Access to Global Health Technologies
Technologies: big part of the global health landscape today
WHO: Trials show new Ebola vaccine is 'highly effective'

By Laura Smith-Spark, CNN

● Updated 12:53 PM ET, Mon August 3, 2015

A new experimental Ebola vaccine is likely to be 'highly effective,' according to results from trials in Guinea.

The vaccine, developed by the International AIDS Vaccine Initiative, was tested in a randomized placebo-controlled trial. The trial included more than 4,000 people in Guinea, the epicenter of the West African Ebola outbreak.

About 40 percent of participants developed symptoms of the virus, which is considered a moderate sign of vaccine effectiveness.

The results were published in the New England Journal of Medicine.

'One way to think about trial results in this context is to compare what we're seeing with potential placebo effects,' said study co-author Albert O.azu in a statement. 'The incidence of confirmed Ebola disease in the placebo group is about 40 percent of the confirmed incidence in the vaccine group, which is a very strong result.'

The vaccine, known as rAd5-EBOV, was tested in two forms: one with a placebo and another with a monovalent vaccine.

The monovalent vaccine was developed by the National Institutes of Health, but its results are not yet released.

The vaccine was shown to be safe and effective in phase 1 and 2 trials, and it's expected to be used in future trials in West Africa.

Here's what we know about the vaccine:

- It's based on a virus that causes chickenpox
- It's not a live vaccine
- It's a recombinant adeno-associated virus 5 (rAd5) vector
- It's expected to be used in future trials in West Africa

The vaccine is being produced by U.S. company Novavax.

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In global health, this is what we really care about

Good products get developed
They undergo adequate evaluation
Evidence-based policies get formulated
Products and policies get implemented in countries
Impact is seen on disease burden

This could be a single long value chain...
Single, linear value chain
In reality, it is messy

A Pipeline of Promise

Goal: Address a health need by producing a safe and effective product that is:

- Appropriate
- Affordable
- Acceptable
- Accessible

3. PRECLINICAL RESEARCH
Researchers translate discoveries into potential products and conduct laboratory testing to determine initial indicators of safety and efficacy.

2. BASIC RESEARCH/DISCOVERY
Scientists uncover insights into the biology of the disease or condition and identify potential chemical compounds, product candidates, or approaches to address it.

1. IDENTIFY NEED
Researchers discuss end user needs and health challenges with communities, keeping in mind cultural norms and health systems to inform product design and development. These considerations must be revisited throughout the process.

4. CLINICAL TRIALS*
Regulatory authorities review product's results, clinical trial design, and ethics before determining if product can advance to human clinical trials.
Clinical trials include three phases:

- Phase 1: Small trials testing safety in healthy volunteers
- Phase 2: Larger trials testing safety and efficacy among a target population
- Phase 3: Largest trials confirming safety and long-term efficacy in intended target population

5. REGULATORY REVIEW & APPROVAL
There is a multi-stage regulatory approval process for any global health product. This process can take several years before products achieve widespread availability. Regulatory approval must be secured in each country where the product is intended for use.

6. INTRODUCTION & SCALE
Product is introduced in countries where it has been approved. Manufacturing and distribution networks must be expanded to meet need.

7. POST-APPROVAL SURVEILLANCE
After product introduction, conduct studies to gain a better understanding of the product's use and contribute to monitoring safety, side effects, and quality.

8. IMPACT ACHIEVED
- Lives saved or improved
- Health care costs reduced
- Economic growth accelerated

http://www.ghcoalition.org/
Figure 2.1 | The access framework

ACCESS

How do good health technologies get to poor people in poor countries?

Laura J. Frost & Michael R. Reich

http://www.accessbook.org
AVAILABILITY
TB Care Today
Current therapy for drug-resistant TB

New, promising therapy (NIX-TB)

Nonprofit drug maker produces TB antibiotic after private companies wouldn’t
Why are we still using old tools in TB?

