

A Novel IP- and Knowledge-Sharing Consortium to Accelerate Neglected Tropical Disease R&D Collaborations



WIPO | Re:Search

Sharing Innovation
in the Fight Against
Neglected Tropical Diseases

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Partner Organizations

Providers	Potential Users
<ul style="list-style-type: none">•Alnylam Pharmaceuticals•AstraZeneca•California Institute of Technology•Center for World Health & Medicine•Drugs for Neglected Diseases <i>initiative</i>•Eisai•Fundação Oswaldo Cruz (Fiocruz)•GlaxoSmithKline•Massachusetts Institute of Technology•Medicines for Malaria Venture•MSD (Merck & Co.)•Novartis•PATH•Pfizer•Sanofi•South African Medical Research Council•Swiss Tropical and Public Health Institute•University of California, Berkeley•University of Dundee•U.S. National Institutes of Health	<ul style="list-style-type: none">•Center for World Health & Medicine•Drugs for Neglected Diseases <i>initiative</i>•Emory University•Fundação Oswaldo Cruz (Fiocruz)•Themba Pharmaceuticals•Medicines for Malaria Venture•Sabin Vaccine Institute•South African Medical Research Council•University of California, Berkeley•University of California, San Francisco•University of Dundee
Supporters	
<ul style="list-style-type: none">•Association of University Technology Managers•Fundação Oswaldo Cruz (Fiocruz)•Indian Council for Medical Research•International Federation of Pharmaceutical Manufacturers & Associations•Kenya Medical Research Institute•Licensing Executive Society International•Mahidol University•South African Medical Research Council•U.S. Patent and Trademark Office	

The World Health Organization (WHO) serves as the Technical Advisor to WIPO.

Selected Resources Available

Alnylam Pharmaceuticals

Alnylam has provided its entire RNAi patent estate. RNAi technology is useful in the discovery of potential therapeutic targets which could become human therapeutics.

AstraZeneca (AZ)

AstraZeneca's full patent portfolio is available. AZ is also contributing specific assets such as DNA gyrase inhibitors. AZ will host and mentor researchers working on NTD targets at AZ facilities. Academic researchers will also have the opportunity to screen their targets against AZ compound libraries.

DNDi

DNDi provides lead series optimization data for molecules targeting pathways in Chagas, Leishmaniasis and HAT. Datasets contributed include Lichochoalcones analogues and modified 2-substituted quinolones.

Eisai

Eisai has contributed seven lead compounds including a squalene synthase inhibitor and phosphodiesterase inhibitor which have potential in development as drugs against parasitic protozoa (e.g., Chagas, leishmaniasis, HAT).

GlaxoSmithKline (GSK)

GSK has contributed its full antimalarial dataset (13,500 compounds) as well as access to GSK's Tres Cantos Open Lab program. GSK has also contributed hundreds of active patents for NTDs. Abandoned patents are also available as important know-how entry points for third party programs.

Merck

Merck has provided three lead series anti-parasitic drug targets, including long chain fatty acid elongase, casein kinase and histone deacetylase that are relevant to parasitic NTDs.

Novartis

Novartis has provided one antimalarial and one anti-tuberculosis screening dataset.

PATH

PATH has contributed a vaccine formulation technology that prevents freeze damage that can occur during vaccine transport.

Pfizer

Pfizer has contributed three general vaccine-related technologies, five compound screens relevant to helminth parasite infections and one compound screen related to parasitic protozoa.

