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# RESEARCH REPORT

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UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

# THE POWER OF ILLINOIS RESEARCH AND INNOVATION

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#1

Illinois regularly leads  
the U.S. in National Science  
Foundation-funded research.



One of the U.S.'s most vibrant  
Research Parks, supporting  
tech transfer and economic  
development.



Globally recognized programs  
in the arts and humanities,  
engineering, chemistry,  
business, agriculture, and  
dozens of other disciplines.



Ten research institutes that  
transcend boundaries to  
address global challenges.

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**THAT'S IMPACT AND INNOVATION.  
THAT'S THE POWER OF I.**

## BY THE NUMBERS AT ILLINOIS



**\$689M**

Total research expenditures, FY20



**3,053**

Faculty members

1,962 tenure/tenure track  
1,091 specialized



**874**

Earned doctorates

From the NSF Survey of Earned Doctorates



**33,492**

Undergraduate students



**18,839**

Graduate students



**18%**

International students



**3M+**

Square footage for research



**150+**

Centers, laboratories, and research institutes



**14M**

Volumes in the University Library collection

## HIGHLIGHTS



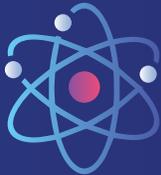
UIUC named a National Security Agency Featured School, the 5th in the U.S.



Prairie Research Institute awarded \$25M by the DOE for the design of a new type of power plant.



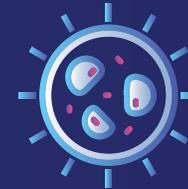
\$50M C3.ai Digital Transformation Institute launched in partnership with C3.ai, Microsoft, and leading U.S. universities.



Illinois Quantum Information Science and Technology Center awarded \$25M from the NSF to launch a Quantum Leap Challenge Institute.



CO+RE: The Community + Research Partnership Program started to foster community-campus partnerships and civic scholarship.



The Carl R. Woese Institute for Genomic Biology awarded \$12.5M for a new NSF Biology Integration Institute.



UIUC partnered with other universities to form the NSF-supported Institute for Mathematical and Statistical Innovation.



The Humanities Research Institute launched in summer 2020. HRI is home to the Mellon-funded Humanities Without Walls initiative.



Illinois Regenerative Agriculture Initiative launched to create resilient agriculture and food systems.



Illinois selected to lead two of seven new national AI institutes: AI FARMS and the Molecule Maker Lab.



Six Illinois faculty members elected as American Academy of Arts and Sciences Fellows and three named to the 2020 Clarivate Analytics Highly Cited Researchers list.



NAGPRA office established to work in partnership with tribes to return collections to descendant communities.

## RESEARCH EXPENDITURES

### TOTAL RESEARCH AND DEVELOPMENT EXPENDITURES\*

FY16 - FY20



\*HERD results include cost sharing, unreimbursed F&A, and non-sponsored institutional research support.

### TOTAL SPONSORED FEDERAL RESEARCH AND DEVELOPMENT EXPENDITURES\*

FY16 - FY20

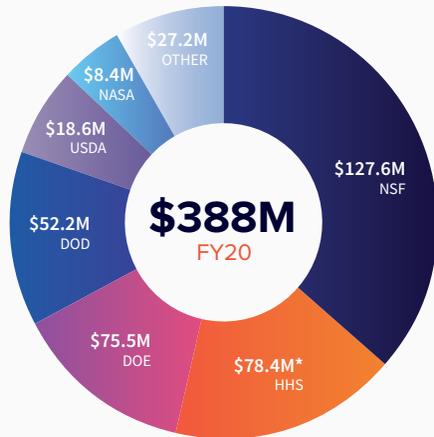


\*Federal prime awardee includes dollars passed through other entities.

