#### **OD CSSI**

### Innovative Molecular Analysis Technologies (IMAT) Launch 1998

NCI established the IMAT program to support the development of next-generation analytical methodologies and tools that have the potential to revolutionize the way that research can be pursued.

## Proteomics Planning Workshop April 2002

Proteomics Planning Workshop was held by the National Cancer Institute, National Human Genome Research Institute, and National Institute of General Medical Sciences.

# Proteomics for Early Cancer Detection Workshop April 2003

# FDA/NCI Interagency Oncology Task Force (IOTF) May 2003

IOTF was formed as a multi-part agency effort to enhance the efficiency of clinical research and the scientific evaluation of new cancer medications. The goal of the IOTF is to leverage the expertise and capabilities of both agencies for the purpose of streamlining and accelerating the overall development of diagnostic, preventive, and therapeutic interventions for cancer.

## Cancer Nanotechnology Phase I approval by NCI Board of Scientific Advisors (BSA) July 2004

Phase I: Alliance for Nanotechnology in Cancer (ANC) is an integrated initiative to transform clinical oncology and inform basic cancer research through the directed application of nanotechnology. NCI BSA voted to approve the proposal.

# Proteomic Technologies Informatics Workshop February 2005

# The Cancer Genome Atlas (TCGA) February 2005

TCGA was proposed as a major initiative to the National Cancer Advisory Board.

# Cancer Genetic Markers of Susceptibility (CGEMS) Launch February 2005

The CGEMS project was launched in 2005 to identify common inherited genetic variations associated with risk for breast and prostate cancer. In collaboration with extramural scientists, NCI's Division of Cancer Epidemiology and Genetics has developed the CGEMS initiative into a robust research program involving genome-wide association studies (GWASs) for a number of cancers and, more recently, exposures and survival.

# Strategies to Integrate Biomarkers Into Cancer Clinical Trials Workshop February 2005

### Proteomic Affinity/Capture Methods Workshop March 2005

# The Cancer Genome Project Proposal Presented to NCI Board of Scientific Advisors (BSA) November 2005

The mission of this proposed initiative is to develop a systematic approach to identifying genetic alterations of cancer that have meaningful clinical impact on a few rationally selected cancer types.

### The Cancer Genome Atlas (TCGA) Approval December 2005

NCI and the NHGRI launched TCGA as a collaborative 3-year pilot project to test the feasibility of using large-scale genome analysis technologies to determine all of the important genomic changes involved in cancer.

### Clinical Proteomic Technologies for Cancer (CPTC) Phase I Launch October 2006

CPTC was launched to foster the building of an integrated foundation of proteomic technologies, data, reagents and reference materials, and analysis systems to systematically advance the application of protein science to accelerate discovery and clinical research in cancer.

# Biospecimen Research Network (BRN) Launch November 2006

BRN began to systematically address the impact of specific variables in individual specimen types on molecular data from given analysis platforms.

## Integrating and Leveraging the Physical Sciences to Open a New Frontier in Oncology February 2008

"Integrating and Leveraging the Physical Sciences to Open a New Frontier in Oncology" think tank convened in Washington, DC.

# Cancer Nanotechnology: In vitro Diagnostic and Prevention Therapy and Post-Treatment In vivo Diagnostic and Imaging March 2008

Strategic Workshops on Cancer Nanotechnology were held: In vitro Diagnostic and Prevention Therapy and Post-Treatment In vivo Diagnostic and Imaging workshops.

### TARGET Initiative Launch March 2008

The goal of NCI's Therapeutically Applicable Research to Generate Effective Treatments (TARGET) Initiative is to identify valid therapeutic targets in childhood cancers so that new, more effective treatments can be rapidly developed.

# A New Look at Evolution and Evolutionary Theory in Cancer July 2008

"A New Look at Evolution and Evolutionary Theory in Cancer" think tank convened in Washington, DC.

# Physical Sciences-Based Frontiers in Oncology: The Coding, Decoding, Transfer, and Translation of Information in Cancer October 2008

"Physical Sciences-Based Frontiers in Oncology: The Coding, Decoding, Transfer, and Translation of Information in Cancer" think tank convened in Washington, DC.

