

From academic & industry bench to *nonprofit* bedside

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Secretariat, Stop TB Partnership
Working Group on New Drugs (WGND)

The Journey



Graduate Student



Postdoctoral Research Associate



Sr. Research Biologist



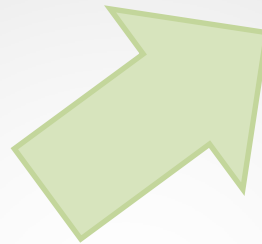
SCIENTIFIC LIAISON

- Learn your science
- Be involved in your community
- Take on new challenges

The Decision



Sr. Research Biologist
Neuroscience Drug Discovery
Alzheimer's Disease



Continue in Industry



Explore opportunities in
the non-profit world

Who I work for...

- PDP (Product Development Partnership)- Non-profit drug development company
- Established in 2000 to develop new Tuberculosis drugs

The screenshot shows the TB Alliance website. The header includes the logo and the tagline "Putting science to work for a faster TB cure." with a "Donate to the TB Alliance" button. A navigation bar lists: About Us, Why New Drugs Now?, Developing New Treatments, Adoption & Availability, NewsCenter, and Contact Us. The main content area features a large article titled "New Potential TB Drugs to be Investigated Against Multiple Neglected Diseases" with a chemical structure diagram and the DNDi logo. To the right, there are three smaller news snippets with "click to read" buttons. At the bottom, there are sections for "What We Do", "Our Portfolio", and "Find Out More".

<http://www.tballiance.org/home/home.php>

- Part of the World Health Organization (WHO) Stop TB Partnership (www.stoptb.org)
- One of 7 Working Groups

The screenshot shows the "Working Group on New TB Drugs" website. The header features the group's name in large blue letters, along with logos for "Stop TB Partnership" and "Working Group on new TB drugs". A navigation bar includes: blog, pipeline, about us, meetings, and TB resources. Below the navigation is a "Google Custom Search" box. The main content area has a banner image of pills and a "Welcome to the Stop TB Partnership Working Group on New TB Drugs" message. A mission statement reads: "The mission of the Working Group on New TB Drugs is to ensure stakeholders in TB Drug Development from academia, government, industry, non-profit organizations, and patients themselves, are working together to facilitate and speed the development of new drugs for the treatment of tuberculosis." Below this are three columns with icons and titles: "ABOUT THE WORKING GROUP ON NEW TB DRUGS", "WHY WE NEED NEW TB DRUGS", and "THE GLOBAL TB DRUGS PIPELINE". Each column has a short paragraph of text.

<http://www.newtbdrugs.org/>

Facts about TB

- > 2 billion people (~1/3 the world's total population) are infected with TB bacilli, the microbes that cause TB. One in every 10 of those people will become sick with active TB in his or her lifetime.
- TB is a leading killer among people living with HIV, who have weakened immune systems.
- In 2007, 1.77 million people died from TB, equal to ~4800 deaths/day. TB is a disease of poverty, affecting mostly young adults in their most productive years.
- Multidrug-resistant TB (MDR-TB) is a form of TB that does not respond to the standard treatments using first-line drugs. MDR-TB is present in virtually all countries surveyed by WHO and its partners.
- Extensively drug-resistant TB (XDR-TB) occurs when resistance to second-line drugs develops. It is extremely difficult to treat and cases have been confirmed in more than 50 countries.

What is my role as scientific liaison?

