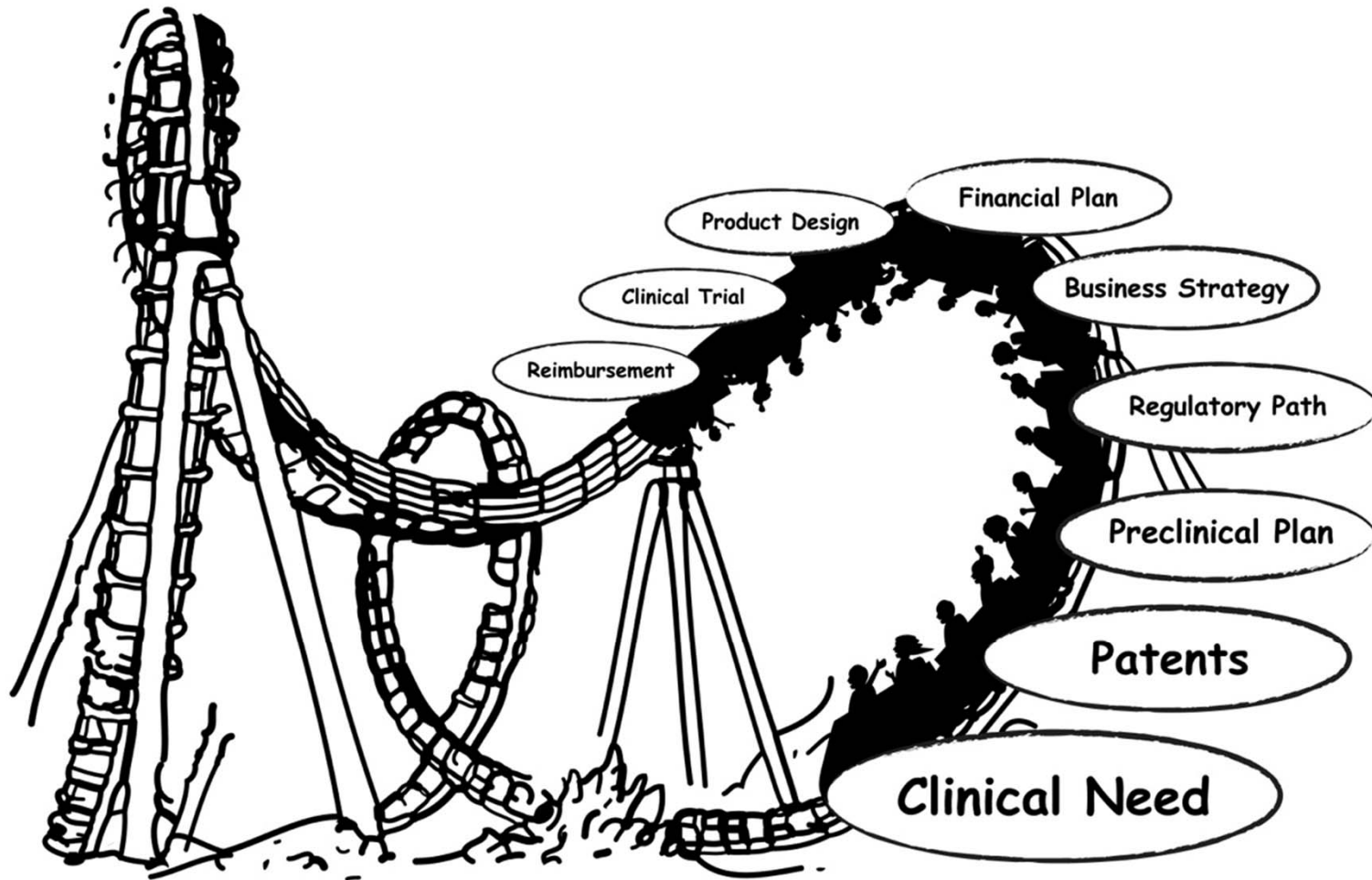


Translational Medicine Symposium 2013: *The Roller Coaster Ride to the Clinic*



Translational Medicine Connects the Problem to the Solution



- *Every step in developing a device or drug must be evaluated in light of the clinical problem*

Meet the
Entrepreneurial Faculty Scholars

Academic Scholarship is Evolving

➤ Traditional Model

If you get grants, publish in top journals and win awards, other faculty will respect you

➤ Evolving Model

If your scholarship has a positive impact on other people, you will earn their respect

Students are the key to the culture change

Who are the Academic Entrepreneurs?

They are students and faculty who:

- **Identify** and solve real world problems
- **Translate** basic science to applied technology
- Create **products** as well as papers
- Strive to understand **business** of science
- Understand **marketing** and **customers** are key

Meet the
Entrepreneurial Faculty Scholars



Translational Activities Are Scholarly

- **Translational research** – applying basic knowledge to real world needs
- **Translational teaching** – applying educational methods to real world needs
- **Translational service** – engaging in activities responsive to real world needs