## CORPORATE SUPPORT

### TOTAL EXPENDITURES BY FEDERAL AGENCY

FY20

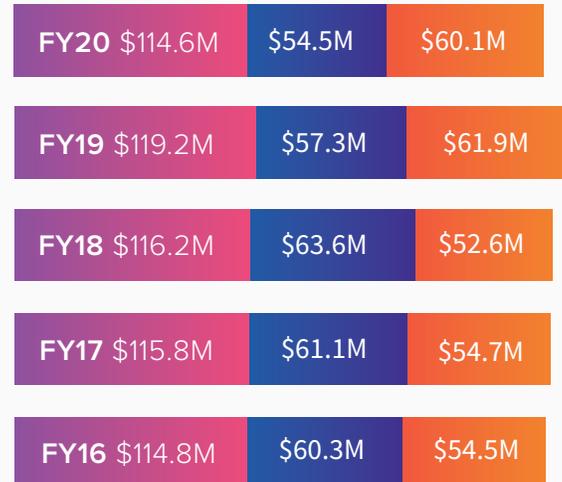


- National Science Foundation
- Department of Health and Human Services
- Department of Energy
- Department of Defense
- Department of Agriculture
- National Aeronautics and Space Administration
- Other

Includes National Institutes of Health.

### TOTAL CORPORATE CONTRACT AND PHILANTHROPIC SUPPORT

FY16 - FY20



- Contracts
- Philanthropy

## ILLINOIS RESEARCH INSTITUTES

Converge | Research | Innovate | Create

It started with a bold idea—bring researchers from different disciplines together under one roof and see what happens! More than 30 years later, we've set the standard for a new way of addressing global challenges like sustainability, food insecurity, and health, while developing new products, technologies, and innovations.

Together, the ten Illinois research institutes transcend college, school, and departmental boundaries to elevate ideas, drive discovery, and push the boundaries of our knowledge.





- 1 Beckman Institute for Advanced Science and Technology**  
Harnessing interdisciplinary collaboration to produce advances in imaging, molecular science, and intelligent systems that wouldn't happen in individual units
- 2 C3.ai Digital Transformation Institute**  
Accelerating the benefits of AI for business, government, and society
- 3 Cancer Center at Illinois**  
Cancer research and educational programs that unite campus strengths in science and engineering
- 4 Carl R. Woese Institute for Genomic Biology**  
Team-based fundamental and applied genomics research in health, energy, agriculture, and technology
- 5 Center for Social and Behavioral Science**  
Research in grand societal challenges like poverty, health behavior, globalization, food insecurity, and more
- 6 Humanities Research Institute**  
Humanities, arts, and social sciences research into the cultural, historical, and imaginative boundaries of the human condition
- 7 Institute for Sustainability, Energy, and Environment**  
Actionable research in sustainability, energy, and environment-related topics
- 8 Interdisciplinary Health Sciences Institute**  
Coordination and acceleration of campuswide health research and innovation
- 9 National Center for Supercomputing Applications**  
Computational expertise to develop simulations and models that cannot be created in labs
- 10 Prairie Research Institute**  
Research, expertise, and data to steward our nation's natural and cultural resources

## RESEARCH INFRASTRUCTURE

The University of Illinois combines creativity, expertise, and imagination with cutting-edge facilities to conduct world-changing research. Below is a glimpse of the resources available to our research community.



### Family Resiliency Center

Family and nutrition research facility featuring a simulated family home and The Autism Program.



### IGB Core Facilities

Instrumentation for biological microscopy and image analysis, including microscopes, nuclear magnetic resonance, tissue processing, and 3D printing.



### Holonyak Micro + Nanotechnology Lab

One of the country's largest and most sophisticated university facilities for conducting photonics, microelectronics, biotechnology, and nanotechnology research.



### Beckman Biomedical Imaging Facility

Cutting-edge imaging facility with a soon-to-launch Siemens Terra 7T MRI scanner.



### Integrated Bioprocessing Research Laboratory

A lab and pilot plant that bridges the gap from basic discovery to commercialization of bioproducts.



### Krannert Art Museum

Expansive, permanent collection with over 10,000 works dating from the fourth millennium BCE to the present, representing numerous cultures.



### Rare Book and Manuscript Library

One of the largest publicly accessible special collections in the U.S., with over 600K volumes and two miles of manuscripts.



