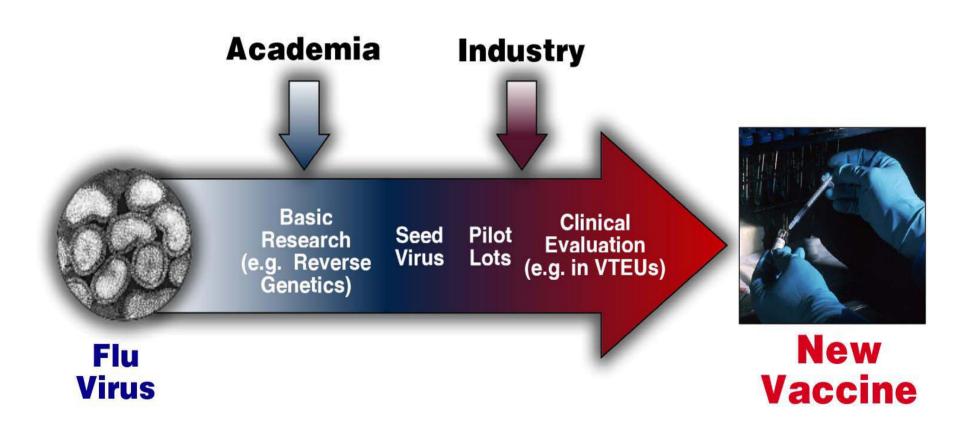
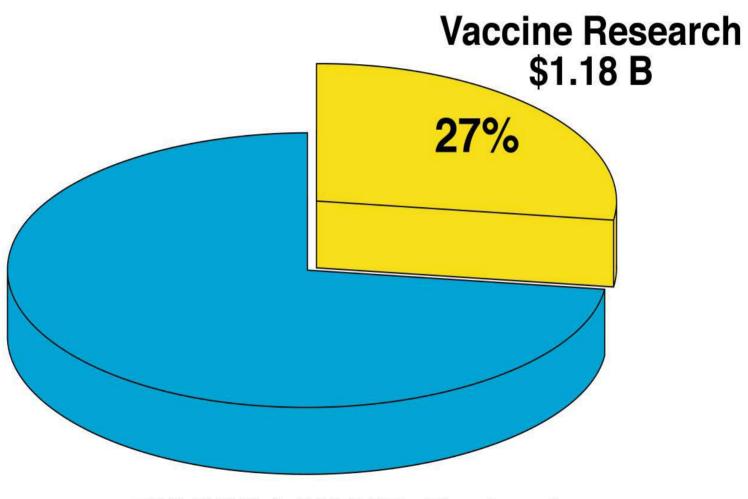
NIH Role in Influenza Vaccine Development

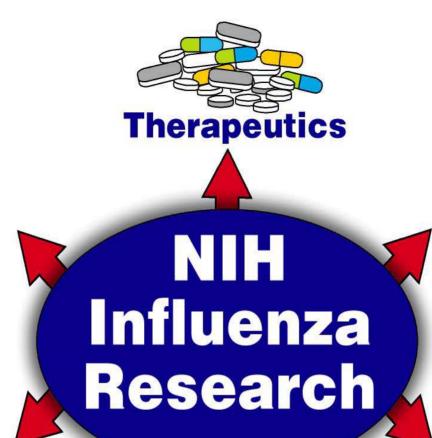


NIAID FY 2004 Budget

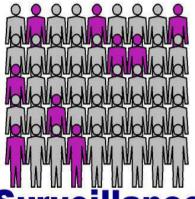


FY 2004 NIAID Budget \$4.30 B









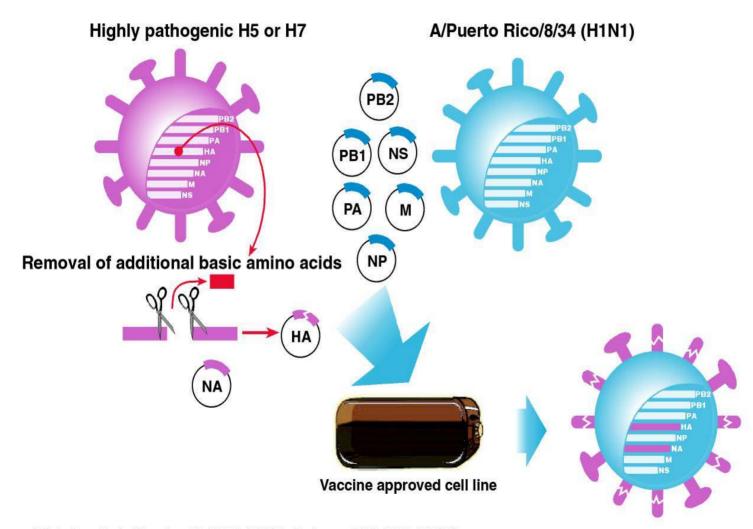
Surveillance and Epidemiology





Expansion of Research Capacity

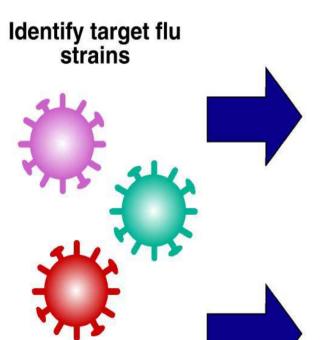
Influenza Vaccine Seed Virus Production Using a Reverse Genetics System



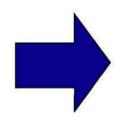
Source: Webster et al: Vaccine 20:3165 (2002); Science 302:1519 (2003)

Influenza Vaccine Production: Cell Culture as an Alternative to Chicken Eggs

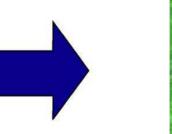
Provide target viruses to vaccine manufacturers

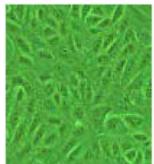


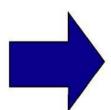














Potential Advantages of Cell Culture-Based Influenza Vaccines

- Supports faster vaccine production than egg-based vaccines.
- Allows rapid response to discovery of new and evolving flu strains.
- Requires less manufacturing space.
- Circumvents possible problems presented by highly virulent flu strains (i.e., lethality to chicken embryos).
- Tolerated by people with egg allergies.

NIAID Influenza Research Funding

