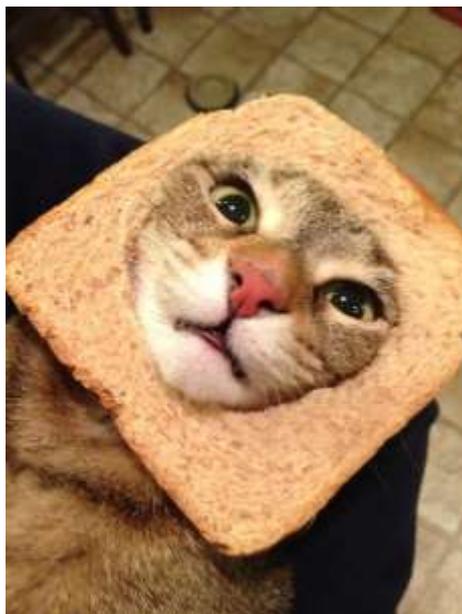


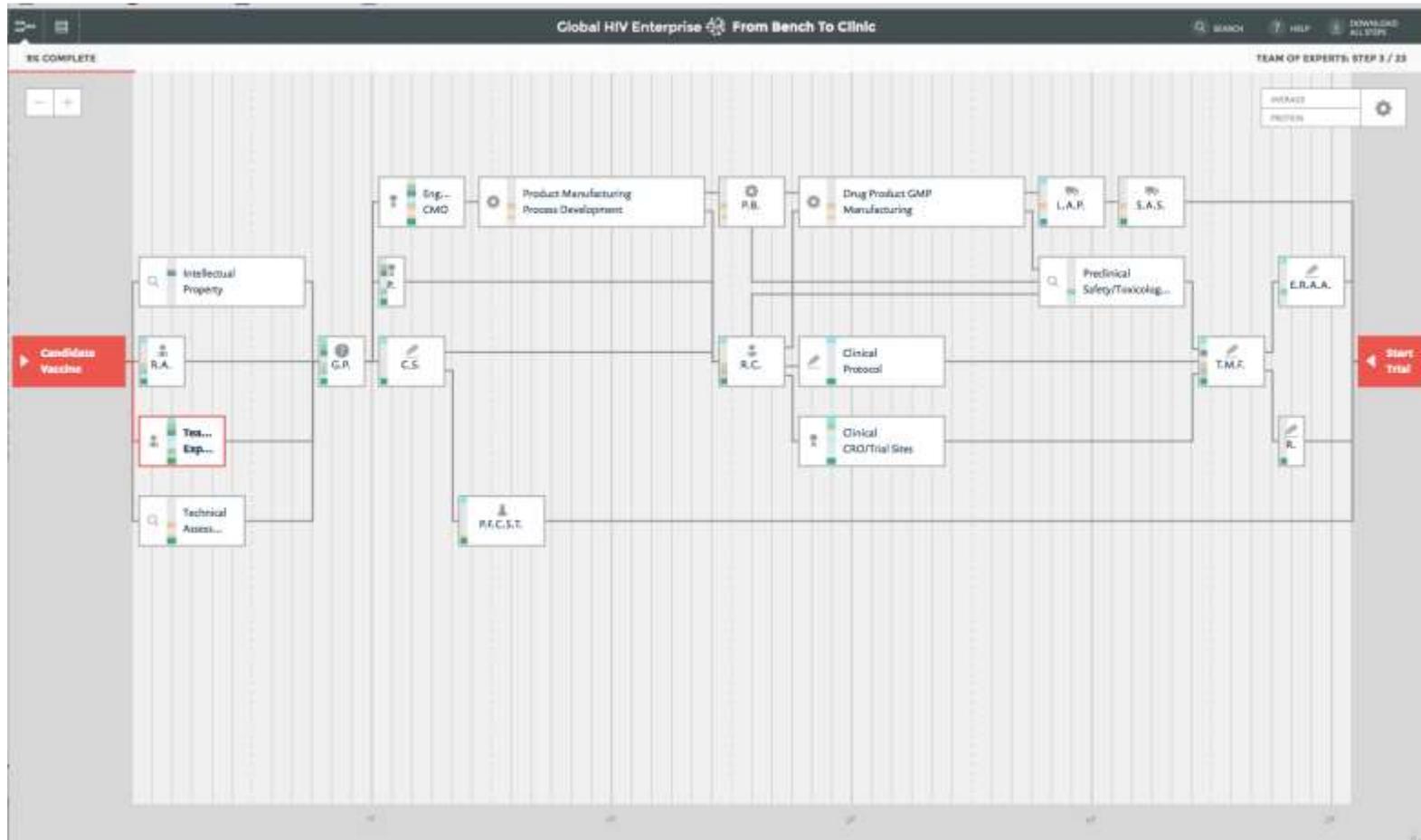
Is there a place for basic science in
OHTN's research strategic plan?