The image displays a screenshot of the 'Working Group on New TB Drugs' website. The top navigation bar includes 'blog', 'pipeline', 'about us', 'meetings', and 'TB resources'. The main content area is titled 'Pipeline » View By Phase' and features a filter section with buttons for 'VIEW ALL', 'DISCOVERY', and 'PRE-CLINICAL'. Under 'DISCOVERY', there are sub-buttons for 'HIT-TO-LEAD' and 'LEAD-OPT'. The pipeline is divided into three main sections: 'Hit To Lead', 'Lead Optimization', and 'Pre-Clinical', each with several project cards listing drug names and partner institutions. A central blue rounded rectangle contains the text 'Key aspects of role:' followed by a numbered list: 1. Collaboration, 2. Advocacy, 3. Scientific Administration, and 4. Scientific Management. To the right, a poster for 'THE GLOBAL PLAN TO STOP TB 2006-2015' is visible, featuring a group of children and the text 'Actions for Life TOWARDS A WORLD FREE OF TUBERCULOSIS'. The 'Stop TB Partnership' logo is at the bottom right.

WORKING GROUP
on New TB Drugs

Stop TB Partnership Working Group on new TB drugs

blog pipeline about us meetings TB resources

Pipeline » View By Phase

CLICK TO FILTER BY PHASE:

VIEW ALL DISCOVERY PRE-CLINICAL

HIT-TO-LEAD LEAD-OPT PRE-CLINICAL

Hit To Lead

- Engelstilbene TB Alliance, Korea Institute of Chemical Technology and Yonsei University
- Phenotypic Screening TB Alliance, University of Illinois
- M. tuberculosis Protein Kinase Inhibitors Veridex Pharmaceuticals, Incorporated
- Lwafds Inhibitors TB Alliance, Anacor Pharmaceuticals
- Adenosine metabolites University of Illinois at Chicago, Myong University
- DNA metabolism AstraZeneca R and D Bangalore
- Combinatorial biosynthetic Compounds Shan Environmental and University of Illinois at Chicago

Lead Optimization

- Mitochondrial TB Alliance, University of Auckland, University of Illinois
- New Generation Diarylquinoline TB Alliance, Tibotec
- Mycobacterial Gyrase Inhibitors TB Alliance, GlaxoSmithKline
- Bi-Functional Molecules TB Alliance, University of Auckland and State University
- M1040 AstraZeneca R and D Bangalore

Pre-Clinical

- OP26148 Microbial Chemistry Research Foundation, Tokyo, Japan, Lilly TB Drug ...
- New Respiratory Quinolone (RQ) Japan Anti-Tuberculosis Association, Daiichi-Sankyo Pharmaceuticals, ...
- SO241 Seqvelis
- Benzothiazinone New Medicines For Tuberculosis (NM)

Phase I

- Phase I Oxazolidinone (VNU-10049) Pfizer
- Clinical Development of SO241 Seqvelis, Inc.

Key aspects of role:

1. Collaboration
2. Advocacy
3. Scientific Administration
4. Scientific Management

THE GLOBAL PLAN TO STOP TB 2006-2015

Actions for Life
TOWARDS A WORLD FREE OF TUBERCULOSIS

Stop TB Partnership

My newest career venture...

- Research Associate at Johns Hopkins University and Research Liaison to K-RITH
- HHMI sponsored Research Institute- KwaZulu Natal Research Institute for TB and HIV (K-RITH) in Durban, South Africa

