



University of Pennsylvania: A World Renowned Urban Academic Research Institution

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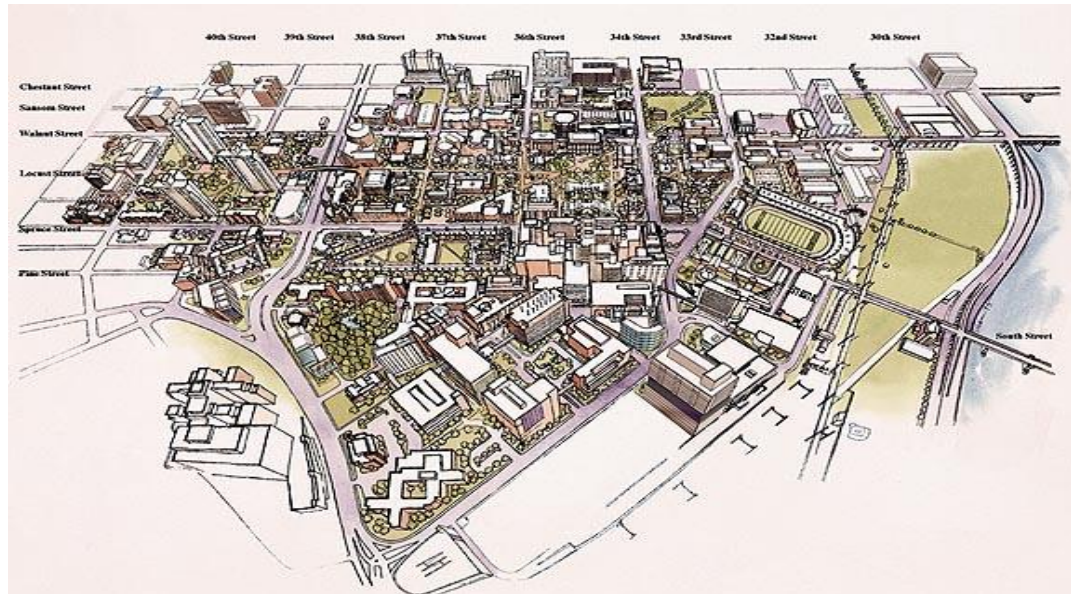
THE UNIVERSITY OF PENNSYLVANIA

- **279 acre campus located in the heart of Philadelphia**
- **~\$5.7 billion annual operating budget**
- **~31,000 local employees**
 - **(Largest private employer in Philadelphia)**
- **Over \$3.1 billion direct expenditures on salaries and wages**

University of Pennsylvania

An Integrated Urban Campus

- The University of Pennsylvania campus encompasses a large community of scholars
 - > 25,000 undergraduate and graduate students
 - > 4,200 faculty
 - > 31,000 staff spread across 12 Schools and a fully incorporated nationally renowned health system
- 12 Graduate & Professional Schools >160 Centers & Institutes



University of Pennsylvania

A Leader in Higher Education

- Twelve internationally recognized Schools spanning the arts, humanities, and the sciences
 - Annenberg School for Communication
 - School of Arts and Sciences
 - School of Dental Medicine
 - Graduate School of Education
 - School of Engineering and Applied Science
 - School of Design
 - Law School
 - School of Medicine
 - School of Nursing
 - School of Social Policy & Practice
 - **School of Veterinary Medicine**
 - The Wharton School
- Over 165 unique multidisciplinary Centers & Institutes charged with exploring the intersection of traditionally disparate fields of scholarship

School of Veterinary Medicine at the University of Pennsylvania

❖ **2nd Oldest Veterinary School in U.S.; Consistently ranked in Top 5 nationwide; Example breakthroughs:**

- **Genetics of Disease**

- Identification of genes that cause disease (e.g. Leber's Congenital Amaurosis) and treatments to prevent them