# Phase II: Alliance for Nanotechnology in Cancer (ANC) Approval by NCI Board of Scientific Advisors (BSA)

November 2008

BSA approves reissuance of Phase II: ANC. Reissuance will provide for an increased focus on complete technology solutions leveraging collaborative efforts within the centers and across centers and platforms, including a redesigned training program.

## The Cancer Genome Atlas (TCGA) Phase II Approval by NCI Board of Scientific Advisors (BSA) November 2008

The mission of the Network's pilot project is to assess the feasibility of a full-scale effort to identify and catalogue genomic alterations, including mutations, translocations, methylation of chromatin marks, and gene expression, using three different cancer types: brain, lung, and ovary. The BSA approves TCGA Phase II program, an increase to 20 tumor types beyond those studied in the pilot project.

### Physical Sciences Oncology Program Presented to NCI Board of Scientific Advisors (BSA) November 2008

The NCI proposes to build a collaborative network of Physical Sciences—Oncology Centers that will bring physical scientists and cancer researchers together to address key questions in cancer research that involve physical laws and principles.

### Physical Sciences-Oncology Centers (PS-OC) Launch October 2009

The NCI explores new and innovative approaches to better understand and control cancer through initiatives that enable the convergence of the physical sciences with cancer biology. The Physical Sciences in Oncology initiative will establish scientific teams and individual scientists from the fields of physics, mathematics, chemistry, and engineering to examine cancer using approaches that have not been followed in cancer research to date.

# Clinical Proteomic Technologies for Cancer (CPTC) Phase II Concept Approval by NCI Board of Scientific Advisors (BSA) March 2010

CPTC BSA approves CPTC reissuance. The CPTAC initiative was launched in 2006 to address technical barriers related to discovery and verification in proteomics, as well as issues concerning biospecimens, statistical issues in experimental design, data acquisition and analysis, and lack of standards and high-quality reagents.

#### I-SPY 2 Trial March 2010

The Biomarkers Consortium, a unique public-private partnership led by the U.S. Food and Drug Administration, National Institutes of Health, and Foundation for the National Institutes of Health announced I-SPY 2 Trial, a clinical trial to help screen promising new drugs being developed for women with high-risk, fast-growing breast cancer.

# Alliance for Nanotechnology in Cancer (ANC) Phase II Launch September 2010

NCI Board of Scientific Advisors approves second phase of the program with an investment of approximately \$30M per year for the next 5 years.

National Academy of Sciences: Dr. Jerry S.H. Lee presents "E Kamakani Noi`l: Wind that Seeks Knowledge"

January 2011

#### **VIEW MORE LINKS:**

Agenda: http://www.hawaii.edu/offices/op/innovation/speaker-list.html

Slides: <a href="http://www.hawaii.edu/offices/op/innovation/lee.pdf">http://www.hawaii.edu/offices/op/innovation/lee.pdf</a>

Video: <a href="http://player.vimeo.com/video/19757356?byline=0&portrait=0&color=b3995d">http://player.vimeo.com/video/19757356?byline=0&portrait=0&color=b3995d</a>

Cancer Target Discovery and Development (CTD<sup>2</sup>) Network Concept Approval by NCI Board of Scientific Advisors (BSA)

March 2011

The BSA approves CTD<sup>2</sup> Network RFA concept.

**National Academy of Sciences:** Dr. Jerry S.J. Lee presents "Meeting Global Challenges: German-US Innovation Policy"

May 2011

**VIEW MORE LINKS:** 

Agenda: http://www.bigs-potsdam.org/files/Innovation\_Programm.pdf

Slides: http://cssi.cancer.gov/NAS Presentation- Berlin 052511- Final for Distribution.pdf

BSA Approves New RFA for NCI's "Provocative Questions" June 2011

http://deainfo.nci.nih.gov/advisory/bsa/bsa0611/presentations/Lowy.pdf

Request for Application for NCI's "Provocative Questions" August 2011

http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-11-011.html http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-11-012.html

Office of Cancer Clinical Proteomics Research (OCCPR) Announces Launch of a Clinical Proteomic Tumor Analysis Consortium August 2011

http://proteomics.cancer.gov/programs/cptacnetwork

TCGA Holds First Annual Scientific Symposium – Enabling Cancer Research Through TCGA November 2011

Investigators from around the world shared their novel biological discoveries, analytical methods, and translational approaches using TCGA data.