Mario Ostrowski, University of Toronto

**Invest in rigorous, community relevant,
community engaged research that has a
high potential to solve problems and have a
measurable impact on the populations
most affected in the short to medium term
(i.e., 2-5 years)**



The time from bench to clinic is variable and maybe longer than 5 years



What is translational research?

- T1 research: Harnessing knowledge from basic science to produce new drugs, devices and treatment options for patients
- T2 research: Translating research into practice, close the gap in quality, improve access, change practice patterns that are out of date

T1 research requirements

- Mastery of molecular biology, genetics, virology, basic sciences
- Work with cutting-edge technology
- Supportive infrastructure that can facilitate development to a treatment based on findings

Basic scientists doing translational research

SCIENCE **TEDTalks**

9 old drugs that learned new tricks: The head of the National Institutes of Health shares medicines that turned out to have multiple uses



Posted by: **Brooke Borel**
March 22, 2013 at 9:56 am EST



Digoxin Suppresses HIV-1 Replication by Altering
Viral RNA Processing
Cochrane et. al. PLOS Pathogens, 2013

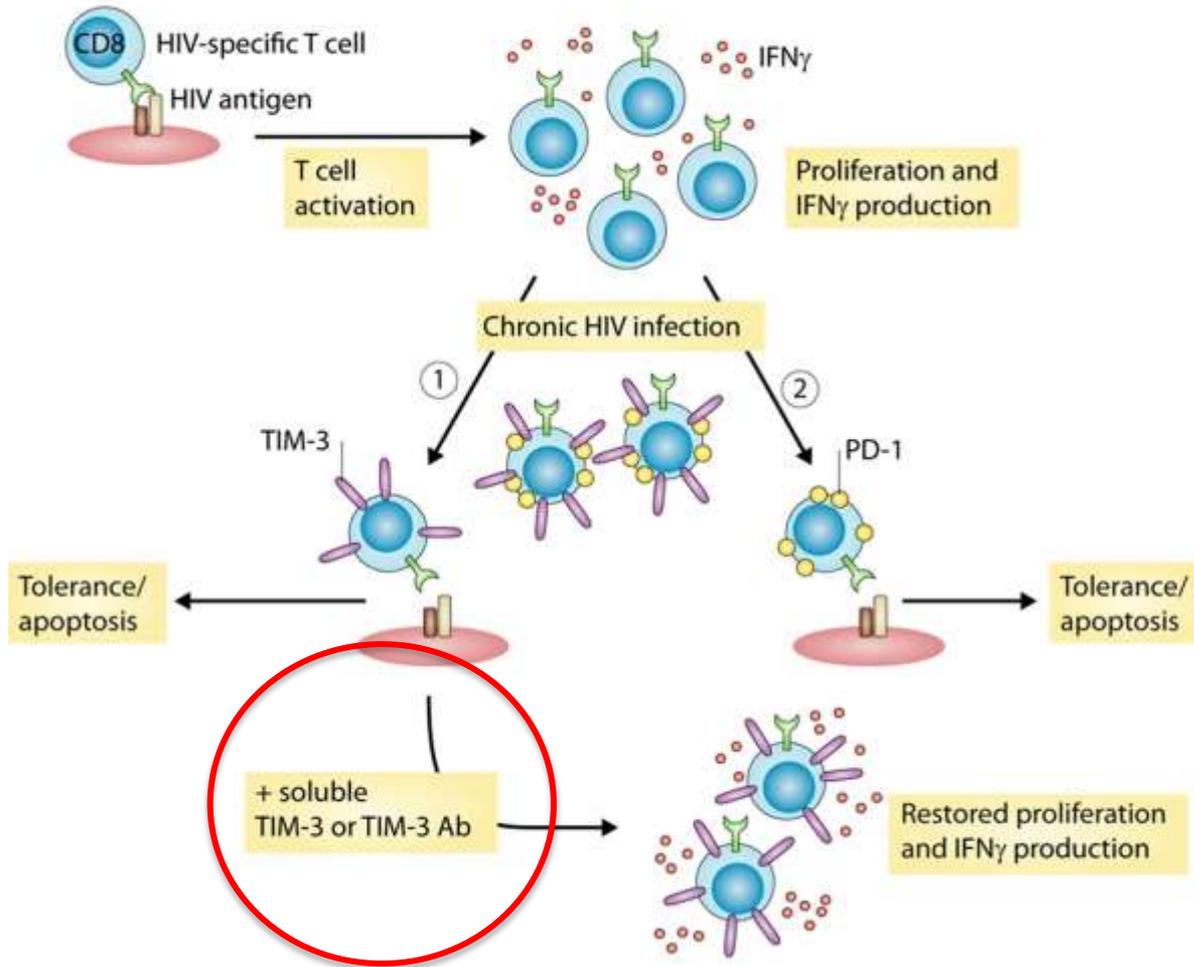
A look at the crystallites of AZT, the first antiviral approved for the treatment of HIV/AIDS. Originally, AZT was created to treat cancer — but it failed in tests.