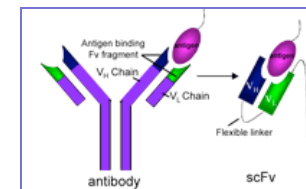
- **Companion Animal Diagnostics**

- PennHIP, a world-wide standard for the prediction of hip dysplasia



- **Oncology**

- Canine antibody libraries for the identification and targeting of tumor-associated antigens



- **Food Safety**

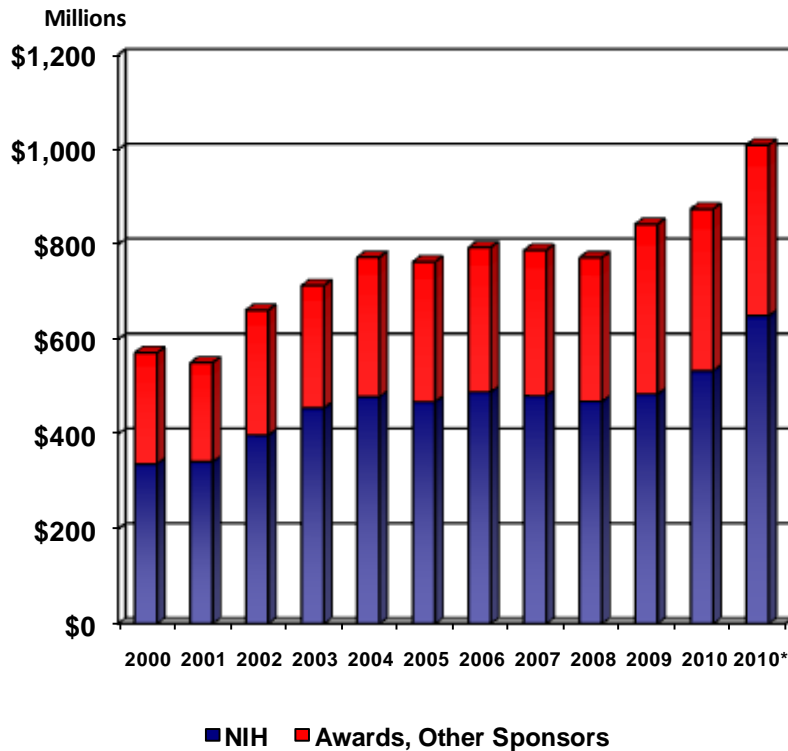
- Real time detection kit for salmonella in poultry eggs



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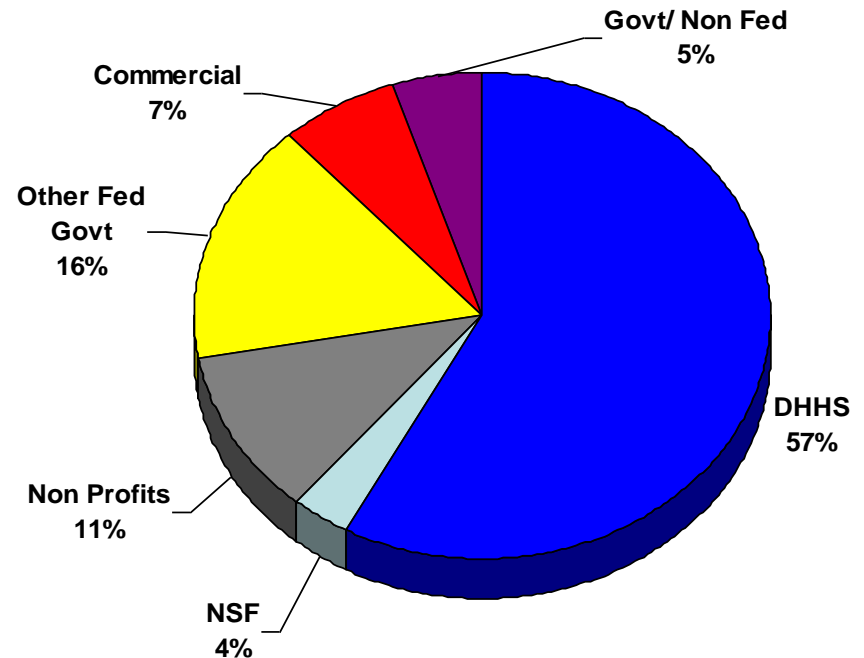
A Top Tier Research Institution

