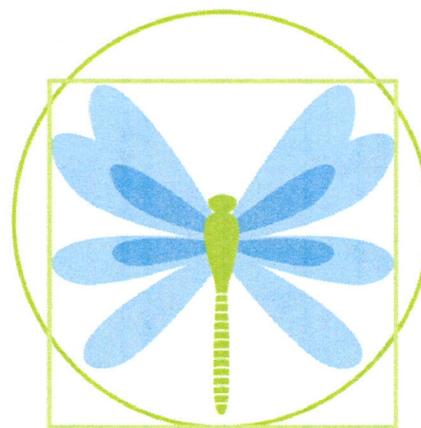


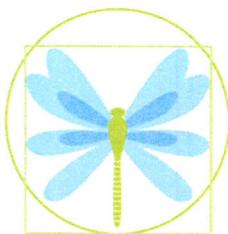
Starting up a Small Biotech in China

National Academy of Sciences

Vincent Ling

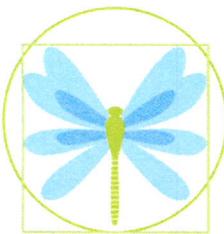


Dragonfly
SCIENCES



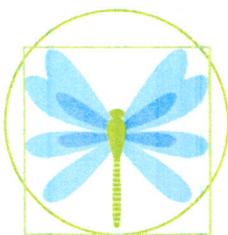
Dragonfly Sciences - Profile

- History:
 - Founded by Frank Lee, Ph.D., biotech entrepreneur, in Winter of 2005, self-funded.
 - Currently ~20 FTE Shanghai, China, 3 FTE US
- Business:
 - Custom Biologics Service Company
 - Discovery Biology (non-GLP)
 - Overflow lab for big pharma
 - Implementation lab for virtual biotechs