### Roy J. Carver Biotechnology Center

Tools and services that support discovery in genomics, proteomics, and metabolomics.



### Materials Research Lab

Advanced instrumentation for materials research, including 140+ instruments.



### Veterinary Diagnostic Laboratory

Diagnostic medical testing for infectious agents, toxins, and other causes of disease in animal diagnostic samples.



### Krannert Center for the Performing Arts

Five unique indoor stages and an outdoor amphitheater that facilitate the realization of innovative artistic projects.



### Energy Farm

A gigantic, 320-acre “living laboratory” on UIUC’s South Farms focused on alternative energy resources, sustainable food production and environmental stewardship.

## RESEARCH PARK

The Research Park is a technological hub for corporate research and development operations and startup companies. Companies large and small locate here to harness university innovation, a skilled workforce, and a tech-friendly community.



125 COMPANIES HAVE FACILITIES IN RESEARCH PARK, INCLUDING:

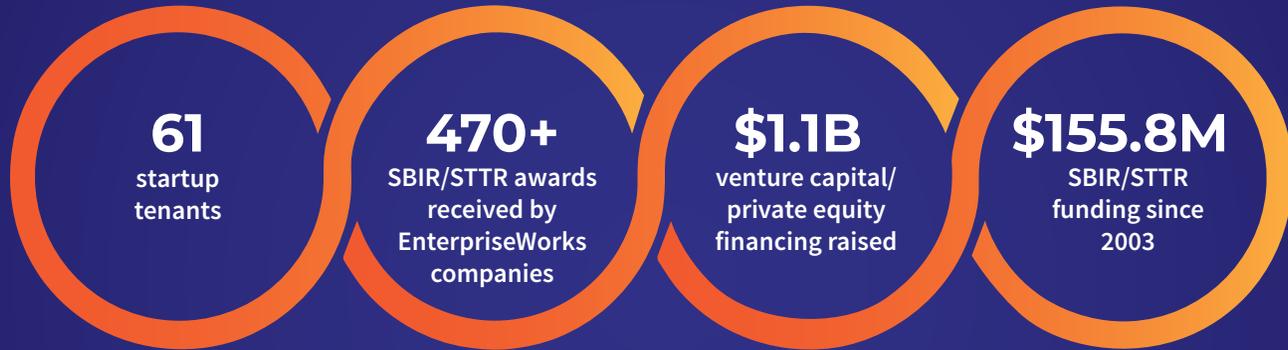


BRUNSWICK



## ENTERPRISEWORKS STARTUP INCUBATOR

EnterpriseWorks is a 43,000-square-foot startup incubator for early-stage tech firms operated by the University of Illinois to help launch successful scientific and research-based startup companies.



## TECHNOLOGY COMMERCIALIZATION

In FY20, the Office of Technology Management:



Received 215 new invention reports



Executed 60 licenses and options\*



Filed 201 U.S. patent applications

\*Including 10 first licenses to start-ups using University IP.

## RESEARCH AND STUDENT EDUCATION

Illinois students are heavily involved in life-changing research with world-renowned researchers in state-of-the-art facilities.



Whether exploring regenerative medicine, examining climate change, or developing new ways to archive historical documents, UIUC fosters unique opportunities for students to gain practical experience and evolve into the next generation of scholars and leaders.



Illinois researchers have devised novel approaches to test, treat, analyze, and manage COVID-19. Below are a few highlights.

1

Founded the Illinois National COVID-19 Registry, a repository of biological samples and data for use by the nation's researchers.

2

Developed a saliva-based testing program for use on campus, the state, and across the nation.

3

Created and analyzed multiple COVID-19 epidemic models for the State of Illinois.



UNIVERSITY OF  
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**OFFICE OF THE VICE CHANCELLOR  
FOR RESEARCH AND INNOVATION**

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

601 E. JOHN STREET, CHAMPAIGN, IL 61820

RESEARCH.ILLINOIS.EDU | OVCRI@ILLINOIS.EDU

@UOFIRESEARCH | #ILLINOISRESEARCH