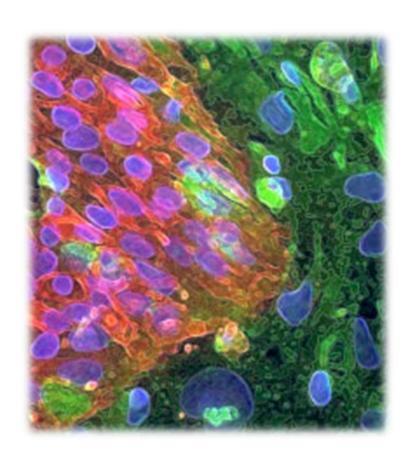
# How Technology Transfer and other IP Agreements can Spur Bench to Bedside Translation

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#### TRANSLATIONAL FIELDS

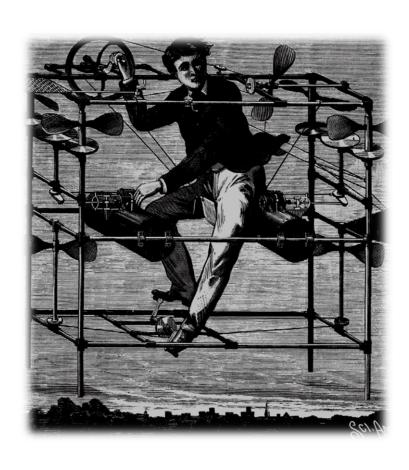


- HIGHLY COLLABORATIVE
- MULTI-NATIONAL
- MULTI-DISCIPLINARY
- MULTI-SECTORIAL
- INCUBATION IN ACADEMIA

#### STEM CELL CLINICAL TRIALS - GLOBAL



### **KEY ACTORS**



- ACADEMIA
- TECHNOLOGY TRANSFER OFFICES
- FUNDERS
- BIOTECH
- PHARMA
- REGULATORS
- HEALTH SYSTEMS
- PUBLIC AND PATIENTS

### PRE-COMPETITIVE RESEARCH AND IP



- RAISES THE LEVEL OF KNOWLEDGE FOR ALL R&D ACTORS
- DOES NOT LIMIT
   THEIR ABILITY TO
   APPROPRIATE
   INNOVATION THAT IS
   CLOSER TO
   PRACTICAL
   APPLICATION

### INFRASTRUCTURE



- IMPROVING THE
   TOOLS AND
   TECHNIQUES FOR
   SUCCESSFUL CLINICAL
   TRANSLATION
- DATABASES
- BIOREPOSITORIES
- BIOBANKS
- GMP

### COLLABORATIVE MODELS



- COMMON POOL RESOURCES
- OPEN SOURCE
- OPEN ACCESS
- CLEARINGHOUSES
- PATENT POOLS
- RESEARCH ALLIANCES
- PUBLIC-PRIVATE PARTNERSHIPS

## INTELLECTUAL PROPERTY RIGHTS



- ISSUES OF IP ACQUSITION
- ISSUES OF IP MANAGEMENT
- MANAGE INPUT AND OUTPUT IP

### CONTRACTUAL AGREEMENTS



- MULTI-SECTORIAL
- INTERNATIONAL
- COLLABORATIVE RESEARCH AGREEMENTS
- MATERIAL TRANSFER AGREEMENTS
- OUTCOMES ORIENTED
- CONTRACTING CULTURES

### BEST PRACTICES



- CLEAR STATEMENT OF OBJECTIVES/RELATIONSHIP
- SIMPLE/STANDARD AS POSSIBLE
- BASED ON REALISTIC
  ASSESSMENT OF VALUE AND
  ENFORCEMENT CAPACITY
- COMMERCIAL VS NON-COMMERCIAL USE
- RETENTION OF RIGHTS
- NO REACH THROUGH

### **INCENTIVES**



- METRICS FOR COLLABORATIVE ACTIVITIES
- NON-SILOED ACADEMIC STRUCTURES
- RECOGNITION FOR MULTI-SECTORIAL RESEARCH
- ENFORCEMENT CAPACITY BY FUNDERS

### **PUBLICATIONS**

- **Bubela T** et al. (2012) Recalibrating Intellectual Property Rights to Enhance Translational Research Collaborations. 4 *Science Translational Medicine* 122cm3.
- **Bubela T**, et al. **(2012)** Is Belief Larger than Fact: Expectations, optimism and reality for translational stem cell research. **BMC** *Medicine* 10:133.
- **Bubela T**, et al. (2010) Commercialization and Collaboration: Competing Policies in Publicly-Funded Stem Cell Research? 7 *Cell Stem Cell* 21-30.
- **Bubela T**, Caulfield T (**2010**) Role and Reality: Technology Transfer at Canadian Universities. 28 *Trends in Biotechnolo* 447-451
- Schofield PN, **Bubela T**, et al. (2009) Post-publication sharing of data and tools. 461 *Nature* 171-173.

#### **ACKNOWLEDGEMENTS**