Awards, All Sponsors



*includes ARRA awards

Awards by Sponsor Type



University of Pennsylvania

Economic Impact of a Research Institution

- Penn's R&D direct impact on the region and Pennsylvania, selected statistics:

CITY	COMMONWEALTH
\$1.3 billion in total expenditures	\$1.9 billion in total expenditures
supporting 5,400 jobs	supporting 15,500 jobs
generating \$240 million in salaries and wages	generating \$650 million in salaries and wages
\$11 million in taxes	\$42 million in taxes

- Sponsored research underwrites much more than faculty salaries, by example per investigator
 - 3 undergraduates mentored
 - 2 graduate students supported
 - 1 post-doctoral student funded
 - And numerous technical research staff and administrative staff receive direct benefits from sponsored dollars

* Ecoconsult Corporation, 2010 & STAR Metrics

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Economic Impact of a Research Institution

- Penn's R&D indirect impact on the region and Pennsylvania, selected statistics:

COMMERCIALIZATION

FROM FY 06 TO FY 10, PENN'S CENTER FOR TECHNOLOGY TRANSFER:

SECURED

262

US PATENTS

GENERATED

1,637

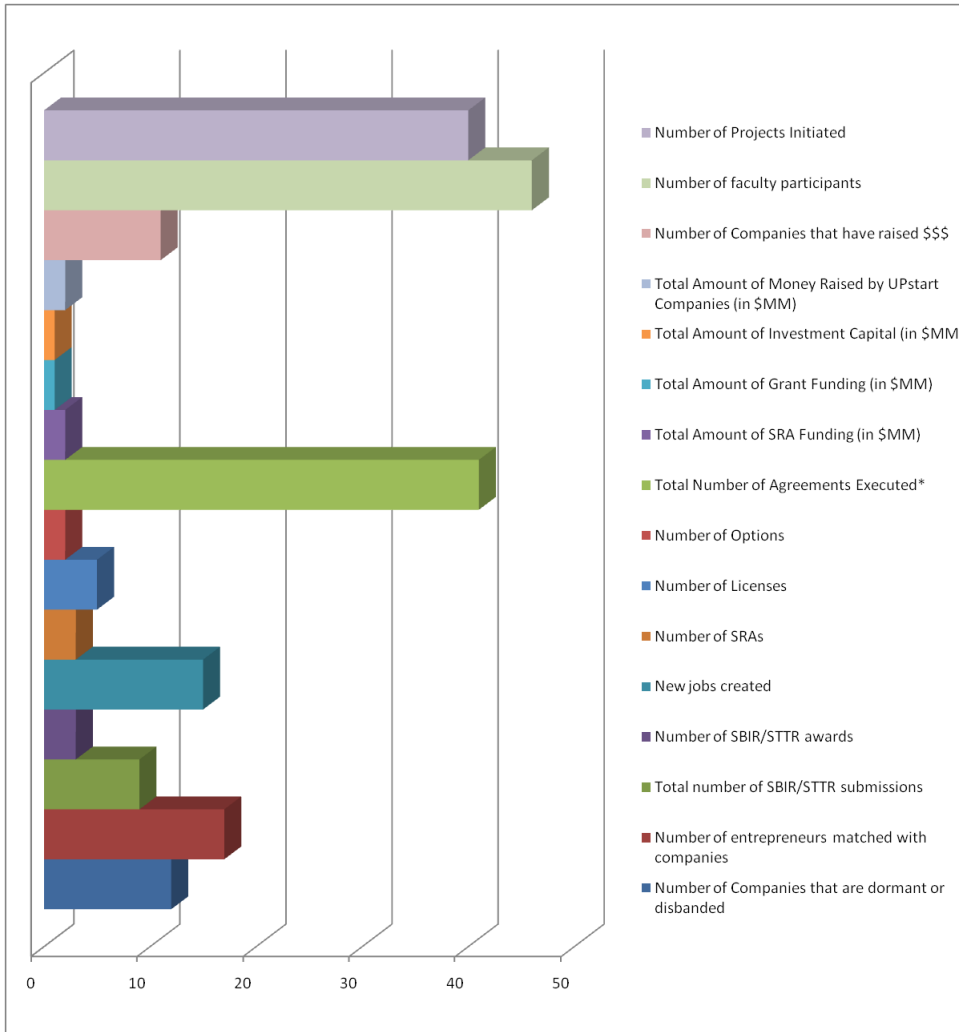
INVENTION
DISCLOSURES

COMPLETED

322

COMMERCIALIZATION
AGREEMENTS

* University of Pennsylvania

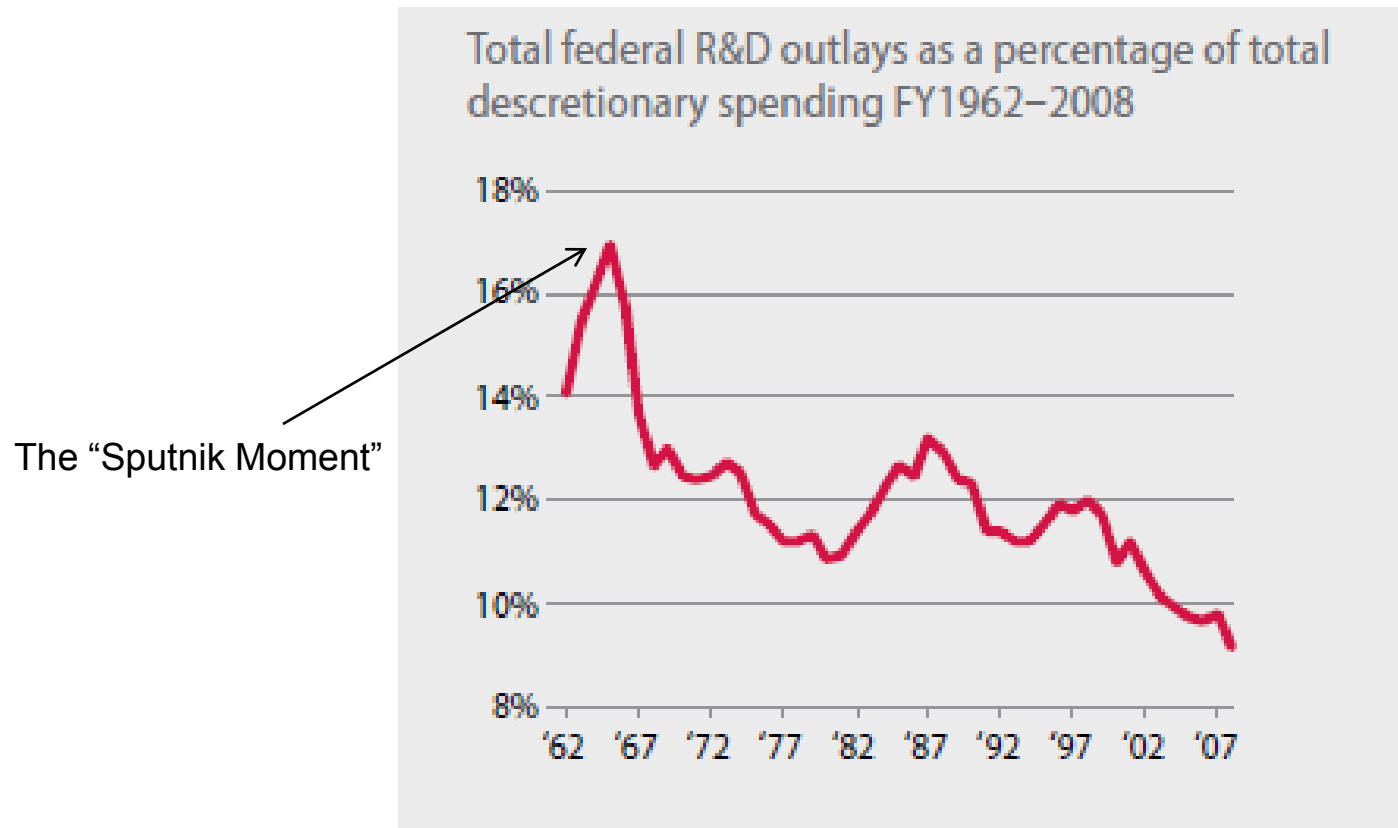


* Does not include executed 40 UPstart Company Formation Agreements

- **40** UPstart Projects initiated since program launch in May 2010
- UPstart Companies have collectively raised over **\$2M** in grant funds and investment capital thus far
- UPstart Companies have provided almost **\$2M** in SRA grant support to Penn labs
