CURRICULUM VITAE
DANIEL C. FLYNN, Ph.D.

Personal and Professional

Personal

Born: 5/22/59 Rochester NY, U.S. Citizen
Married: Sharon Flynn
Home: 242 Christina Mill Dr., Newark, DE 19711
Work: University of Delaware, College of Health Sciences, 205-C McDowell Hall, Newark, DE 19716; Ph: 302-831-7578; email:dflynn@udel.edu

Education

1977-1981 - University of Maryland, College Park; B.S., Microbiology/Biochemistry
1982-1988 - North Carolina State University; Ph.D., Microbiology/Virology
Thesis: Conformational changes in the surface glycoproteins E1/E2 of Sindbis virus upon attachment and penetration. Thesis advisor, Dr. Robert E. Johnston (Dept. of Microbiology, University of North Carolina, Chapel Hill, NC).
1988-1992 – Post-doctoral fellow, Dr. J. Thomas Parsons, Cancer Center, University of Virginia.
Project: Cancer and Oncogenes: Identification of substrates of the Src tyrosine kinase.

Professional Experience

1992-1998: Assistant Professor, Department of Microbiology & Immunology and the Mary Babb Randolph Cancer Center, West Virginia University, Morgantown, WV 26506
1998-2003: Associate Professor, Department of Microbiology & Immunology and the Mary Babb Randolph Cancer Center, West Virginia University, Morgantown, WV 26506
2000-2006: Associate Director for Basic Research, Mary Babb Randolph Cancer Center
2001-2008 Director, Center of Biomedical Research Excellence (CoBRE) for Signal Transduction and Cancer. West Virginia University Mary Babb Randolph Cancer Center
2001-2013 Founding scientist and Scientific Advisor, Protea Biosciences, Inc., Morgantown, WV
2003-2008. Professor, Mary Babb Randolph Cancer Center and the Dept. of Microbiology & Immunology, West Virginia University, Morgantown, WV 26506-9300.
2003-2008 Director, Cancer Cell Biology Research and Graduate Training Program, West Virginia University Health Sciences Center.
2006-2008 Deputy Director, Mary Babb Randolph Cancer Center, West Virginia University Health Sciences Center
2008-2012 Associate Dean for Research and Economic Development, Commonwealth Medical College, Scranton, PA
2008-2012 Institutional Officer (IO), The Commonwealth Medical College, Scranton, PA
2009-2011 Interim Chair, Department of Biomedical Sciences, The Commonwealth Medical College, Scranton, PA
2012-present Associate Dean for Research, University of Delaware, College of Health Sciences

Administrative Accomplishments

West Virginia University – Deputy Director, Mary Babb Randolph Cancer Center

Research Environment - I recruited a team of junior faculty and senior faculty to obtain a P20 CoBRE grant for the Mary Babb Randolph Cancer Center. This $22M grant enabled us to provide research funding for 5 junior faculty members and mentor them to obtain independent funding and graduate from the CoBRE. Using this approach, we mentored 16 junior faculty members to research independence. I was also able to obtain $1M of S10 equipment grants to support our CoBRE core facility in Proteomics, equipping it with the

latest in mass spectrometry equipment. From this, I led a group of scientist to develop West Virginia's first biotech company, Protea Biosciences (proteabio.com) which employs 53 people. I served on the board of directors and learned much about founding, developing and growing a biotech company from the CEO. As Deputy Director of the Mary Babb Randolph Cancer Center, I was charged with developing translational research teams. This position enabled me to obtain $5M of funding that helped our cancer center recruit clinical scientists and develop a clinical research mission. To foster this effort, I was able to appoint faculty to help develop our tissue bank and a novel molecular medicine core facility that sequenced exons of specific genes, where mutations would direct clinicians decisions for treatment.

Academic Programs - I recruited a team of faculty to develop a PhD program in Cancer Cell Biology which was approved by the WV Higher Ed commission. I also recruited a team of faculty to assist in the recruitment and admission of graduate students to our PhD program. After being appointed Chair of the MD/PhD training program, I was able to help faculty develop research projects that fostered research training for medical students. In order to foster interdisciplinary research, I invited the nanotechnology research program to collaborate with the cancer center, where the scientists developed novel detection devices potentially useful for diagnostics. Because of this success, I was able to obtain a $2.8M Epscor training grant for cancer nanotechnology which supported 15 graduate students per year, and I was able to transfer leadership of this program from myself to one of our nanotechnology faculty members. All of these activities fostered the development of training programs that promoted clinical, translational and interdisciplinary research teams, promoting growth at the Mary Babb Randolph Cancer Center.