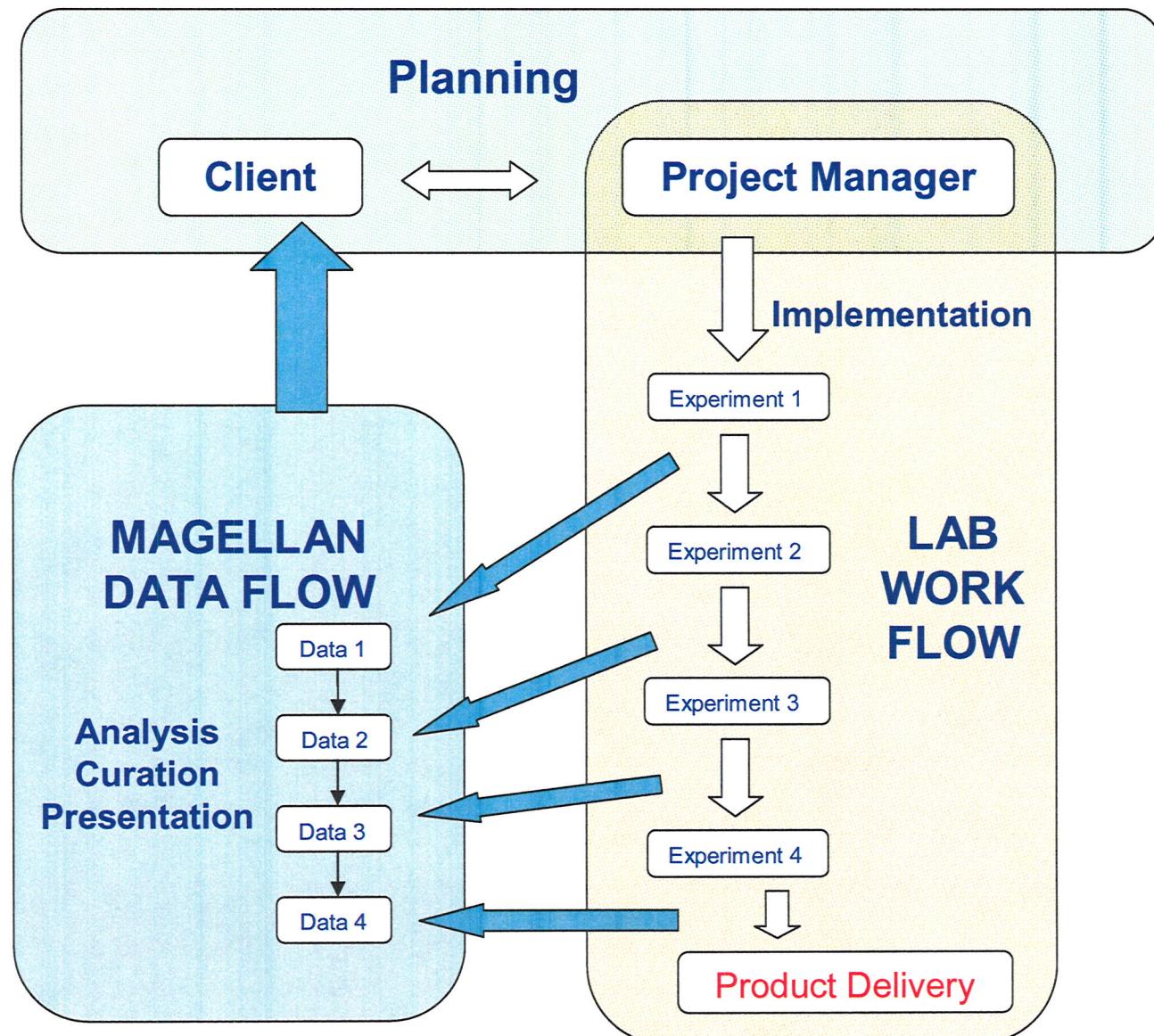


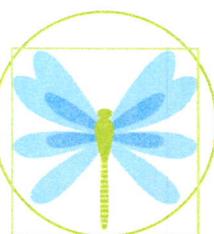
Dragonfly Sciences

- Hybrid business model
 - US company – with staff in China
 - Executive project management and consultation in the US. Premium Service – focused, relationship growth model.
 - Implementation laboratory in Shanghai. Cost and work efficiencies.
- Clients
 - US Big Pharma and Biotechs with basic discovery research needs. >95%
 - Academics <5%