Broken pharma R&D model
Insufficient investment (money, time)
Academics and funders are risk-averse
Inadequate industry-academia partnerships
Market forces and decisions
Regulatory hurdles
Even when new tools are developed, access is a big issue.
Access to new TB drugs

As of March 1, 2017 there were 8,195 persons who have ever taken bedaquiline and 496 who have ever taken delamanid under program conditions. How does that compare to the need? The most conservative estimate would be that these medications are needed in approximately 42,000 patients per year, or one-third of the number of persons initiated on MDR-TB treatment annually.

Pai & Furin. eLife 2017
Why?

1. Lack of adequate funding to national TB programs
2. Regulatory hurdles
3. High cost of tools
4. Restrictive policies
5. Bureaucratic apathy & implementation failures
6. In the case of new drugs, a desire to protect the drug (as opposed to protecting patients) coupled with excessive concern about potential side effects

Pai & Furin. eLife 2017
AFFORDABILITY
American caravan arrives in Canadian 'birthplace of insulin' for cheaper medicine

U.S. residents come to Canada to purchase life-saving type 1 diabetes medication

Thomson Reuters · Posted: Jun 29, 2019 2:58 PM ET | Last Updated: June 29

Quinn Nystrom holds insulin she purchased in Canada after travelling over the border for more affordable medication. (Lorenda Reddekopp/CBC)
The Insulin Racket

NATALIE SHURE  JUNE 24, 2019

Insulin is a 100-year-old drug whose wholesale price has tripled in ten years. The reasons why explain everything wrong with America’s broken prescription drug market.
**RISE INSULIN PRICES**

- Humalog
- Novolog

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**Key Facts & Statistics:**

- 50% of people around the world in need of insulin cannot reliably access it because it is unavailable, unaffordable, or both.

- Monthly out-of-pocket costs for diabetes supplies the USA are anywhere from $0 to $1700 USD.

- In Syria, up to 77% of income can be spent on diabetes supplies, if any are available.

- Monthly costs for diabetes supplies in Brazil can be as much as $700 USD, or 82% of a person's income.

- Full diabetes management in Kenya could cost about $120 USD per month, but the average monthly salary in Kenya is $216 USD.

- Discontinuation of insulin use was the leading cause of diabetic ketoacidosis in 68% of people in a USA inner city.

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https://www.t1international.com/media/assets/file/Advocacy_Toolkit_-_WEB_SPREADS.pdf
The simple reason is Canada, like many other industrialized countries, has price controls on the cost of pharmaceuticals. The Patented Medicine Prices Review Board ensures the price of patented medicine sold in Canada is “not excessive” and remains “comparable with prices in other countries.”
ACCESS TO HEPATITIS C TREATMENT 2016

Of 80 million people infected - over 1 million had access to Hep C treatment

We have a long way to go
MEDICINES SHOULDN’T BE A LUXURY

Gram for gram, this hepatitis C drug is more expensive than diamonds
Of the 275,000 women in the world who die of cervical cancer every year, more than 85% are in low-income countries, where the incidence of HPV infection is higher and few women have access to screening and treatment - GAVI

HPV vaccines are among the most expensive adult vaccines, often costing close to $400 in the US private sector for a full three-dose course of therapy

http://blogs.nature.com/spoonful/2010/08/cocaine_monkeys_when_political.html
ADOPTION & SCALE
Even when products are developed, availability does not necessarily mean they get scaled-up.

Figure 1. Years to scale-up

While drugs, diagnostics, and vaccines typically scale within the first two years of launch in developed countries, they often take decades to scale in lower- and middle-income countries.