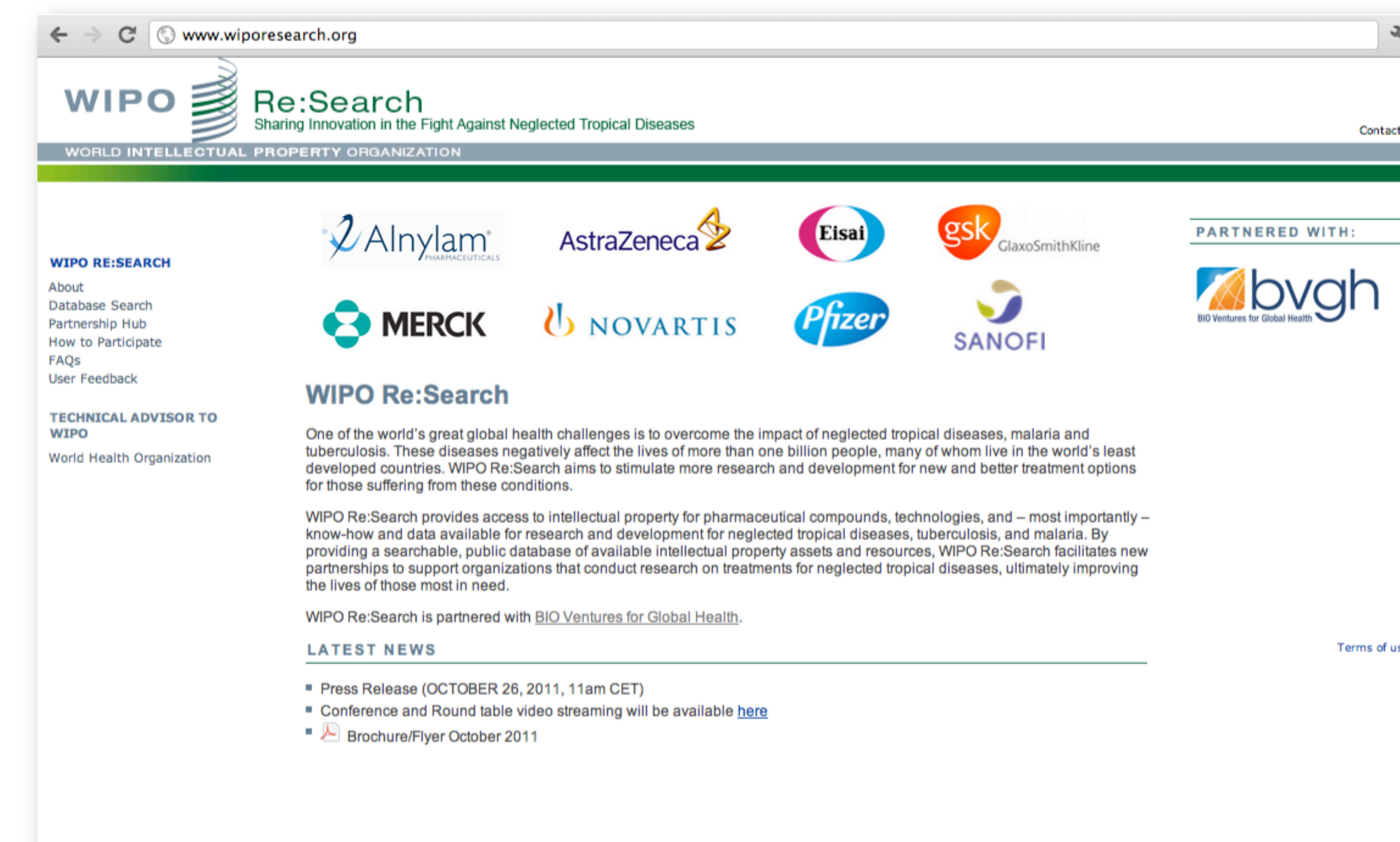
Sanofi

Sanofi has contributed patents around antibiotic analogs, including Erythromycin compounds, their process of preparation, and their application as medicaments. Sanofi's contribution also contains additional Information - including Clinical Data and Pharmacological data on the active ingredients and samples provided for R&D purposes of existing compounds including pentamidine, eflornithine, artesunate, melarsoprol, meglumine antimonate, and rifampicine.