What impact would this study have?

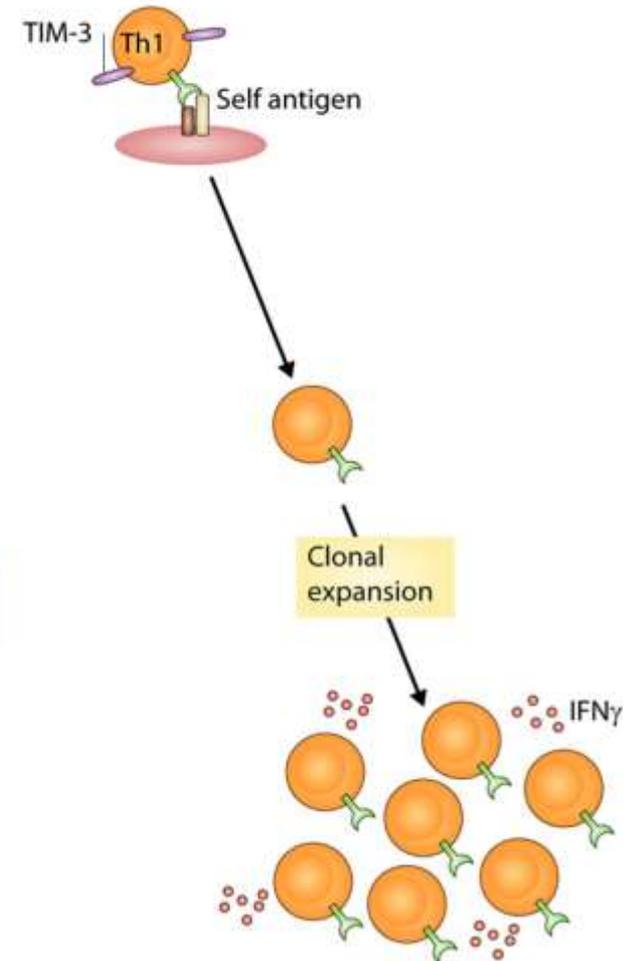
- Would promote testing of Digoxin like drugs for HIV treatments
- Promote retrospective studies on Digoxin use in HIV infection
- Promote pilot work on Digoxin as an adjuvant to standard HIV treatments

Dissecting the mechanisms of T cell exhaustion in HIV and HCV

A TIM-3 and T cell exhaustion in HIV infection



B TIM-3 and autoimmune disease



Impact in 2-5 years?

- Knowledge translation to community
- Development of new biologics to treat HIV
- Research proposals need to be framed that findings will be translated rapidly to clinical development
- In research, of any kind, its always hard to predict the future

