

# California Initiatives

Ed Penhoet  
Alta Partners

# Shifting Sources of Success

From:

## Inherited Assets

- Geography
- Climate
- Natural Resources
- Population

To:

## **Created Assets**

- Top universities
- Research centers
- Talented people
- Entrepreneurial culture
- Networks
- Vibrant downtowns

# 2007 NGA Suggested Government Guidelines

- **Put all the pieces together.** Make R&D investments part of a 21st century innovation strategy.
- **Make the right bets.** Your region has strengths, so find them and fund them.
- **Innovate for the real world—globally and locally.** Research makes a difference when it's relevant to industry and your community.
- **Invest in collaboration.** Innovation has players from universities, industry and government.
- **Listen to the smart people.** There are hard decisions in this process, you will need the best advice.
- **Be consistent while embracing change.** Innovation needs sustained effort but it must also evolve with the times.
- **Make sure you get what you want, but be patient.** It will take time to accomplish long-term goals, but measuring short-term gains is critical to getting there.

Adapted from Innovation America - NGA

# Why is State Government Important?

- Major investors in **human capital**, Elementary school to Doctoral degrees
- Major provider of **physical infrastructure** including roads, bridges, highways, ports and local transit
- Often have jurisdiction or **regulatory control**
- Increasingly also directly **fund research and development**

# California Creates Its Own Research Funds

- 1996- UC Discovery Grants - have been up to \$60 M annually from state, UC and industry
- 2000- Creates 4 California Institutes for Science and Innovation at UC –taken together represent a billion-dollar effort to focus research
- 2004- Voters approve \$3B over ten years for stem cell research - First state to raise that much money for a specific type of research
- 2009- Possible new Climate Change Institute: Proposed >\$300M (up to \$600M) R&D program

**Expectation management a key issue**

# UC Discovery Grant Program

## promotes research partnerships with industry

Table 13: Industry-University Cooperative Research Program UC Discovery Grant funding, FY 07-08			
Field	#	IUCRP Contribution	Industry Contribution
Biotechnology	12	\$3,601,004	\$5,073,338.87
Communications & Networking	8	\$1,293,380	\$2,077,767.76
Digital Media	4	\$2,907,452.37	\$3,912,766.82
Electronics Manufacturing	12	\$5,699,647.04	\$7,301,462.01
Information Technology for Life Sciences	2	\$529,356.99	\$694,144.06
Multidisciplinary research in:	8	\$1,089,395.99	\$1,561,385.84
Energy & Environment			
Health and Wellness			
Rapid application of nanotechnologies			
Total	46	\$15,120,236	\$20,620,865

*Source: University of California Office of the President*

# 2000 Launched Governor Gray Davis Institutes for Science and Innovation

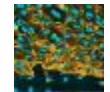
- California Institute for Quantitative Biological Research (QB3),
- California NanoSystems Institute (CNSI)
- California Institute for Telecommunications and Information Technology (Calit2)
- Center for Information Technology Research in the Interest of Society (CITRIS)
- \$100 million for four years of support
- additional \$800 million from federal and private sector partners
- total investment over \$1.2 billion

# Proposition 71

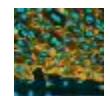
- Approved by 59% of CA voters in November 2004
- Established the California Institute for Regenerative Medicine (CIRM)
- Authorized \$3 billion in principal and \$3 billion in interest to fund stem cell research in CA
- Constitutionally affirmed the right to conduct pluripotent stem cell research
- Banned reproductive cloning

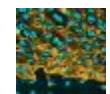
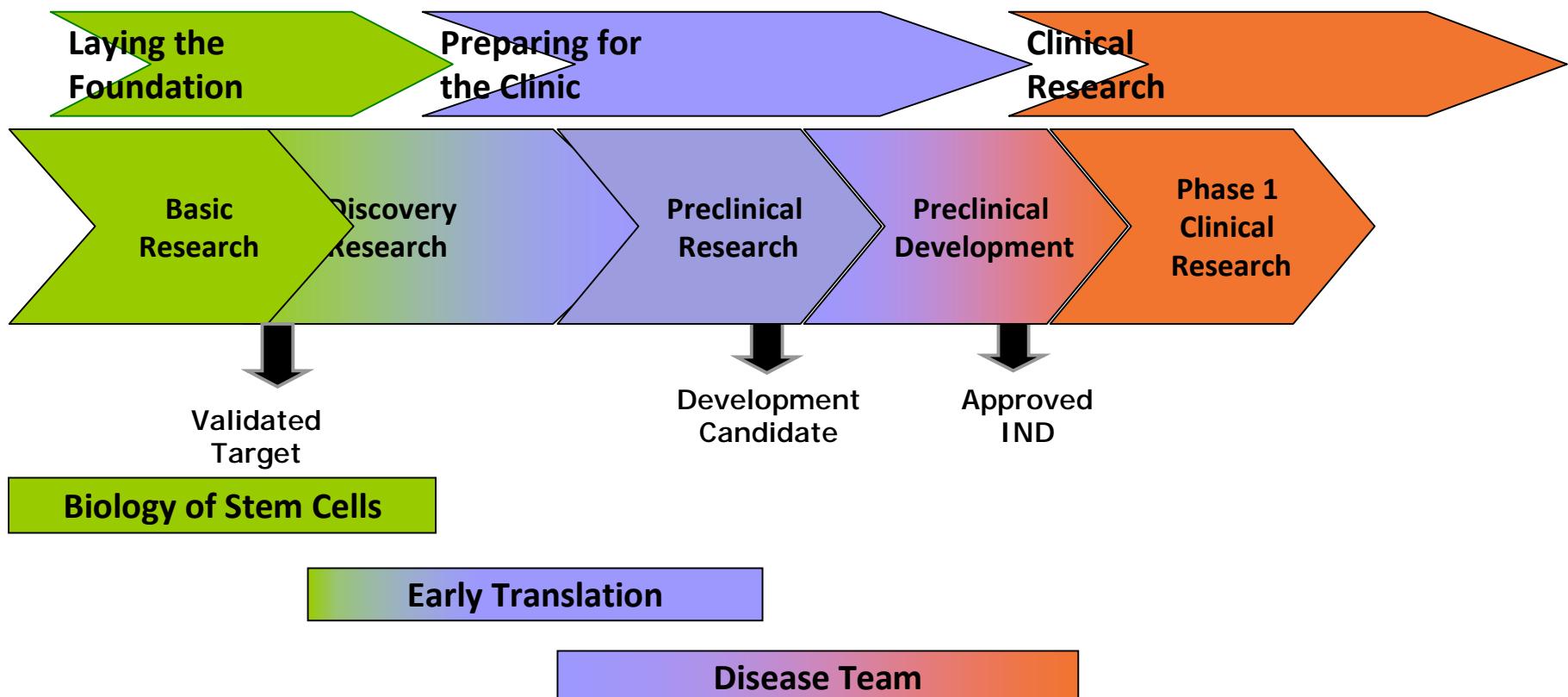


Friday, June 05, 2009



Friday, June 05, 2009





Friday, June 05, 2009



# California Climate Change Institute

- identify and supporting research and education relating to climate change,
- oversee, coordinate, and manage an R&D program for meeting the state's greenhouse gas emission reduction targets and mitigating the impacts of climate change, and
- develop educational curricula to support emerging green technology industries.