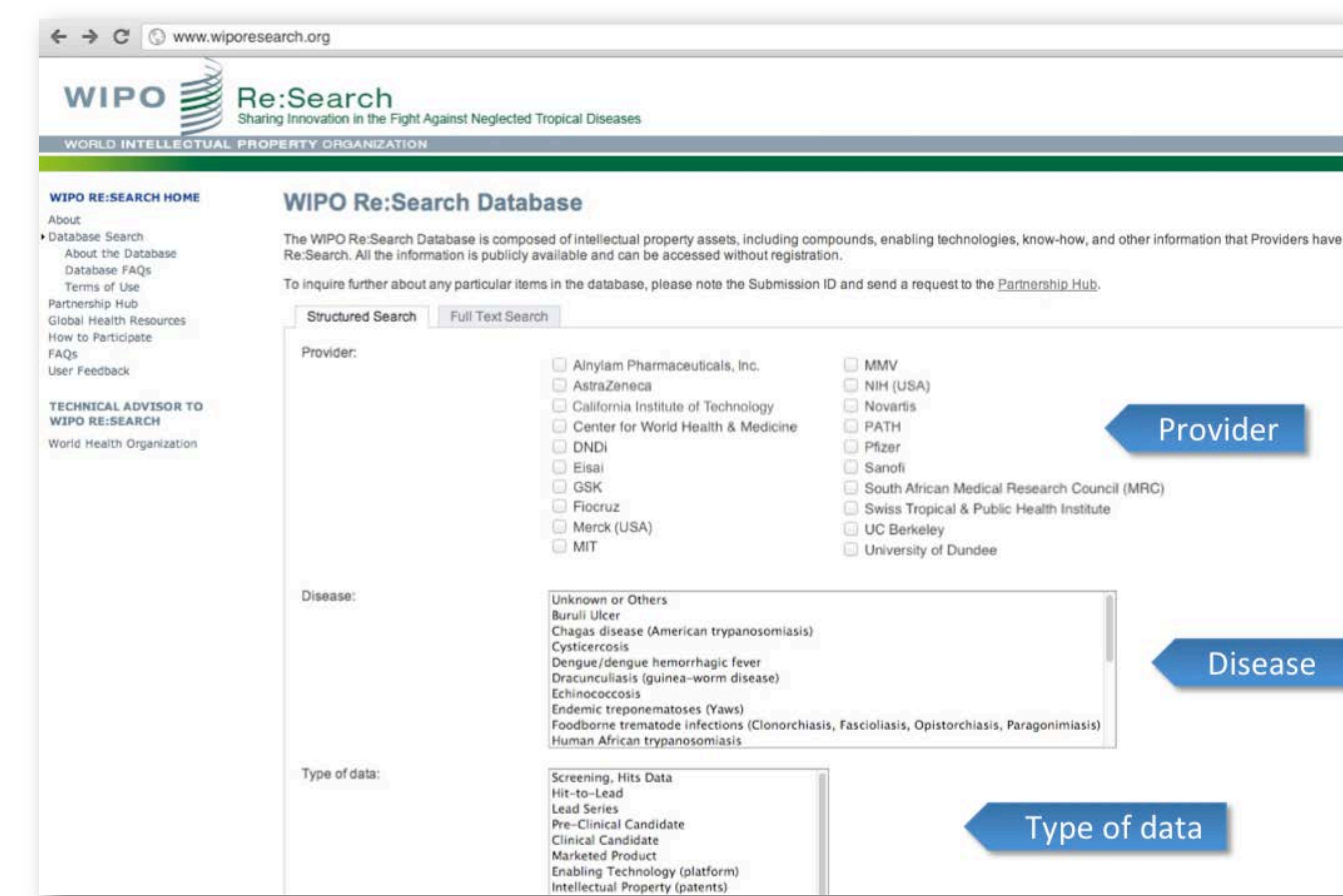
U.S. National Institutes for Health

U.S. NIH has provided 72 patents representing diverse technologies relevant for neglected disease drug, vaccine, and diagnostic development. The contributions include a series of cysteine protease inhibitors that have potential for development of drugs against targets in Chagas and HAT and a diagnostic assay for detection of lymphatic filariasis before symptoms appear.

