal plants and marine organisms to develop better treatments for diseases prevalent in the country. During her fellowship, Dr. Yahimbu honed her skills in compound screening, natural product isolation and purification, and mass spectrometry at Johnson & Johnson. She immediately applied those skills on a human African trypanosomiasis drug discovery project at the neighboring University of California (UC) San Diego. Dr. Yahimbu also gained leadership, project management, data analysis, and oral and written communications experience during her sabbatical. Now back in Papua New Guinea, she is applying her learnings to lead international drug R&D projects, secure grant funding, and train junior investigators. With new relationships established, Dr. Yahimbu anticipates continuing her drug discovery collaborations with Johnson & Johnson and UC San Diego.
Communications

BVGH shares WIPO Re:Search successes with global audiences to increase program and Member visibility and engage strategic partners

Publications by BVGH

- Peer-reviewed publications in *Tropical Medicine and Infectious Disease* feature 13 WIPO Re:Search collaborations
  - WIPO Re:Search: Catalyzing Public-Private Partnerships to Accelerate Tropical Disease Drug Discovery and Development
  - WIPO Re:Search: A Platform for Product-Centered Cross-Sector Partnerships for the Elimination of Schistosomiasis
- WIPO Re:Search Partnership Stories 2016-2019
- WIPO Re:Search Advancing Product Development brochure
- Partnership Hub 2018 Annual Report, 2019 Mid-Year Report, Snapshot newsletter, and social media promotion

Presentations by BVGH

- WIPO Re:Search Members shared successes at a BVGH-organized panel at the European Congress on Tropical Medicine and International Health
- BVGH gave a talk at the IEEE Global Humanitarian Technology Conference

People are Talking about WIPO Re:Search

- A Seattle Perspective of DFAT as a Funder, by Lisa Cornish (*WIPO Re:Search Fellowship Program feature*), Devex
- Public-Private Partnerships: How to Unleash Africa’s Innovation Potential, IFPMA Seminar

WIPO Re:Search’s successes in advancing research and development for the world’s neediest populations demonstrate that intellectual property facilitates, rather than hinders, innovation. BVGH, as an independent non-profit, and WIPO, as a prominent UN agency, are powerful and credible voices in the global dialogue on intellectual property policy.

Sharon Reiche, Senior Corporate Counsel, Intellectual Property Policy, Pfizer

Peer-Reviewed Publications by WIPO Re:Search Investigators

- Malaria Detection by Third-Harmonic Generation Image Scanning Cytometry, *Analytical Chemistry*
- Kelch 13 Propeller Gene Polymorphism Among *Plasmodium falciparum* Isolates in Lagos, Nigeria: Molecular Epidemiologic Study, *Tropical Medicine & International Health*
Collaborations
Establish 14 targeted collaborations, including 2 involving Latin American Members
Support over 50 ongoing collaborations

Recruitment
Recruit 3 new Latin American Members

Communications
Promote WIPO Re:Search through:
- Publications
- International conference presentations
- Partnership Hub Snapshot newsletter
- Partnership Hub Mid-Year and Annual Reports
- Social media

WIPO Re:Search Fellowship Program
Launch the third round of the program (FIT3) and manage FIT3 sabbaticals
Developed in cooperation with our funding Members:

*Known as EMD in the USA and Canada | **MSD is a trademark of Merck & Co., Inc., Kenilworth, NJ, USA