http://www.capconcorp.com/meeting/2011/TCGA/default.asp

**National Academy of Sciences:** Dr. Jerry S.H. Lee presents "Opportunities for Cooperation Current Initiatives at the U.S. National Cancer Institute"

March 2012

**VIEW MORE LINKS:** 

Agenda: http://www.us-czic.org/index.php?option=com content&view=article&id=60&Itemid=68

Video: http://www.us-czic.org/ppt/panel2/Lee/Untitled-90/Player.html

Slides: http://www.us-czic.org/000/Day-1-afternoon/02\_Lee.pdf

#### **OBBR**

## Innovative Molecular Analysis Technologies (IMAT) Launch 1998

NCI established the IMAT program to support the development of next-generation analytical methodologies and tools that have the potential to revolutionize the way that research can be pursued. First authorization for the IMAT program with two program announcements (PA) allows for several phased innovation awards (R21/R33, R41/R42, R43/R44). http://innovation.cancer.gov/

### BSA Received Report on IMAT November 2000

Advised future PI meetings should be posted on OTIR website; reauthorization/reissuance of all funding opportunities for 3 years as program announcement and referral (PAR). http://deainfo.nci.nih.gov/advisory/bsa/archive/bsa1100/bsa1100.pdf

### BSA Reported IMAT Involved in New Grant Mechanism – Phased Innovation Award June 2001

http://deainfo.nci.nih.gov/advisory/bsa/archive/bsa0601/bsa0601.pdf

### BSA Received Report on IMAT and Approved Three RFA Concepts June 2003

The R33 mechanism is in companionship with SBIR/STTR mechanisms designed for small businesses.

http://deainfo.nci.nih.gov/advisory/bsa/bsa0603/26jun03mins.pdf

# National Biospecimen Network (NBN) Blueprint Published September 2003

The NBN provides a key infrastructure to harness the potential of new technologies for cancer research, while ensuring that the privacy interests of biospecimen donors are preserved. It creates a comprehensive framework for sharing and comparing research results through a robust, flexible, scalable, and secure bioinformatics system that supports the collection, processing, storage, annotation, and distribution of biospecimens and data using standard operating procedures based on best practices. <a href="http://biospecimens.cancer.gov/global/pdfs/FINAL\_NBN\_Blueprint.pdf">http://biospecimens.cancer.gov/global/pdfs/FINAL\_NBN\_Blueprint.pdf</a>

### NCAB Received Update on IMAT Program June 2004

http://deainfo.nci.nih.gov/advisory/ncab/130 0604/02jun04mins.pdf

# Analysis of NCI-Supported Biospecimen Resources Reported to National Cancer Advisory Board (NCAB)

November 2004

NCI addresses the goals of (1) providing information on the makeup, quality, responsiveness, cost-effectiveness, and degree of patient protection of resources and (2) determining the extent to which they are aligned to optimize and accelerate the discovery, development, and delivery of genomic- and proteomic-based cancer interventions.

http://deainfo.nci.nih.gov/advisory/ncab/132\_1104/30nov04mins.pdf

BSA Received Report from Dr. Richard Smith, Battelle Fellow, William R. Wiley Environmental Molecular Sciences Laboratory on 1998 IMAT Grant: Advances in Mass Spectrometry in Serum-Based Proteomics

March 2005

http://deainfo.nci.nih.gov/advisory/bsa/bsa0305/07mar05mins.pdf

### National Biospecimen Network (NBN) Update to NCI Board of Scientific Advisors (BSA) June 2005

The NBN is a plan for beginning to analyze how to ensure that biospecimen repositories are positioned to support "big science" as well as R01 science.

http://deainfo.nci.nih.gov/advisory/bsa/bsa0605/27jun05mins.pdf

# NCAB Received Update on Human Cancer Genome Project that Referenced IMAT Program September 2005

http://deainfo.nci.nih.gov/advisory/ncab/135\_0905/20sep05mins.pdf

## First-Generation Guidelines for NCI-Supported Biorepositories April 2006

First-Generation Guidelines for NCI-Supported Biorepositories, published in the Federal Register, is a step toward unifying policies and procedures for NCI-supported biorepositories and to form the basis for additional OBBR initiatives. In 2007 it was renamed NCI Best Practices for Biospecimen Resources.