Source: Bill & Melinda Gates Foundation
Better Therapies For TB Are Here, But They Will Not Deliver Themselves

- Planning, alignment and engagement of stakeholders
- Strong policies
- Pathfinder countries
- Go beyond donation programs
- Active regulators
- Donor support
- United TB community & advocacy

Several interesting case studies & models to improve access to tools

<table>
<thead>
<tr>
<th>Tools</th>
<th>Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-retrovirals</td>
<td>GAVI</td>
</tr>
<tr>
<td>Hepatitis B vaccines</td>
<td>DNDi</td>
</tr>
<tr>
<td>HPV vaccination</td>
<td>Global Drug Facility</td>
</tr>
<tr>
<td>Rota virus vaccine</td>
<td>Affordable Medicine for Malaria (AMfM)</td>
</tr>
<tr>
<td>Hepatitis C drugs</td>
<td>CEPI</td>
</tr>
<tr>
<td>New TB diagnostic and drugs</td>
<td></td>
</tr>
<tr>
<td>Canada’s Ebola vaccine</td>
<td></td>
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</tbody>
</table>
An intimate tale of ‘medicine, monopoly and malice’, FIRE IN THE BLOOD tells the story of how Western pharmaceutical companies and governments aggressively blocked access to low-cost AIDS drugs for the countries of Africa and the global south in the years after 1996 - causing ten million or more unnecessary deaths - and the improbable group of people who decided to fight back.

Shot on four continents and including contributions from global figures such as Bill Clinton, Desmond Tutu and Joseph Stiglitz, FIRE IN THE BLOOD is the never-before-told true story of the remarkable coalition which came together to stop the Crime of the Century and save millions of lives in the process.

As the film makes clear, however, this story is by no means over. With dramatic post-victories having given way to serious setbacks engineered far from public view, the real fight for access to life saving medicine is almost certainly just beginning.

A film by Dylan Mohan Gray, narrated by William Hurt.

http://fireintheblood.com/
Most models try to address demand and supply side issues

<table>
<thead>
<tr>
<th><strong>Supply side</strong></th>
<th><strong>Description or examples</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventing delay in generic entry</td>
<td>Expedited or abbreviated application processes, early working (Bolar) provisions, and biowaivers</td>
</tr>
<tr>
<td>Incentivising market authorisation</td>
<td>Incentives for manufacturers to file an application for market authorisation of a generic medicine</td>
</tr>
<tr>
<td>Assuring quality of generic medicines</td>
<td>Requirements for bioequivalence testing and the publication of lists of interchangeable medicines; transparency of reviews of such evidence; reliance on decisions taken by stringent regulators or prequalification</td>
</tr>
<tr>
<td>Using TRIPS flexibility</td>
<td>Policies that enable the use of TRIPS flexibilities, including undisclosed test data protection that does not prohibit the registration of a generic</td>
</tr>
<tr>
<td>Increasing competition between manufacturers</td>
<td>Patent pools, improving transparency of patent information, and publishing information on the prices of medicines</td>
</tr>
<tr>
<td>Pricing for affordability</td>
<td>Internal reference pricing, external reference pricing, pricing controls, the regulation of distribution chain mark-ups, and charges; pooled procurement and tenders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Demand side</strong></th>
<th><strong>Description or examples</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Promoting generic prescribing</td>
<td>Prescribing medicines by the international non-proprietary (generic) name</td>
</tr>
<tr>
<td>Enabling substitutions</td>
<td>Mandate or enable the dispensing of generic equivalents instead of branded products by pharmacists and other dispensers</td>
</tr>
<tr>
<td>Adapting medicines reimbursement policies</td>
<td>Promoting generic medicines via waiver of copayments or the application of internal reference pricing</td>
</tr>
<tr>
<td>Promoting independent medicines information</td>
<td>Banning the provision of free medicine samples, banning direct-to-consumer advertising of prescription medicines</td>
</tr>
<tr>
<td>Monitoring consumption</td>
<td>Monitor and report the consumption pattern of generic medicines</td>
</tr>
</tbody>
</table>


Table 4: Pro-generic policies to increase competition and reduce prices$^{162}$

The Lancet Commissions
Essential medicines for universal health coverage
2016
## Summary table of different countries and results of their price reduction intervention for Hep C drugs

