

Borderless innovation: why is it needed and how do we get there?

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PRISME Forum, TECH MEETING

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Vivienne, living with osteoporosis



Inspired by **patients.**
Driven by **science.**

Agenda

Introduction

- Drug discovery – collaboration has always been a vital ingredient

Borderless innovation

- What is it and why is it necessary
- How do we get there?

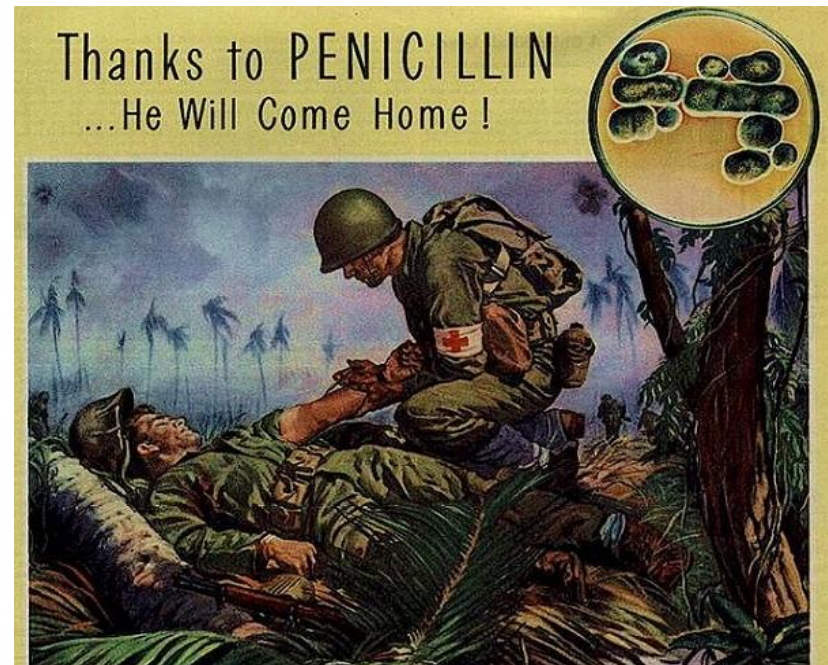
Conclusions

Collaborative drug discovery

Lessons from history

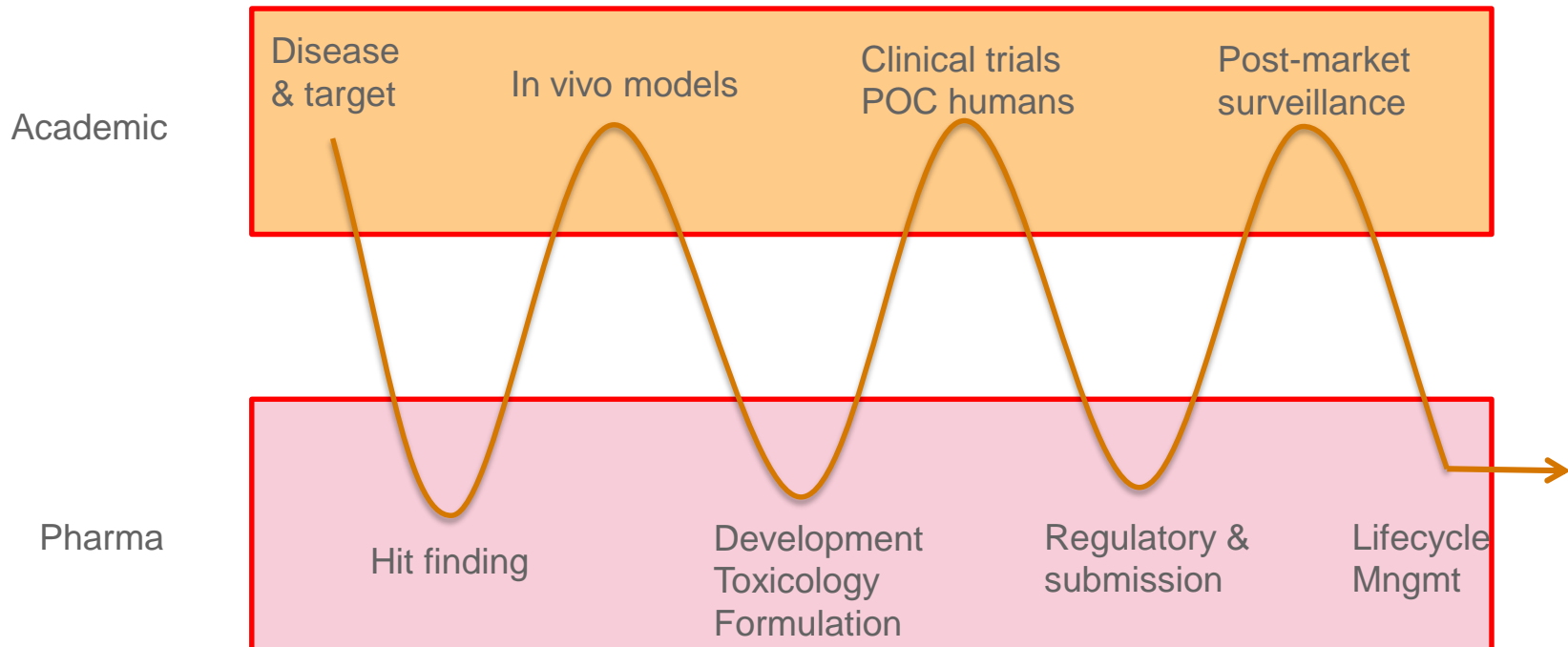
Penicillin 1928 - 1946