# NCAB Received Extensive Progress Report on IMAT September 2006

http://deainfo.nci.nih.gov/advisory/ncab/139\_0906/06sep06mins.pdf

### Biospecimen Research Network (BRN) Launch November 2006

BRN began to systematically address the impact of specific variables in individual specimen types on molecular data from given analysis platforms.

http://biospecimens.cancer.gov/researchnetwork/default.asp

# Biospecimen Research to Enable Molecular Medicine Update to the NCI Board of Scientific Advisors (BSA)

June 2007

BSA receives a report on the BRN that, by using a systematic, comprehensive approach to improve biospecimen quality for research and clinical medicine, the NCI has developed two state-of-the-science guidances for biobanking: NCI Best Practices for Biospecimen Resources and Biospecimen Resource Evaluation Tool (BRET).

http://deainfo.nci.nih.gov/advisory/bsa/bsa0607/28jun07mins.pdf

# BSA Received Report on IMAT and Approved Reissuance of IMAT RFA Extending R21 to 3 Years and Not Linking R21 and R33 Grants June 2007

http://deainfo.nci.nih.gov/advisory/bsa/bsa0607/28jun07mins.pdf

# First Annual Biospecimen Research Network Symposium: Advancing Cancer Research Through Biospecimen Science March 2008

The primary goal of the symposium was to highlight the significant impact of pre-analytical biospecimen variables on cancer research and molecular medicine.

http://biospecimens.cancer.gov/meeting/brnsymposium/2008/

### Bioeconomics Workshop June 2008

"Economic Considerations for Implementing the NCI Best Practices for Biospecimen Resources". For further information, please view June 2011 JNCI Monograph at http://jncimono.oxfordjournals.org/content/2011/42.toc.

# Second Annual Biospecimen Research Network Symposium: Advancing Cancer Research Through Biospecimen Science March 2009

The primary goal of the symposium was to highlight the significant impact of pre-analytical biospecimen variables on cancer research and molecular medicine. Updates on research projects focused on pre-analytical biospecimen variables.

http://biospecimens.cancer.gov/meeting/brnsymposium/2009/

# Administrative Working Group Established to Provide Planning Recommendations with Respect to the caHUB May 2009

caHUB Administration Working Group (AWG) included a wide range of experts and opinion leaders across relevant disciplines to produce key recommendations on components necessary to establish the caHUB. This was accomplished by formation of a series of strategic and operations subgroups that met over a period of approximately 9 months to develop recommendations, standard operating procedures (SOPs), best practices, research findings, and issues for consideration. http://cahub.cancer.gov/development/

# Third Annual Biospecimen Research Network Symposium: Advancing Cancer Research through Biospecimen Science March 2010

The primary goal of the symposium was to highlight the significant impact of pre-analytical biospecimen variables on cancer research and molecular medicine. Updates on research projects focused on pre-analytical biospecimen variables.

http://biospecimens.cancer.gov/meeting/brnsymposium/2010/

# SBIR Development Center Presented New SBIR/Small Business Technology Transfer (STTR) Concept to Support IMAT March 2010

RFA for single SBIR (R43/R44) approved.

http://deainfo.nci.nih.gov/advisory/bsa/bsa0310/08mar10mins.pdf

# Workshop on Release of Research Results to Participants in Biospecimen Studies July 2010

This workshop was planned to develop much-needed best practices and guidance on the sharing of findings from research on biospecimens with human research participants because the organizers recognize that the research community does not have consistent policies or best practices on the subject; that researchers, institutions, and institutional review boards (IRBs) might not be averse to sharing research findings; and that there is even less consensus concerning the disclosure of individual research results to study participants.

http://biospecimens.cancer.gov/global/pdfs/NCI\_Return\_Research\_Results\_Summary\_Final-508.pdf

### Common Fund Genotype-Tissue Expression (GTEx) Launch October 2010

OBBR's caHUB begins the first collection of biospecimens for the NIH Common Fund's GTEx program which aims to study human gene expression and regulation in multiple tissues, providing valuable insights into the mechanisms of gene regulation and, in the future, its disease-related perturbations. https://commonfund.nih.gov/GTEx/