<table>
<thead>
<tr>
<th>Country</th>
<th>Description of Intervention</th>
<th>Cost of SOF per treatment of 12 weeks (per pill)</th>
<th>Cost of SOF per treatment of 12 weeks (per pill)</th>
<th>Number of people who have accessed lower price medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia (High-income)</td>
<td>Volume-based pricing deal</td>
<td>84,000$ AUS (1,000$)</td>
<td>Free to patients after normal co-payment scheme</td>
<td>25,890 people initiated treatment in 2016</td>
</tr>
<tr>
<td>Canada (High-income)</td>
<td>Leveraging collective buying power</td>
<td>55,000$ USD (655$)</td>
<td>Prices not disclosed due to confidentiality</td>
<td>Newer prices not yet implemented</td>
</tr>
<tr>
<td>Malaysia (Upper middle-income)</td>
<td>Compulsory licenses</td>
<td>12,000$ USD (143$)</td>
<td>Price is lower than 300$ USD, but SOF alone not disclosed</td>
<td>Newer prices not yet implements. RCTs needed for regulatory purposes</td>
</tr>
<tr>
<td>India (Lower middle-income)</td>
<td>Voluntary licenses generic competition</td>
<td>900$ USD (10.71$)</td>
<td>22$ USD (0.26$)</td>
<td>42,000 people had received treatment by the end of 2015</td>
</tr>
<tr>
<td>Egypt (Lower middle-income)</td>
<td>Challenging patents generic competition</td>
<td>900$ USD (10.71$)</td>
<td>Gilead’s SOF 250$ USD (2.98$) Generic SOF 51$ USD (0.61$)</td>
<td>More than 1 million people had accessed treatment by the end of 2016</td>
</tr>
</tbody>
</table>

**PPHS511 Case Study, Fall 2017**

**Criminal Cost: The High Price of the Hepatitis C Medication Sofosbuvir**

**Authors:** Adam Palayew B.Sc.(honors)¹, Elitsa Papazova², Mauli Patel³, Nevena Veljanovic³, Marie Ezran⁴, Claudia Woronko B.Sc.(honors)¹
Case study: Xpert MTB/RIF test for TB and rifampicin resistance

Smear microscopy

Rapid molecular test
CASE STUDY

Catalyzing the market for accurate tuberculosis testing in India’s extensive private sector through IPAQT

INCREASING ACCESS TO ACCURATE, VALIDATED DIAGNOSTICS IN THE PRIVATE SECTOR IS KEY TO REDUCING INDIA’S HIGH TUBERCULOSIS BURDEN. CHAI FACILITATED A PARTNERSHIP BETWEEN PRIVATE SECTOR LABORATORIES AND MANUFACTURERS TO SUPPORT ADOPTION OF A LOW-PRICE, HIGH-VOLUME MODEL THAT IMPROVES ACCESS TO QUALITY DIAGNOSTICS AND STRENGTHENS LINKAGES IN INDIA’S HEALTHCARE SYSTEM.
What is IPAQT?

Offered HBDC pricing to private labs which was 50% lower than commercial pricing.

GeneXpert Pre-IPAQT IPAQT
Capital Investment 30,00,000 15,00,000
Cartridges 2300 1150

Agreed to maintain a ceiling price to patients for TB tests.

Lower input price to labs resulting in lower price to patient.
What has IPAQT achieved?

- Ensured pan India availability of quality TB tests
- IPAQT network is truly nationwide
- 210 labs, & >6,000 collection centers (cc); all major chain labs.
- >80% Indian districts with at least one participating collection site.

10x increase in test volumes

- Steady YoY increase in test orders.
- ~85% of the GX volumes through IPAQT labs

YoY IPAQT Test Volumes
\[\sum(\text{GeneXpert, Hain LPA, BacT/Alert})\]

- YoY GX pricing trends in the private sector suggest that IPAQT has been successful in driving down the commercial GX price.