- Different teams bring different skills
- Discovery is only the first step
- An unmet need is the greatest spur to innovation



Drug discovery has long been a partnership

3rd box in the middle - academic/spin-out, outsourcing, consortia



Open innovation

UCB NewMedicines™ Technology Platform Access Programme
technology.accessantibody@ucb.com

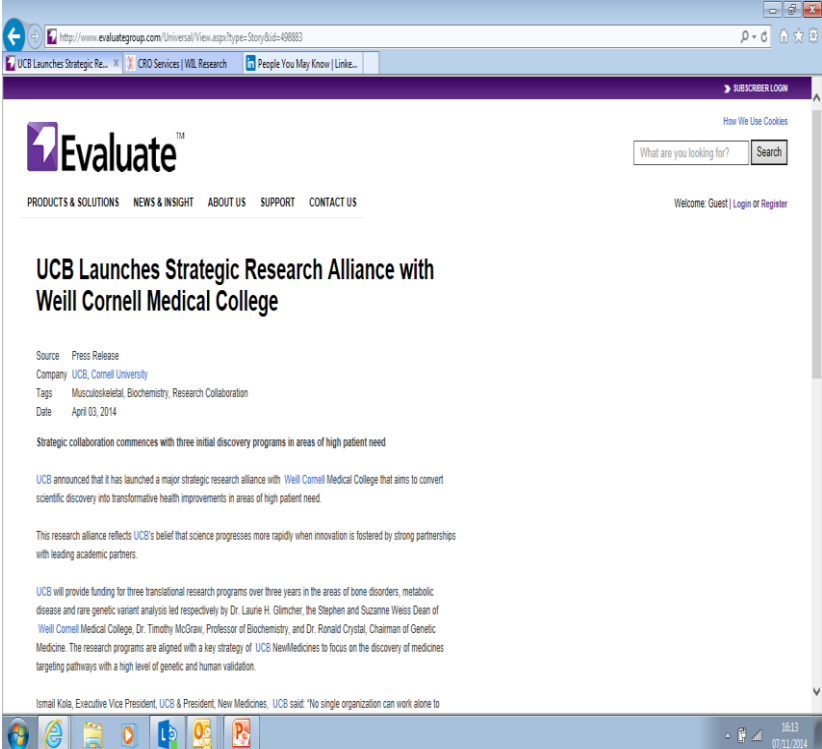


Collaborators need tech solutions to function

Several topics for discussion at PRISME

UCB/Weill Cornell Medical College

- Data sharing and security
- IP
- Visualization of concepts/prototypes
- Alliance Management



