NIH NATIONAL CANCER INSTITUTE

Center for Strategic Scientific Initiatives

CSSI promotes innovation in cancer research through the development of resources, standards, and infrastructures and through investments in exploratory programs. These efforts are carried out in collaboration with interdisciplinary experts and partners across industry and government.

Funding Opportunities

Grant-based support for research projects, training and education, and cooperative agreements.

https://cssi.cancer.gov/resources

Exploratory Programs

Spearheading research pilots that address gaps related to standards, new technologies, and healthcare.

Resources for Research

Assay Portal
https://proteomics.cancer.gov/assay-portal

Antibody Portal
https://proteomics.cancer.gov/antibody-portal

Data Portal
https://proteomics.cancer.gov/data-portal

Data Coordinating Center
https://cssi-dcc.nci.nih.gov/cssiportal/

Research Areas

Standards Development	Technology Development	Interdisciplinary Science	Precision Oncology	Data Science
Commitments to developing standards in nascent and challenging research fields.	Support for researchers throughout the technology development timeline.	Initiatives and pilot programs that support and pursue research in diverse scientific fields.	Large-scale efforts to understand the molecular basis of cancer through proteogenomic analysis.	Investments in generating, analyzing, and publicly sharing molecular data.

cssi.cancer.gov

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Standards Development

HPV Serology Lab

The HPV serology program is an international, collaborative initiative led by NCI to address the lack of standardized assays and reagents available to researchers for use in vaccine trials.

Technology Development

Innovative Molecular Analysis Technologies (IMAT)

The IMAT program supports the development of potentially transformative, next generation technologies in cancer research. IMAT is involved throughout the technology development timeline, from proof-of-concept demonstration to rigorous analytical validation.

https://imat.cancer.gov/

Interdisciplinary Science

Provocative Questions (PQ)

The PQ initiative stimulates research in understudied and difficult-to-address areas across the cancer research continuum. The twelve currently available PQs were assembled based on recommendations from NCI's extramural research community and address important gaps in the biological understanding of cancer.

https://provocativequestions.nci.nih.gov/

Precision Oncology

Clinical Proteomic Tumor Analysis Consortium (CPTAC)

CPTAC is a national effort that applies proteogenomic strategies to advance precision oncology and provides high-quality, open-access resources (data, assays, and reagents) to the scientific community.

https://proteomics.cancer.gov/programs/cptac

International Cancer Proteogenome Consortium (ICPC)

ICPC promotes collaboration among globally-recognized cancer research centers to unify CPTAC-based workflows and strategies, publicly share data that represents the diversity of people and commonly diagnosed cancers in their unique populations, and translate to patient care.

https://proteomics.cancer.gov/programs/international-cancer-proteogenome-consortium

Applied Proteogenomic OrganizationaL Learning and Outcomes Network (APOLLO)

The APOLLO network incorporates CPTAC-developed proteogenomics workflows into the DoD and VA learning healthcare systems, allowing for longitudinal patient monitoring to better inform patient care.

https://proteomics.cancer.gov/programs/apollo-network

Data Science

Big Data Scientist Training Enhancement Program (BD-STEP)

Recognizing the rapidly expanding volume of healthcare data, BD-STEP was launched in partnership with the Veteran's Health Administration (VHA) to develop a diverse pool of specialists capable of employing data science in clinical cancer research.

https://nciphub.org/groups/bdstep/overview