The Commonwealth Medical College (TCMC) – Associate Dean for Research & Economic Development

Research Environment - TCMC was a new medical school and I was part of the initial team that built this medical school from the ground, up. Starting out in rented space, I was able to help recruit faculty to the medical school and develop a biomedical research team, as well as a public health research team. I was the institutional officer (IO) and developed all of the policies and procedures that govern biomedical research including the use of human subjects (IRB), animals (IACUC), biohazardous agents (IBC), chemical safety and radionuclides, as well as conflicts of interest. I was part of the team that worked with architects to build our new medical school building (185,000 ft^2) including research labs, animal quarters, offices and classroom space. I wrote an NIH C06 grant for the animal quarters (scored, not funded) and obtained federal equipment grants to help pay for equipment for the research labs. Working with our talented, young faculty I helped them obtain 6 NIH grants, 3 foundation grants and 1 DoD grant. I was also responsible for technology transfer and helped one of our faculty obtain a patent for a diagnostic device she developed. I worked with patent lawyers to write the claims of for the provisional patent, provided input to convert it to a PCT and the patent was recently awarded to her. One of my duties was to help the medical school interface with the cities of Scranton and Wilkes-Barre, PA and foster regional economic development. I worked with the Scranton city Chamber of Commerce to help them recruit health care-related companies to the region and prior to my departure, was elected to a seat on the Scranton Chamber of Commerce.

Academic Programs – I was part of the team that interacted with the Liason Committee on Medical Education (LCME) that achieved provisional accreditation for the new medical school. I also worked with our accrediting team to achieve middle states accreditation. In order to foster the development of a biomedical research/academic enterprise, I developed a strategy to recruit undergraduate students from the 7 regional Northeastern Pennsylvania college and universities to work for college credit at TCMC. I was able to convince a foundation to provide undergraduate research grants to each of these regional universities and the medical school. I also led a team of faculty at TCMC to develop a Professional Science Masters program in biomedical research and had this program approved by the Pennsylvania Department of Education. As a member of the TCMC President's cabinet, I was directly involved in writing policies and procedures for the medical school and fostering development of the academic environment. Working with our development officer, I was able to interface with the public, inform them of our research and educational training programs and was directly involved in successfully raising money from private donors for the college.

University of Delaware – Associate Dean for Research

Research environment - Working with faculty and administration, I hosted a 'research visioning' exercise and helped the College of Health Science faculty identify their research focus areas and align into research teams focused on human disease and the human condition. Once all researchers were aligned with teams, I convinced the administration to identify $35,000 to purchase technology that would foster collaborative research teams. Working with Chairs and faculty, we developed a common, college-wide seminar series and we were able to broadcast the seminar to students and alumni using web-based technology, increasing the number of participants in seminars and interactions with alumni. I also worked with chairs to initiate a Faculty Development series which meets monthly and provides help and advice to faculty for the research programs and career development. Faculty also expressed a desire to gain greater access to patient populations for their clinical studies. In response to this I was able to develop a formal relationship with a health care organization in southern Delaware that has 6000 geriatric patients, many of whom would like access to our College's clinical trials. I am also working with the VA to gain access to patient populations for our researchers. I also worked with the University's international relations team and wrote an MOU that helped the College of Health Sciences develop a formal relationship with an international partner, Plymouth University in Plymouth, England, which may foster international collaborations in health care research. As an associate dean for research, I routinely review grants and am active in compliance issues. I was able to develop a leadership team that is applying for a CoBRE grant in cardiovascular health, and I represent the University of Delaware as the PI on our jointly sponsored CTSA proposal with Thomas Jefferson University, A.I. Nemours children's hospital and Christiana Care. I am working to develop an infrastructure to analyze big data and am negotiating a large grant/contract with the state to analyze Delaware's 8M medicaid records of the 213,000 residents who receive medicaid assistance each year. With these successes, I have been able to interface with alumni and was directly involved in obtaining a significant gift, and worked closely with Development to help the donor identify the program they were most passionate to support.

Academic Programs - I worked with a team of scientists to develop a novel graduate training program that focuses on a tiered training structure allowing graduate students to exit at different stages of training with credentials and degrees, which is a concept I have long been interested in. I have taught at the College and developed a careers course in health sciences for undergraduate who are not sure what direction they would like to pursue. I developed a novel independent study program for undergraduates called 'First Step' which challenged students to come up with novel solutions to challenging health care problems. The program has been very successful, with student teams developing invention disclosures, a company, novel tools that help patient populations and novel education programs. In response to this succes, I was able to co-author an NSF grant application on entrepreneurship to support this program and petition for support from our INBRE grant. I am very interested in diversity in education and I am developing a novel program based on 'First Step' that utilizes a community-based participatory approach to foster research experiences and retention for freshman and sophomore students of color. I am actively seeking support for this program from the NIH (R25 grant) and foundations. Once completed, we will develop pipeline programs and work closely with university programs that foster graduation of student of color, creating an environment that will promote the college's efforts to successfully diversify its student population.