GX Price to Patient

- IPAQT Price (USD)
- 2013: 67.0
- 2015: 52.8
- 2018: 46.7

- 2013: 33.3
- 2015: 33.3
- 2018: 33.8

1 – Ponnudurai et al, J Epi Global Health 2018
IPAQT labs offer the lowest price for Xpert MTB/Rif Test in the private sector

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean price for Xpert MTB/RIF 2015</th>
<th>Mean price for Xpert MTB/RIF 2017-18</th>
<th>Range 2015</th>
<th>Range 2017-18</th>
<th>Labs contacted in 2015 with Xpert testing</th>
<th>Labs contacted in 2017-18 with Xpert testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>$80.60</td>
<td>$85.36</td>
<td>$51-$171</td>
<td>$58.20-$149.38</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>India IPAQT* member laboratories</td>
<td>$30.26</td>
<td>$33.80</td>
<td>Fixed Price</td>
<td>Fixed Price</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Rest of Private Sector</td>
<td>$52.82</td>
<td>$46.70</td>
<td>$27.84-$86.55</td>
<td>$24.67-$80.19</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Pakistan</td>
<td>$37.26</td>
<td>$47.67</td>
<td>$25.96-$58.65</td>
<td>$25.63-$66.45</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Philippines</td>
<td>$155.44</td>
<td>$152.49</td>
<td>$128-$183</td>
<td>$106.4-$170</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>$74.75</td>
<td>$64.20</td>
<td>$45.50-$130</td>
<td>$42-$90</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>$50.00</td>
<td>No Xpert</td>
<td>..</td>
<td>..</td>
<td>1</td>
<td>..</td>
</tr>
<tr>
<td>Uganda</td>
<td>No Xpert</td>
<td>No Xpert</td>
<td>..</td>
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<tr>
<td>Vietnam</td>
<td>No Xpert</td>
<td>No Xpert</td>
<td>..</td>
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</tr>
<tr>
<td>Indonesia</td>
<td>No Xpert</td>
<td>No Xpert</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>..</td>
</tr>
<tr>
<td>Myanmar</td>
<td>No Xpert</td>
<td>$71.03</td>
<td>..</td>
<td>..</td>
<td>1</td>
<td>..</td>
</tr>
<tr>
<td>Nigeria</td>
<td>No Xpert</td>
<td>$175.00</td>
<td>..</td>
<td>$115.00-$235.00</td>
<td>..</td>
<td>2</td>
</tr>
<tr>
<td>Cambodia</td>
<td>No Xpert</td>
<td>No Xpert</td>
<td>..</td>
<td>..</td>
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</tr>
</tbody>
</table>

- The average price to the patient of US $68.73 in 2015 v/s US $84.53 (range $46.70-$175.00) that patients pay now, translates to a 23% increase.
- The 2015 and 2017-18 data show a similar trend, with IPAQT laboratories still offering the lowest price (US $33.80) among all 12 countries.
- The gap between IPAQT and market prices in India has narrowed between 2015 and 2018, suggesting that IPAQT might have played a role in increasing affordability in the private sector at large.

Source: Ponnudurai et al. J Epi Global Health 2018
IPAQT: subsidised Xpert TB test in private labs gets popular

The test will cost Rs.2,000 from January 15

R. PRASAD

The number of labs/private hospitals in the country offering the WHO-approved tests like GeneXpert, Line Probe Assay (LPA) for diagnosing TB disease at a subsidised price has reached 54. There are over 10,000 collection centres spread across the country.

In eight months since the novel initiative – Improving Access to Affordable & Quality TB Tests (IPAQT) – was launched, the number people accessing these labs for the test will cost Rs.2,000 from January 15.