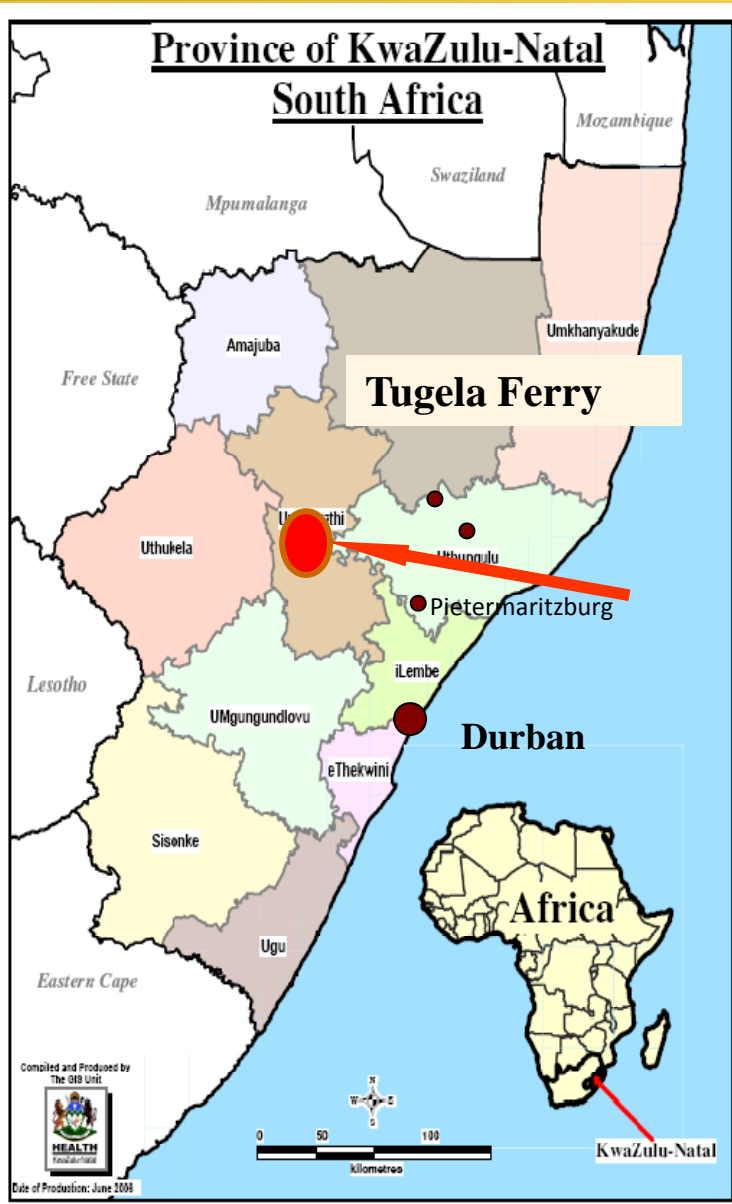
K-RITH Building on Completion, 2012

Architect's Rendition

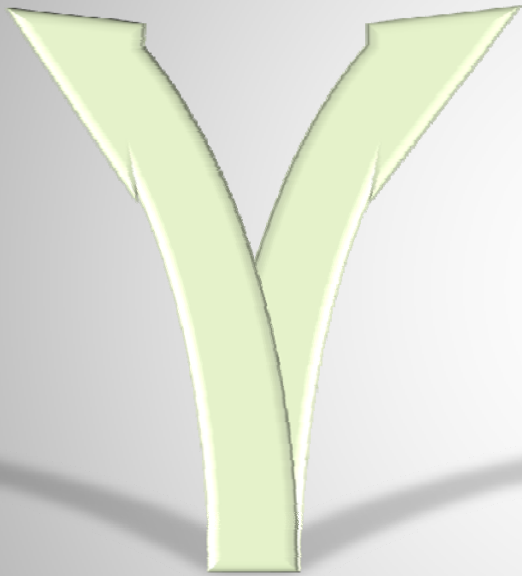


KwaZulu Natal

>10.2 million predominately Zulu people
HIV+ 17.5% of adults
TB case rate 1,100/100,000/yr (rural areas)



The Road Not Taken



Two roads diverged in a yellow wood,
And sorry I could not travel both
And be one traveler, long I stood
And looked down one as far as I could
To where it bent in the undergrowth;

Then took the other, as just as fair,
And having perhaps the better claim
Because it was grassy and wanted wear,
Though as for that the passing there
Had worn them really about the same,

And both that morning equally lay
In leaves no step had trodden black.
Oh, I marked the first for another day!
Yet knowing how way leads on to way
I doubted if I should ever come back.

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I,
I took the one less traveled by,
And that has made all the difference.

-Robert Frost

Take home messages

- Learn your science
- Be involved in your community
- Take on new challenges
- Everything requires a transition (mostly mental, sometimes physical)
- Network for whatever position you are interested in!!!

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