# Fourth Annual Biospecimen Research Network Symposium: Advancing Cancer Research through Biospecimen Science March 2011

The primary goal of the symposium was to highlight the significant impact of pre-analytical biospecimen variables on cancer research and molecular medicine. Updates on research projects focused on pre-analytical biospecimen variables.

http://www.brnsymposium.com/

BSA Received Internal Evaluative Update and Authorized Reissuance of Four RFAs (R21/R33) through FY 2013

November 2011

http://deainfo.nci.nih.gov/advisory/bsa/bsa1111/1115%20Dickherber.pdf

#### **TCGA**

# Human Cancer Genome Project Update to NCI Board of Scientific Advisors (BSA) September 2005

The goal of this particular project is to initiate a 3-year pilot to address key questions, to determine the feasibility of a full-scale project that will ultimately facilitate development of a complete "catalogue" of all genetic alterations in cancer.

### The Cancer Genome Project Proposal Presented to NCI Board of Scientific Advisors (BSA) November 2005

The mission of this proposed initiative is to develop a systematic approach to identifying genetic alterations of cancer that have meaningful clinical impact on a few rationally selected cancer types.

### The Cancer Genome Atlas (TCGA) Approval December 2005

NCI and the NHGRI launch TCGA as a collaborative 3-year pilot project to test the feasibility of using large-scale genome analysis technologies to determine all of the important genomic changes involved in cancer.

### The Cancer Genome Atlas (TCGA) Pilot Project Launch October 2006

Awards were made to seven institutions to work as a network using advanced and complementary analysis technologies to strategically characterize genomic changes involved in the three types of cancers: brain (glioblastoma multiforme), lung (squamous cell), and ovarian serous cancer. Genomic changes studied included deletions, rearrangements, and amplification of large chromosomal segments.

## The Cancer Genome Atlas (TCGA) Awards Funds for Technology Development July 2007

As part of TCGA pilot project, the NIH awarded eight 2-year grants totaling \$3.4 million to support the development of innovative technologies for exploring the genomic underpinnings of cancer.

### The Cancer Genome Atlas (TCGA) Data Portal October 2007

TCGA Data Portal begins providing a platform for researchers to search, download, and analyze datasets pertaining to clinical information associated with cancer tumors and human subjects, genomic characterization, and high-throughput sequencing analysis of the tumor genomes.

### The Cancer Genome Atlas (TCGA) Phase II Approval by NCI Board of Scientific Advisors (BSA) November 2008

The mission of the Network's pilot project is to assess the feasibility of a full-scale effort to identify and catalogue genomic alterations, including mutations, translocations, methylation of chromatin marks, and gene expression, using three different cancer types: brain, lung, and ovary. The BSA approves TCGA Phase II program, an increase to 20 tumor types beyond those studied in the pilot project.

# **Genome Characterization Centers and Genome Data Analysis Centers August 2009**

Twelve awards weremade for both Genome Characterization Centers and Genome Data Analysis Centers.

# TCGA Holds First Annual Scientific Symposium – Enabling Cancer Research Through TCGA November 2011

Investigators from around the world shared their novel biological discoveries, analytical methods, and translational approaches using TCGA data.

http://www.capconcorp.com/meeting/2011/TCGA/default.asp

#### OCG

### Cancer Genome Anatomy Project (CGAP) Update to NCI Board of Scientific Advisors (BSA) November 2004

CGAP updates BSA informing members that the explosion of discovery in the biological sciences during the past 30 years has had a tremendous impact on the understanding of basic mechanisms of cellular growth regulation in cancer.

## Cancer Genetic Markers of Susceptibility (CGEMS) Launch February 2005

The CGEMS project was launched in 2005 to identify common inherited genetic variations associated with risk for breast and prostate cancer. In collaboration with extramural scientists, NCI's Division of Cancer Epidemiology and Genetics has developed the CGEMS initiative into a robust research program involving genome-wide association studies (GWASs) for a number of cancers and, more recently, exposures and survival.

### Therapeutically Applicable Research to Generate Effective Treatments (TARGET) November 2005

The NCI Board of Scientific Advisors (BSA) Subcommittee reports to the BSA committee on the background of the TARGET inititative.