IPAQT is now seen as a novel market-shaping business model to increase access to quality diagnostics

Private firms form initiative to offer accurate and affordable TB tests

‘IPAQT is now seen as a novel market-shaping business model to increase access to quality diagnostics’

BMJ

Mumbai: Awareness about drug-resistant tuberculosis across India increased in the last two years after Hinduja Hospital’s doctors highlighted the plight of patients who were resistant to all 12 known TB drugs. The former is born out by the fact that the number of sophisticated TB tests called GeneXpert and Hain line probe assays—done from April 2012 to December 2013—made自此.

70 labs in India cut TB test bill by half

Malathy lyer

Mumbai: Awareness about drug-resistant tuberculosis across India increased in the last two years after Hinduja Hospital’s doctors highlighted the plight of patients who were resistant to all 12 known TB drugs. This is born out by the fact that the number of sophisticated TB tests—called GeneXpert and Hain line probe assays—done from April 2012 to December 2013 went up from 54 to 170.

IPAQT: subsidised Xpert TB test in private labs gets popular

IPAQT is a novel market-shaping business model to increase access to quality diagnostics.
June 14, 2013

Dr. Madhukar Pai
Associate Director
McGill International TB Centre
Department of Epidemiology & Biostatistics
1020 Pine Avenue West
Montreal QC H3A 1A2
Canada

Dear Dr. Pai:

Thank you for meeting with me during my visit to Mumbai. It was a great discussion, and I enjoyed learning more about India’s private diagnostics industry and its role in improving tuberculosis control.

I was very impressed with your comprehensive understanding of the diagnostics landscape in India and your work to ban unreliable serological tests and replace them with more suitable WHO endorsed tests. In particular, I appreciate your heroic efforts to reduce cost and increase access through the IPAQ coalition. I look forward to hearing of future progress.

It was a pleasure meeting you, and I appreciate your sharing your time and expertise with me.

Sincerely,

Bill Gates
Gavi's business model in six steps

1. Getting vaccines on the agenda
   - Donor and developing countries need to see proof of the value of new vaccines before investing.

2. Securing predictable financing
   - Immunisation is a commitment for life that requires guaranteed, long-term funding.

3. Putting countries in charge
   - Developing countries decide for themselves how best to use Gavi support for immunisation.

4. Strengthening health delivery systems
   - It's not enough to buy new vaccines. They have to safely reach every child.

5. Working together for healthy vaccine markets
   - Gavi's market shaping efforts aim to make life-saving vaccines and other immunisation products more accessible and affordable for lower-income countries.

6. Country commitment to co-financing
   - National immunisation programmes must survive long after Gavi support stops.
Drugs for Neglected Diseases initiative (DNDi) is a collaborative, patients’ needs-driven, non-profit drug research and development (R&D) organization that is developing new treatments for neglected diseases.
DNDi co-developed fexinidazole, the first all-oral treatment for sleeping sickness.
What about universities? How can we help?

[Image: University Decisions]

[Image: University Report Card 2017]

Project Summary

“Canadian Universities play a critical role in addressing global challenges such as HIV/AIDS, Tuberculosis, and other neglected diseases. It is imperative that we continue to give priority to the task of learning through research projects that align with our world-class research to meet these needs. This Report Card helps us measure the impact our universities have on global health. It clearly shows Canadian Universities are facing significant challenges. Society and research communities must join the universities into action.”

- Stephen Lewis, Co-Director of AIDS-Free World, Canada’s Former Ambassador to the United Nations

“The UAEM Canadian Global Equity in Biomedical Research Report highlights a worrying lack of transparency on publicly-funded biomedical research carried out by Canadian Universities. We know of at least three clinical trials that were conducted and only one university adopting global access licensing. The Report Card proves once again that universities have a long way to go. It is time for universities to take their responsibility seriously that publicly funded biomedical research is accessible to all public good.”