Impact is the unifying feature

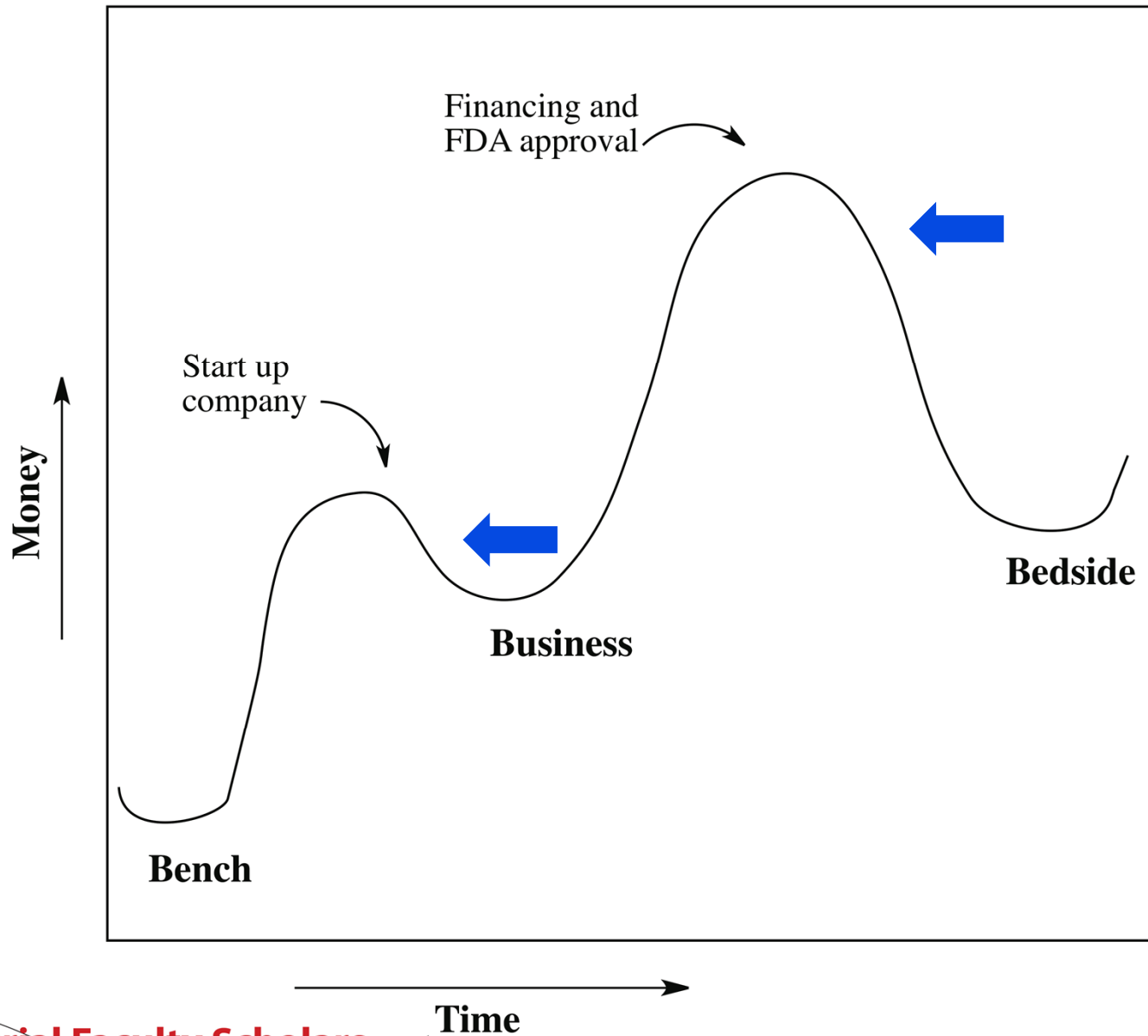
Translation Requires Focus



The View is Great from 20,000 Feet



Translation Requires Energy



←
Unstable
intermediate
states

The Path to Product is Not Linear



The Challenges Can Appear Insurmountable



The Competition May Seem Very Close



Disasters Await the Unwary



The Destination Can be Obscured



The Landscape is Complex....



....But Patterns Emerge



At the End of the Day You Can Succeed!

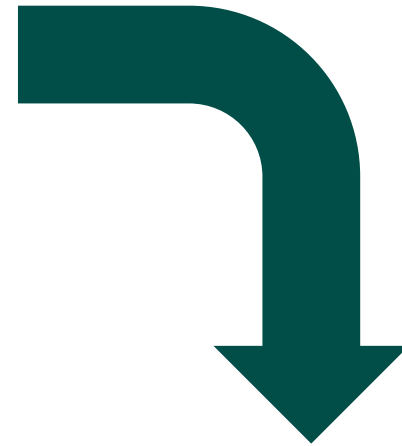


Design Criteria for a Clinical Biomaterial

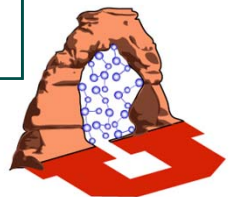
- ◆ Meet needs of end-users: scientists, patients, physicians
- ◆ Simple, effective composition
- ◆ Simple to use
- ◆ Easy to manufacture under GMP
- ◆ Clear path to regulatory approval
- ◆ Reimbursable by health payers



Clinically useful products



**Research use and
veterinary products**



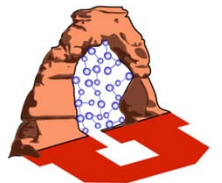
The Translational Imperative

Embrace complexity

Engineer versatility

Deliver simplicity

G. D. Prestwich, *Organogenesis* 4, 42-47 (2008)



Center for Therapeutic Biomaterials

Today's Program

- 11:30 – 12:00** Arrive and collect box lunch
- 12:00 – 12:20** Introduction
- 12:20 – 1:00** Identifying the Clinical Problem
- 1:00 - 1:40** Intellectual Property
- 1:40 - 2:20** Preclinical Development
- 2:20 - 2:40** Break
- 2:40 - 3:20** Regulatory Pathway
- 3:20 - 4:00** Business Strategy & Financing
- 4:00 - 4:40** Clinical Development and Trials
- 4:40 - 5:20** Product Development
- 5:20 – 5:40** Open discussion and closing remarks

Tomorrow's Program

08:15 – 08:45

Continental breakfast

08:45-10:15

First group of student elevator pitches

10:15 – 10:30

Break

10:30 – 12:00

Second group of student pitches

Meet the
Entrepreneurial Faculty Scholars