### TARGET Initiative Launch March 2008

The goal of NCI's Therapeutically Applicable Research to Generate Effective Treatments (TARGET) Initiative is to identify valid therapeutic targets in childhood cancers so that new, more effective treatments can be rapidly developed.

# TARGET Initiative Update to NCI Board of Scientific Advisors (BSA) March 2009

The initiative seeks to identify genes altered in childhood cancers that participate in cellular pathways relevant for cancer genesis and progression. The genes will serve as targets for developing diagnostic tools and new therapies.

# Cancer Target Discovery and Development (CTD<sup>2</sup>) Network Launch October 2009

The CTD<sup>2</sup> network is a project aimed at developing new scientific approaches to accelerate the translation of genomic discoveries into new treatments.

# Cancer Target Discovery and Development (CTD<sup>2</sup>) Network June 2010

Updated 6/7/12 – Rachel Ratel

CTD<sup>2</sup> Network concept is approved by NCI BSA.

Cancer Target Discovery and Development (CTD²) Network Concept Approval by NCI Board of Scientific Advisors (BSA)

March 2011

BSA approves CTD<sup>2</sup> Network RFA concept.

Cancer Target Discovery and Development (CTD²) Network May 2011

RFA for CTD<sup>2</sup> released

#### **OCCPR**

# Proteomics Planning Workshop April 2002

A Proteomics Planning Workshop was held by the National Cancer Institute, National Human Genome Research Institute, and National Institute of General Medical Sciences.

## Proteomics for Early Cancer Detection Workshop April 2003

# National Cancer Advisory Board (NCAB) Working Group September 2003

NCAB working group on Biomedical Technology was commissioned.

## Mouse Proteomics Technologies Initiative Launch 2004

The NCI Mouse Proteomics Technologies Initiative is a team-based effort designed to use animal models to develop and standardize technologies that help improve the accurate measurement of proteins and peptides linked to cancer processes in order to accelerate biomarker discovery.

#### Clinical Proteomics and Biomarker Discovery September 2004

Clinical Proteomics and Biomarker Discovery in Cancer Research East Coast Workshop was held.

### Clinical Proteomics and Biomarker Discovery November 2004

Clinical Proteomics and Biomarker Discovery in Cancer Research West Coast Workshop was held.

### The Case for Early Detection - BSA Presentation November 2004

http://deainfo.nci.nih.gov/advisory/bsa/bsa1104/08nov04mins.pdf

# CPTC Phase I Initiative Approval by NCI Executive Committee (EC) January 2005

NCI EC approves CPTC biomarker concept.

# Proteomic Technologies Informatics Workshop February 2005

Strategies to Integrate Biomarkers Into Cancer Clinical Trials Workshop

#### February 2005

Proteomic Affinity/Capture Methods Workshop March 2005

CPTC Presented to NCI Board of Scientific Advisors (BSA)
June 2005

### Proteomic Technologies Reagents Resource Workshop December 2005

The Clinical Proteomics Technology Initiative is seeking to integrate approaches to develop and enhance technology capabilities, enhance public resources for investigator-initiated research on protein discovery, accelerate these discovery efforts, and enhance the knowledge base. NCI BSA approves the initiative.

### Clinical Proteomic Technologies for Cancer (CPTC) Phase I Launch October 2006

CPTC was launched to foster the building of an integrated foundation of proteomic technologies, data, reagents and reference materials, and analysis systems to systematically advance the application of protein science to accelerate discovery and clinical research in cancer.

# Clinical Proteomic Technologies Initiative for Cancer Update to the NCI National Cancer Advisory Board (NCAB) November 2006

On September 2, five awards to lead institutions were announced for the Clinical Proteomic Technology Assessment for Cancer initiative. Breast cancer has been chosen as the common human cancer type to be studied, and the first benchmark study, a protein mix study, is ongoing.

### Clinical Proteomic Technologies for Cancer Initiative Update to NCI Board of Scientific Advisors (BSA) March 2007

CPTCI is a 5-year initiative that addresses barriers in proteomic technologies, reagents, and systems early in the pipeline by building a foundation of technologies, data, reagents and standards, analysis systems, and infrastructure that will help systematically advance the understanding of protein biology in cancer.