Interactive Website – www.wipoReSearch.org



Searchable Database



Guiding Principles

Members are committed to the licensing of Intellectual Property contributed to the Consortium under the following terms, subject to individually negotiated licensing agreements – see full terms www.wipo.int/research/en/about/guiding_principles

- 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 least developed countries (LDCs).
- 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.
- 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.
- Access by Users to Providers' contributions will occur under individually negotiated agreements, in accordance with the Guiding Principles, and be consistent with any obligations any Provider may have under existing agreements.
- Members will consider in good faith the issue of access to these products for all developing countries, including those which do not qualify as LDCs, taking into account the economic development of the countries and the need to facilitate access to disadvantaged populations.

WIPO Re:Search is a Consortium sponsored by the World Intellectual Property Organization (WIPO) in collaboration with BIO Ventures for Global Health (BVGH). Funding in support of the Partnership Hub activities is generously provided by several industry sponsors.



19 Neglected Tropical Diseases, Malaria, & TB

Disease	Disease Impact ¹
Buruli ulcer	Affects thousands of people per year in 30 countries in Africa, Asia, & the Western Pacific. Exact prevalence and disease burden is difficult to predict and current estimates may not reflect the magnitude of the problem.
Chagas disease (American trypanosomiasis)	10 million people infected; >10,000 deaths/year (WHO)
Cysticercosis	Ethiopia, Kenya, and DRC – 10% of population is infected, in Madagascar –16% (WHO)
Dengue fever	~ 50 million infected; thousands of deaths/year (WHO)
Dracunculiasis (guinea worm disease)	<2,000 infected in 2010 (WHO/CDC)
Echinococcosis	Global distribution; causes serious morbidity and death if left untreated (WHO)
Endemic treponematoses (Yaws)	Global prevalence estimated by WHO in 1990's at ~2.5 million with ~460,000 new cases. ~75% are children (WHO)
Foodborne trematode infections	Includes Clonorchiasis, Opisthorchiasis, Fascioliasis, Paragonimiasis. > 40 million infected (WHO)
Human African trypanosomiasis	Less than 10,000 cases (WHO)
Leishmaniasis	~ 2 million new cases/year; ~ 60,000 deaths/year
Leprosy	Global prevalence <200,000 infected in 2011, 228,474 new cases in 2010 (WHO)
Lymphatic filariasis	> 120 million infected in 72 countries (CDC/WHO)
Malaria	~ 225 million cases in 2009; 781,000 deaths in 2009 (WHO: 2010 report on Malaria)
Onchocerciasis	37 million infected, 270,000 of these are blind and 500,000 have visual impairment (WHO)
Podocniosis	5–10% prevalence - barefoot populations living on irritant soil (~1 million affected in Ethiopia, ~500,000 in Cameroon) WHO
Rabies	> 55,000 deaths per year, 95% of deaths occur in Asia or Africa (WHO)
Schistosomiasis	>207 million infected worldwide; 85% in Africa (WHO)
Snakebite	~421,000 cases, 20,000 deaths/year; may be as high as 1,841,000 cases, 94,000 deaths/ year (WHO)
Soil transmitted helminthiasis	~ 2.5 billion infected (WHO)
Trachoma	84 million people infected, 8 million are visually impaired (WHO)
Tuberculosis	~9.4 million cases in 2009, ~1.7 million deaths in 2009 (WHO: report on TB 2010)

Potential Users – NTD Researchers

- The database of intellectual property, know-how, and support services is publicly available for all to view and search.
- The WIPO Re:Search consortium is a voluntary endeavor, open to all *bona fide* private and public entities for the purpose of developing new drugs, vaccines, or diagnostics for NTDs, malaria, and tuberculosis.
- User inquiries are managed through the Partnership Hub.

BIO Ventures for Global Health (BVGH) Administrator of the Partnership Hub



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