The screenshot shows a web browser displaying a press release on the Evaluate website. The URL in the address bar is <http://www.evaluategroup.com/Universal/View.aspx?type=Story&id=498883>. The page features the Evaluate logo, a search bar, and navigation links for Products & Solutions, News & Insight, About Us, Support, and Contact Us. The main headline reads "UCB Launches Strategic Research Alliance with Weill Cornell Medical College". Below the headline, the source is identified as a Press Release from UCB, Cornell University, dated April 03, 2014. The text of the press release discusses a strategic collaboration between UCB and Weill Cornell Medical College, aimed at converting scientific discovery into transformative health improvements. It mentions that UCB will provide funding for three transitional research programs over three years in the areas of bone disorders, metabolic disease, and rare genetic variant analysis. The programs are led by Dr. Laurie H. Glimcher, Dr. Stephen and Suzanne Weiss Dean of Weill Cornell Medical College, Dr. Timothy McGraw, Professor of Biochemistry, and Dr. Ronald Crystal, Chairman of Genetic Medicine. The research programs are aligned with UCB's NewMedicines strategy to focus on the discovery of medicines targeting pathways with a high level of genetic and human validation. The press release is signed by Ismail Kolia, Executive Vice President, UCB & President, New Medicines, UCB, with the tagline "No single organization can work alone to". The browser's taskbar at the bottom shows the date and time as 16:33 on 07/11/2014.

Borderless innovation

| A definition

Innovation that is not held back by:

- distance
- our tendency to want to work in a set way
 - the “human factor”
 - Pharma imperialism

Are we there yet?

We can share data and ideas across oceans but....

Working together in the lab is now rare

Observation is being lost from the process of innovation

- **Examples from my work at UCB**
- Lipases
- SDS-PAGE



Does the “human factor” stifle innovation?

cultural differences are not barriers but opportunities

Questions to answer

- Do we stick with tried and trusted?
- Do we always work with people we relate to?
- Do we work through problems?
- Can tech solutions help us overcome the human factor?



Will opportunities from cultural differences be realized?

Statistics do not help us answer this

University World News Jan 2014

- 2010 - 5.5 million first degrees awarded in science and engineering worldwide

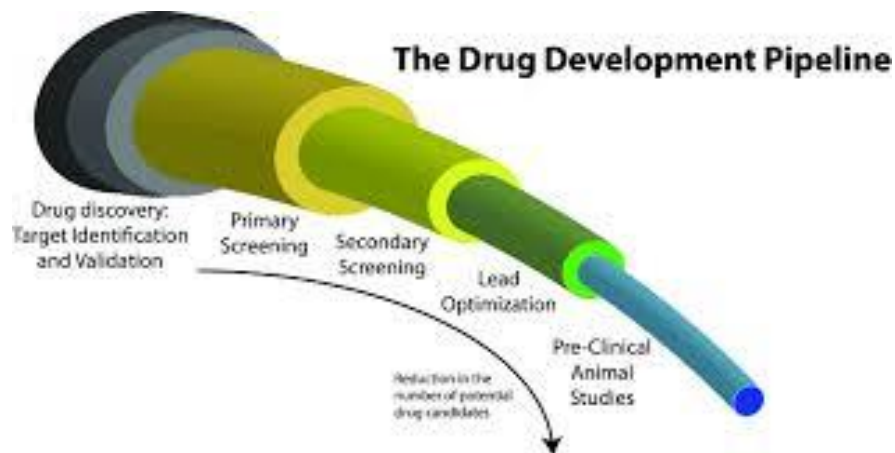
China	22%
USA	10%
- 1991-2011 - Chinese students accounted for 27% of overseas students awarded doctorates in science and engineering from leading research universities in the United States
- 2002-12 - researchers in the US authored 48% of the world's top 1% of cited papers



Pharma imperialism

Imperialism: *a policy of extending a country's power and influence through colonisation, use of military force, or other means*

- **Borderless innovation requires old models of invention to be constantly challenged**
- **Pharma must reduce their control and influence for drug discovery pipelines to flow again**



Conclusions

Now, more than ever, collaboration in drug discovery is the way forward

- Open innovation models are common at the early phases of drug discovery
- Tech solutions that enhance collaborations should also be shared

Have we broken the borders to innovation?

- We must overcome the “human factor” – borderless innovation demands this
- We must bring people together in the lab again
- Pharma imperialism must be challenged

Thanks!