# Clinical Proteomic Technologies for Cancer (CPTC) Phase I update to National Cancer Advisory Board (NCAB) February 2008

The project was initiated to develop a sound basis for the discovery of biomarkers; validation will occur through other means. The project has three distinct components: (1) CPTAC Centers, which are a network of laboratories that serve as clinical proteomic technology centers of excellence throughout the United States and provide expertise in mass spectrometry, (2) the development or enhancement of

technologies and the development of algorithm computational sciences that assist individual investigators, and (3) a reagents and resources core.

# International Summit on Proteomics August 2008

International Summit on Proteomics Data Release and Sharing Policy: Amsterdam Principles was held.

### Clinical Proteomic Technologies for Cancer (CPTC) Update to NCI Board of Scientific Advisors (BSA) June 2009

The CPTC program was established in October 2006 to support biomarker development and address the issues identified as significant barriers to progress that include (1) experimental design, (2) technological or technical barriers, (3) biospecimen collection, and (4) data acquisition, analysis, and reporting. The Clinical Proteomics Technology Assessment Center Network involves five major centers and a number of allied institutions.

# Implementation of a New Cancer Biomarker Development Pipeline September 2009

Clinical Proteomic Technologies for Cancer Initiative Reissuance Strategic Workshop – "Implementation of a New Cancer Biomarker Development Pipeline"

# Clinical Proteomic Technologies for Cancer (CPTC) Phase II Concept Approval by NCI Board of Scientific Advisors (BSA) March 2010

CPTC BSA approves CPTC reissuance. The CPTAC initiative was launched in 2006 to address technical barriers related to discovery and verification in proteomics, as well as issues concerning biospecimens, statistical issues in experimental design, data acquisition and analysis, and lack of standards and high-quality reagents.

## Clinical Proteomic Technologies for Cancer (CPTC) Initiative: Proteome Characterization Centers June 2010

RFA for CPTC: Proteome Characterization Centers released.

#### Establishing the Standards in Clinical Proteomics September 2010

Clinical Proteomic Technologies for Cancer meeting was held: "Establishing the Standards in Clinical Proteomics."

http://proteomics.cancer.gov/eprotein/november2010/features/fourthmeeting

Office of Cancer Clinical Proteomics Research (OCCPR) Announces Launch of a Clinical Proteomic Tumor Analysis Consortium
August 2011

http://proteomics.cancer.gov/programs/cptacnetwork

Statistical Experimental Design Considerations in Research Studies Using Proteomic Technologies August 2011

"Joint Workshop of the National Cancer Institute, National Heart, Lung and Blood Institute, and American Association for Clinical Chemistry" convened in Bethesda, MD to help address issues of statistical experimental design.

#### **OCNR**

### Alliance for Nanotechnology in Cancer (ANC) 2003

Cancer Nanotechnology Extramural Working Group recommends development of ANC.

## Cancer Nanotechnology Phase I Approval by NCI Board of Scientific Advisors (BSA) July 2004

Phase I: Alliance for Nanotechnology in Cancer (ANC) is an integrated initiative to transform clinical oncology and inform basic cancer research through the directed application of nanotechnology. NCI BSA voted to approve the proposal.

### Alliance for Nanotechnology in Cancer (ANC) Phase I RFAs Released December 2004

RFAs for Centers of Cancer Nanotechnology Excellence (CCNE), Cancer Nanotechnology Platform Partnerships (CNPP), and Multidisciplinary Career Development in Cancer Nanotechnology Research were released.

## Alliance for Nanotechnology in Cancer (ANC) Phase I Launch October 2005

The National Cancer Institute announces a new \$144M, 5-year initiative to develop and apply nanotechnology to cancer. The NCI ANC is engaged in efforts to harness the power of nanotechnology to radically change the way we diagnose, treat, and prevent cancer.

### Phase I: Alliance for Nanotechnology in Cancer (ANC) Update to NCI Board of Scientific Advisors (BSA) June 2006

The NCI ANC was launched in 2004 with a series of goals in areas thought to be critical to the future of medicine and molecular oncology. It is built on multidisciplinary team science and the Components of the Alliance are the (1) Centers of Cancer Nanotechnology Excellence (CCNE), (2) Nanotechnology Platforms for Cancer Research allied with the various centers, (3) Multidisciplinary Research Teams, which involve training and interagency collaborations, and (4) a Nanotechnology Characterization Laboratory (NCL).