- **15** new jobs have already been created via companies launched from the UPstart Program
- **2** new UPstart projects launched every month
- **4-5** new meetings with potential UPstart candidates per month
- **125** entrepreneurs and **75+** funding sources in current UPstart network
- Over **50** other universities have approached UPstart to adopt model

A Growing Concern

The Funding Gap



* *Science Progress*, 2011

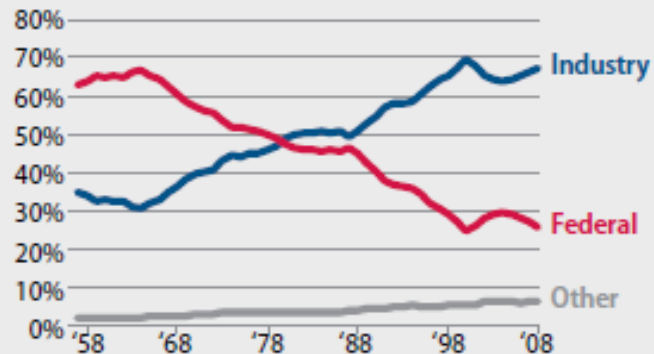
A Growing Concern

The Funding Gap

Total U.S. R&D Investment by sector

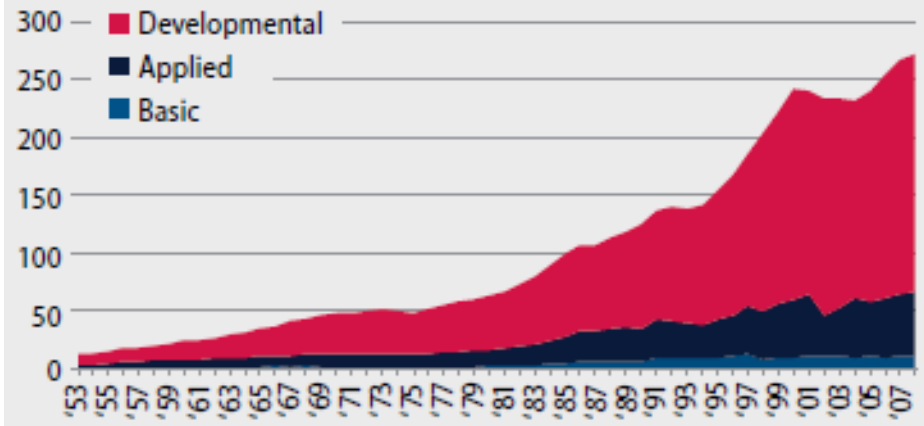
Proportion of national R&D investments coming from the public, private, and non-profit sectors

Percent of expenditures



Trends in private sector R&D investment

Billions of 2010 dollars



* Science Progress, 2011

Thank You

Questions?