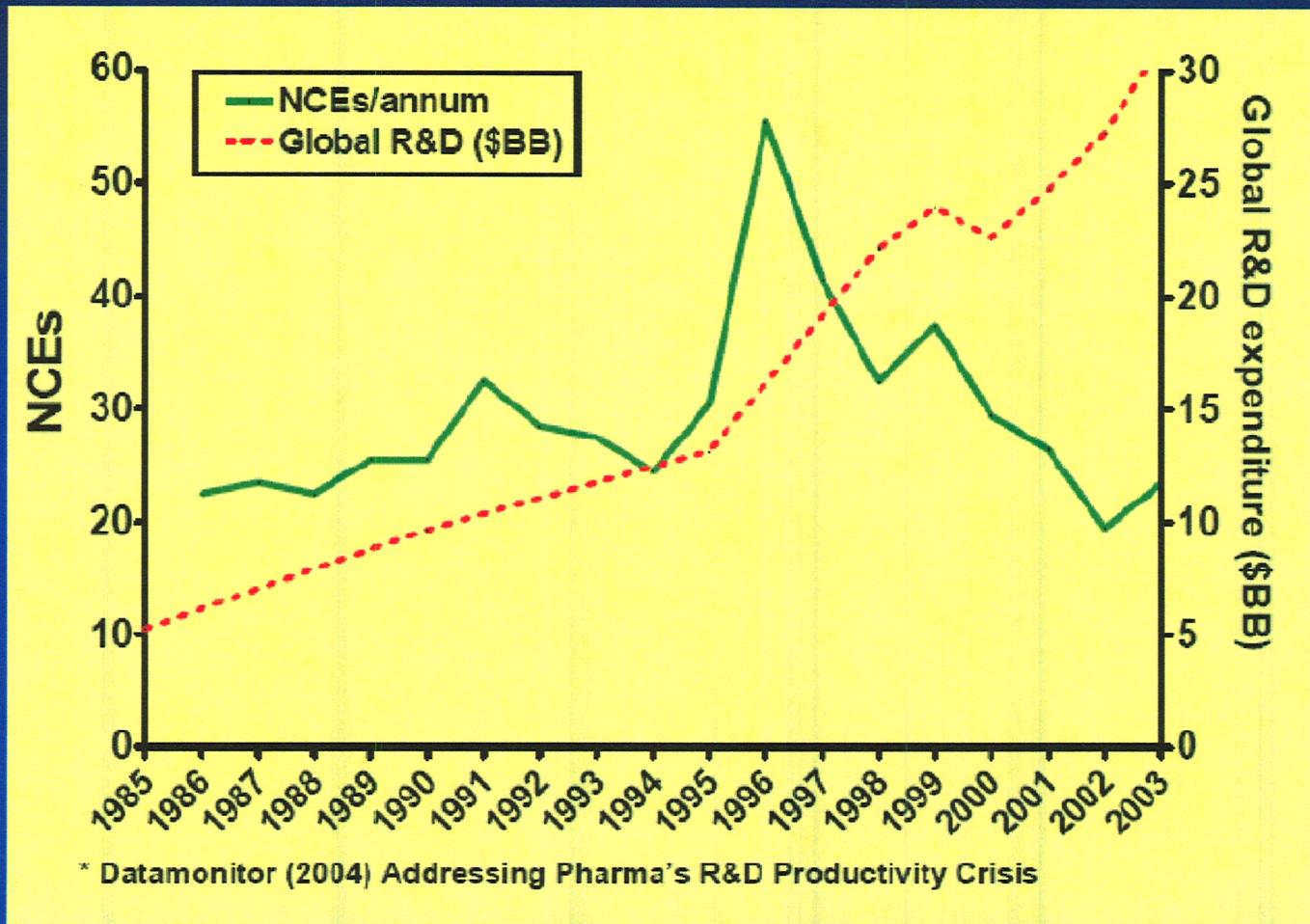
Dragonfly Sciences Operations Model

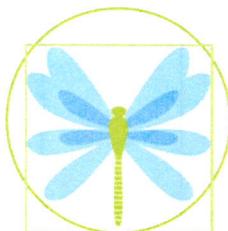




Rationale for Setting up Shop in China

Challenges For Pharma Industry

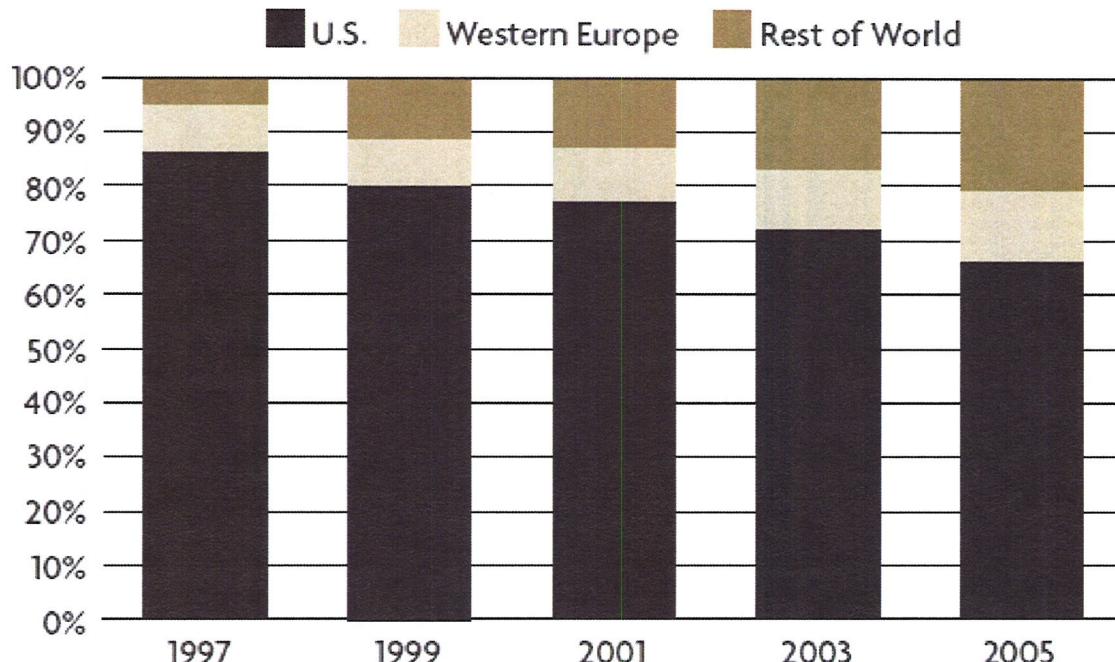




Why Outsource?

Clinical investigations are going global

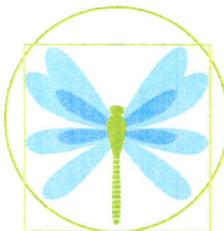
Distribution of 1572 Forms by Location of Investigative Site



- As more small/mid-tier pharma companies strive to become clinical organizations, the high cost and low success rates of human studies will create significant challenges for that sector, and lead them to adopt outsourcing and other clinical practices that big pharma is using to control costs and manage risk.

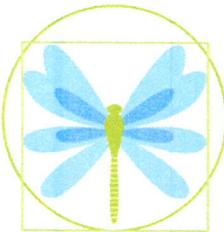
Note: A 1572 form must be submitted to the FDA by a clinical investigator prior to initiating a study in human subjects.

Source: Tufts Center for the Study of Drug Development



Setting up Shop

Description	Advantages	Challenges
Labor Costs	~1/4 th to 1/7 th vs. US	Inexperienced workforce
Plentiful MS and PhDs	Good Learning Habits	All dream to come to the US.
Legal Regulations	Common Sense	Arbitrary Oversight
Work Ethics	Willing to work hard	Participation



View from the Trenches

- Have long-term outlook
- Have an insider that you trust
- Understand management theory
 - (hierarchy of needs and theory x / theory y)
- Expect retention challenges at Ph.D. level
- Anticipate additional cost in starting-up
- Relationships take time
- Teach and Learn – most rewarding experience.