



THE WISTAR INSTITUTE



**A GLOBAL LEADER
IN BIOMEDICAL RESEARCH**

A world leader in early stage discovery science in cancer, immunology and infectious diseases

Wistar by the Numbers



307

Total Employees
(Paid)



32

Labs



65

Postdoctoral
Fellows



103

Published
Collaborative
Manuscripts



23

Countries
Represented

(As of 2022)

Wistar *First and Forward*

- First independent biomedical research institute in U.S. (founded 1892)
- First NCI-designated Basic Cancer Center (continued recognition and support since 1971)
- Created vaccines for rubella (German measles), rabies and rotavirus
- Engineered novel synthetic DNA-encoded monoclonal antibodies targeting Zika and Zaire ebolavirus, and helped advance a novel antibody delivery approach for COVID-19
- Ranked among nation's top 3 drivers of innovation, research and tech transfer (Heartland Forward)
- Placed in the 1st percentile for innovation and 8th percentile for research among the leading academic and research-related institutes (SCImago Institutions Rankings)





NATIONAL CANCER INSTITUTE DESIGNATED
**ELLEN AND RONALD
CAPLAN CANCER CENTER**

- **In 1972, Wistar became the first National Cancer Institute (NCI)-designated Basic Cancer Center in the nation** and continues to uphold the highest rating of “Exceptional.” In 2022, the Institute was the first NCI-designated Basic Cancer Center to earn a merit extension.
- **The Center has a history of seminal advances, including:**
 - identification of genes associated with different tumor types
 - development of monoclonal antibodies used to study pathways and proteins involved in tumor development
 - pioneering contributions and translational research to create improved cancer treatments, diagnostic tests and precision medicines
- **Currently, Wistar researchers are developing new therapies and personalized cancer treatments** by studying the tumor microenvironment, cancer genomics and epigenetics, mechanisms of therapy resistance, tumor immunology, and tumor cell metabolism.

THE ELLEN AND RONALD CAPLAN
CANCER CENTER IS **MAKING**
ADVANCES IN THREE PROGRAM
AREAS:

- 1 Gene Expression
and Regulation
- 2 Molecular and
Cellular Oncogenesis
- 3 Immunology,
Microenvironment
and Metastasis





VACCINE & IMMUNOTHERAPY CENTER

- **The Vaccine & Immunotherapy Center accelerates research to advance drug development**, including vaccines, personalized treatments and therapies, and new diagnostic tests, as well as research addressing future/potential pandemics.
- **Wistar scientists created or co-developed vaccines** against rubella, rabies, and rotavirus; and created the standard-of-care protections for the type 1 attenuated polio strain, and the diploid cell lines that allow production of MMR vaccine.
- **Wistar's WI-38 cell line** served as the basis for the advancement of many safe vaccines, including those against rubella and rabies.
- **Wistar scientists were among the first to develop** antiviral monoclonal antibodies that have been widely used as tools for basic research, and therapies against cancer and immune diseases.
- **Currently, Wistar researchers are studying** SARS-CoV-2, Zika, HIV, HPV, MERS, Ebola, Influenza, rabies, microorganisms, and immune-based approaches to treat cancer.



**MORE THAN 3 BILLION CHILDREN
HAVE BEEN PROTECTED BY
WISTAR VACCINES.**



SCHOEMAKER EDUCATION AND TRAINING CENTER

○ **From high school to pre-apprenticeship and apprenticeship, and bachelor's degree to postdoctoral training, the Hubert J.P. Schoemaker Education and Training Center** incorporates cutting-edge, hands-on, classroom curricula for diverse students to enter the life science career pipeline.

○ **The range of immersive programs:**

- High School Program in Biomedical Research
- Biomedical Technician Training Registered Pre-Apprenticeship
- Fox Biomedical Research Technician Registered Apprenticeship
- Quality Science Pathway Apprenticeship
- Undergraduate Programs
 - » Research Experience for Undergraduates
 - » Life Science Innovation Course
 - » Cheyney University Collaboration

○ **Graduate Programs in collaboration with the University of Pennsylvania, Saint Joseph's University, Drexel University, and the University of Bologna**



100

**ANNUALLY MORE THAN 100
STUDENTS AND FELLOWS
ARE TRAINING AT THE
WISTAR INSTITUTE.**

○ Postdoctoral Programs


- Wistar Postdoctoral Training Program
- The Wistar Schoemaker International Postdoctoral Fellowship

○ Caspar Wistar Fellows Program



CENTER FOR ADVANCED THERAPEUTICS

- **The Wistar Institute Center for Advanced Therapeutics will amplify Wistar's proud tradition of creating medicines of tomorrow**, serving as a fertile environment where new ideas and concepts will become medicines designed to revolutionize the treatment of some of the most complex and challenging human diseases.
- **The Center will focus** solely on the custom design and development of tailored, next-generation, immunotherapy-based medicines.
- **The Center will bridge** immunotherapy and vaccine biology with small molecule chemicals.
- **The core scientific objectives** of the Center will be fueled by collaborative research in immunology, next-generation sequencing technologies, chemical and structural biology, and computational, artificial intelligence (AI)-driven systems.



A \$20 MILLION ANONYMOUS GIFT
SUPPORTS THE CENTER'S UNEXPLORED
RESEARCH AREAS THAT HAVE
**TRANSFORMATIONAL THERAPEUTIC
POTENTIAL**, INCLUDING:

- the diversity of B cell and T cell repertoires
- novel drug-target interfaces, cancer neoepitopes
- groundbreaking vaccine platforms



Groundbreaking “team science” advances in world health

Wistar’s exceptional team of international scientists engage with academic institutions and life science sector industry partners and pursue novel biomedical research to advance early-stage medical and therapeutic discoveries that solve some of the world’s most important problems in the fields of cancer, immunology and infectious diseases.

With the generous support of donors and funding from federal and private sources, Wistar scientists chart an ambitious and far-reaching program of exceptional basic and translational cancer and infectious disease research, and build a life science ecosystem centered on collaboration, education and innovation.

wistar.org/give-join/donate



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