# Cancer Nanotechnology: In vitro Diagnostic and Prevention Therapy and Post-Treatment In vivo Diagnostic and Imaging March 2008

Strategic Workshops on Cancer Nanotechnology were held: In vitro Diagnostic and Prevention Therapy and Post-Treatment In vivo Diagnostic and Imaging workshops.

### Phase I: Alliance for Nanotechnology in Cancer (ANC) update to NCI Board of Scientific Advisors (BSA) June 2008

Dr. Grodzinski updated the members on the major accomplishments of the NCI Alliance for Nanotechnology in Cancer over the last 2.5 years. He noted that researchers had published 475 journal articles, filed 150 patents, and formed more than 30 companies associated with nanotechnology diagnostics and therapy. Further, leveraged funding has included more than \$80 M of new, peer-reviewed government research funds and \$150 M from philanthropic sources to establish infrastructure and perform research. The eight Centers for Cancer Nanotechnology Excellence (CCNEs) and 12 Cancer Nanotechnology Platform Partnerships (CNPPs) are staffed by multidisciplinary teams working toward the common goal of finding clinical applications for nanotechnology in cancer.

# Phase II: Alliance for Nanotechnology in Cancer (ANC) Approval by NCI Board of Scientific Advisors (BSA)

#### November 2008

BSA approves reissuance of Phase II: ANC. Reissuance will provide for an increased focus on complete technology solutions leveraging collaborative efforts within the centers and across centers and platforms, including a redesigned training program.

# Alliance for Nanotechnology in Cancer (ANC) Phase II RFAs Released May 2009

RFAs for Centers for Cancer Nanotechnology Excellence (CCNE) and Cancer Nanotechnology Platform Partnerships (CNPP) were released.

### Alliance for Nanotechnology in Cancer (ANC) Phase II Training RFAs Released October 2009

RFAs for Cancer Nanotechnology Training Centers (CNTC) and Pathway to Independence Award in Cancer Nanotechnology Research were released.

# Phase II: Alliance for Nanotechnology in Cancer (ANC) Launch September 2010

Phase II launches with an investment of approximately \$30M per year for the next 5 years.

#### **OPSO**

# Integrating and Leveraging the Physical Sciences to Open a New Frontier in Oncology February 2008

"Integrating and Leveraging the Physical Sciences to Open a New Frontier in Oncology" think tank convened in Washington, DC.

### A New Look at Evolution and Evolutionary Theory in Cancer July 2008

"A New Look at Evolution and Evolutionary Theory in Cancer" think tank convened in Washington, DC.

# Physical Sciences-Based Frontiers in Oncology: The Coding, Decoding, Transfer, and Translation of Information in Cancer October 2008

"Physical Sciences-Based Frontiers in Oncology: The Coding, Decoding, Transfer, and Translation of Information in Cancer" think tank convened in Washington, DC.

### Physical Sciences Oncology Program Presented to NCI Board of Scientific Advisors (BSA) November 2008

The NCI proposes to build a collaborative network of Physical Sciences—Oncology Centers that will bring physical scientists and cancer researchers together to address key questions in cancer research that involve physical laws and principles.

### Physical Sciences-Oncology Centers (PS-OC) December 2008

RFA for PS-OC (U54) was released.

### Physical Sciences-Oncology Centers (PS-OC) Launch October 2009

The NCI explores new and innovative approaches to better understand and control cancer through initiatives that enable the convergence of the physical sciences with cancer biology. The Physical Sciences in Oncology initiative will establish scientific teams and individual scientists from the fields of physics, mathematics, chemistry, and engineering to examine cancer using approaches that have not been followed in cancer research to date.

# First Annual NCI Physical Sciences-Oncology Centers (PS-OC) Network Investigators Meeting April 2010

First Annual NCI PS-OC Network Investigators Meeting was held in Washington, DC, to share recent outputs, provide a venue for future collaboration within the PS-OC Network, and discuss governance and upcoming trans-network projects.

# NCI Physical Sciences-Oncology Centers (PS-OC) Network Meeting August 2010

NCI's PS-OC Network Meeting was held with 42 PS-OC investigators to develop innovative pilot project applications which were reviewed by an external panel of extramural experts, resulting in the awards and funding to successful applicants.