

**John Latham, Ph.D.
Chief Scientific Officer & Founder
Alder Biopharmaceuticals**



Translational Science in Biopharma

- **Our business is based on this-taking research discoveries to the clinic and on to the market**
 - In certain instances we have to invent solutions to address
 - “Validate” the thesis: >50% of academic discoveries cannot stand the test of drug discovery (Nature Reviews Drug Discovery 10, 712 (September 2011))
- **Focus is on unmet medical need**
- **Involves highly integrated multi-disciplinary team to ensure success**
 - Significant capital need for conducting clinical development and transitioning to the market place

Translational Interface

Generic Strategy for Drug Discovery Program

**In vitro/in
vivo model
result**

**Validate the
role of the
result in a
therapeutic
setting**

**Identify the
strategy for
the
therapeutic
discovery &
development**

**Drug
Discovery &
Development**

Clinical Pharmacology is integral to this entire process

Translational Interface

**In vitro/in
vivo model
result**

**Validate the
role of the
result in a
therapeutic
setting**

**Identify the
strategy for
the
therapeutic
discovery &
development**

**Drug
Discovery &
Development**

Clinical Pharmacology is integral to this entire process

**This is an area where the intellectual strength of the state
can be brought to bear**

Issues the Industry is Facing

- **We're not training sufficient number of scientists who understand drug discovery/development**
 - Limited educational environment where there is sufficient exposure to the critical issues in drug discovery: technologies, steps in the process, the regulatory issues
 - Medical science domestically has downplayed clinical pharmacology training for physicians; critical skill in drug development
- **Process engineering and manufacturing**
 - Limited perceived value for a career
 - Critical activity for business success
 - Manufacturing facilities
- **Capital support for the creation of new innovative companies exploiting novel science**