- Rachel Kitzel-Mannos, President of Practice McGill University

UAEM’s Canadian Report Card project evaluates 15 of Canada’s research-intensive universities on their contributions to biomedical research on neglected health needs, access to medicines, and education concerning access and innovative issues. The Report Card uses both publicly available and self-reported information to evaluate academic institutions on three key questions:

1. To what extent are universities investing in innovative biomedical research that addresses the neglected health needs of resource-constrained populations?
2. To what extent do universities ensure that their medical curricula for commercial purposes, or the drug companies, have adequate information to guide the determination of the most appropriate drugs for the treatment of neglected diseases that benefit all populations, especially in high, middle, and low-income countries? What steps are they taking to ensure that new treatments are made available at affordable prices?
3. What efforts are universities making to educate the next generation of global health leaders about the crucial impact that academic institutions can have on global health through their biomedical research and licensing activities?

[Link: https://canada.globalhealthgrades.org/about/]
GLOBAL HEALTH COMMENTARY

The Global Access Initiative at The University of British Columbia (UBC): Availability of UBC Discoveries and Technologies to the Developing World

KISHOR M. WASAN,1* SHEREE J. THORNTON,2* JAN BELL,† REBECCA E. GOULDING,‡ MICHAEL GRETS,§ ANDREW P. GRAY,‖ ROBERT E.W. HANCOCK,¶ BARBARA CAMPBELL,*

1The University of British Columbia, Faculty of Pharmaceutical Sciences, Division of Pharmaceutics and Biopharmaceutics, 2146 East Mall, Vancouver, B.C., Canada V6T 1Z3
2The University of British Columbia, University Industrial Liaison Office, Vancouver, Canada V6T 1Z3
3The University of British Columbia, University Libraries, Vancouver, Canada V6T 1Z3
4The University of British Columbia, Department of Microbiology and Immunology, Vancouver, Canada V6T 1Z3
5Dalhousie University, Halifax, NS, Canada

Received 5 June 2008; revised 6 June 2008; accepted 9 June 2008
Published online 7 August 2008 in Wiley InterScience (www.interscience.wiley.com). DOI 10.1002/jps.21495

ABSTRACT: The University of British Columbia (UBC) became the first university in Canada to develop a strategy for enhancing global access to its technologies. UBC’s University-Industry Liaison Office, in collaboration with the UBC chapter of Universities Allied for Essential Medicines (UAME), established a mandate and developed principles that provide the developing world with access to UBC technologies. This commentary will discuss these principles and provide examples of where they have been applied to several UBC technologies. © 2008 Wiley-Liss, Inc. and the American Pharmacists Association J Pharm Sci 08:791–794, 2009

Keywords: absorption potential; formulation; antifungals; vaccine delivery; nanotechnology
Visualizing an alternative biomedical R&D system

12th Jan 2018
Access to medicines Research 0 comments

University \ DECISIONS
ABOUT WHAT TO RESEARCH & HOW TO SHARE IT
IS THE key TO GLOBAL Health

Author: Chloe Hogg
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Can technologies alone save lives?
The Machine That Will Help End TB

Nearly 1.5 million people die from tuberculosis every year, even though most cases can be cured with routine antibiotic treatments. One country’s fight to get the ancient scourge under control has an unlikely hero: a simple diagnostic test.

by Jon Cohen  December 11, 2012

Tuberculosis is one of the leading causes of death in much of the world. HIV is the only infectious disease that kills more people. Yet many TB cases go undiagnosed.

PROMISE

Improved Diagnostics Fail to Halt the Rise of Tuberculosis

TB remains a big killer despite the development of a better test for detecting the disease

By Lexi Callaway, Nature magazine on November 17, 2012

REALITY
PROMISE

Saving lives in childbirth: do we have a game changer?

REALITY

Promise unrealized: A birth checklist fails to reduce deaths in rural India

Viola, 33, holds her baby girl a few hours after her birth at a Community Health Center in Mir, near the capital of Uttar Pradesh.
There are no silver bullets or killer apps in global health...
Technologies help, but cannot overcome low quality health systems
For real, enduring impact, we need high quality health systems

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Thank you!

Merci!!