Administrative Responsibilities

1993-present:	Numerous graduate student committees.
1995-present:	Faculty search committees - served on numerous committees, chaired several.
1995-2004:	Health Sciences Center Graduate School Recruitment Committee, member
1995-2001:	Chair, Graduate Student Admissions, Microbiology/Immunology/Cell Biology
1996:	Faculty Arbritration Committee, member
1997-2000:	Strategic Research Planning Group (SPABR) - WVU Health Sciences Center.
1999-2003:	member, Radiation and Biohazard Safety committee.
2000-2004:	Associate Director, MD/PhD Training Program
2001-2103:	Founding Scientist and consultant, Protea Biosciences, Inc. (www.proteabio.com).
2001-2008:	MBRCC Operations Committee - Mary Babb Randolph Cancer Center.

2001-2008:	Director, Center of Biomedical Research Excellence (CoBRE) for Cancer and Signal Transduction (CoBRE PI)
2002-2008:	Graduate Training committee – WVU Health Sciences Center.
2003-2008:	Director, Cancer Cell Biology Program, WVU Health Sciences Center
2004:	Director, Cancer nanotechnology training grant
2006-2008:	Membership committee, American Society for Cell Biology
2007:	Director, WVU HSC Core Facilities
2007-2008:	Member, State of WV Cobre/inbre advisory council to the Associate Chancellor, WV University system.
2007-2010:	Member, Southeast Regional Cobre/Inbre advisory council
2008:	Chair, Search committee for Chairman of Biochemistry
2008:	Search committee, WVU HSC Vice President search committee.
2008:	National Cobre/Inbre advisory council
2008-2012:	Institutional Officer (IO), The Commonwealth Medical College
2008-2012:	Member, Presidents cabinet, The Commonwealth Medical College
2009-2012:	Member, Institutional Review Board (IRB), Mercy Hospital, Scranton, PA
2010-2012:	Chair, Professional Science of Masters (Biotechnology) program – development and accreditation.

Societies, Honors, Service to the Field

Active Society Membership

1. American Association of Cancer Research (AACR): *Full Member*.
2. American Society for Cell Biology (ASCB): *Full Member*, *Serve on Membership Committee*.
3. American University Technology Managers (AUTM): Active member.
4. American Association of Medical Colleges GRAND: Active Member

Honors

1977-1981:	Undergraduate Senatorial Scholarship. University of Maryland, College Park.
1989-1992:	NIH post-doctoral training fellowship.
1993:	Faculty Development Award, West Virginia University.
1995:	Awarded Outstanding Presentation in Signal Transduction; 86th annual meeting of the American Association for Cancer Research; Toronto, Ontario, Canada.
1999:	Faculty Development Award, West Virginia University - *Microscopy & Image analysis*.
2001:	Dean's Award for Excellence in Research - West Virginia University,
2005:	Percival Maclachlan Award, Medical Educator of the year, WVU School of Medicine.
2005:	Nominee, WVU School of Medicine Teacher of the Year
2006:	Nominee, WVU School of Medicine Teacher of the Year
2007:	Nominee, WVU School of Medicine Teacher of the Year
2008:	Percival Maclachlan Award, Medical Educator of the year, WVU School of Medicine.
2009:	CSR Award for Outstanding Service on NIH Study Sections.

National and Regional Committees

2005-2008:	American Society for Cell Biology, Membership Committee
2005-2008:	Translational Research Cancer Centers Consortium (TRC3), organizing member
2007-2008:	National NCRR Cobre Advisory Board
2007-2008:	Regional NCRR Cobre Advisory Board
2007-2008:	WV Cobre/Inbre IDEA award advisory board
2011-present	American Association of Medical Colleges, Advisory Panel on Medical Education

Editorial or Manuscript Review Experience (past and current):

1. 2001: Guest Editor, *ONCOGENE*, special edition on Adaptor Proteins

2. Member, Editorial board: *Breast Cancer: Basic and Clinical Research*
3. Ad hoc reviewer for many journals, including:
American Journal of Physiology: Cell Physiology
Molecular and Cellular Biology
Molecular and Cellular Biochemistry
Journal of Biological Chemistry
Oncogene
Hybridoma
European Journal of Biochemistry
Molecular Carcinogenesis
Experimental Hematology
Biochemistry
Molecular Pharmacology
Cancer Research
Molecular Biology Reports
Cell Motility and the Cytoskeleton
Nanotechnology

Grant Review / Study Section Membership

1994:	Veterans Adminstration, Oncology Study Section, Ad Hoc member.
1995-1998:	USDA Cell Biology Study Section, mail in reviewer
1995-1998:	Arkansas Science and Technology Grants, mail in reviewer
2001:	NCI ONC-IRG, Several Special Emphasis Panels
2001-2003:	NCI CAMP (cancer and metabolic pathobiology) Study Section, regular member
2003-2004:	NCI TME (tumor microenvironment) Study section, regular member.
2004:	Austrian Science Foundation, mail in reviewer
2004-2005:	NCI TCB (tumor cell biology) Study Section, ad hoc.
2006:	EMBO grant reviewer, mail in reviewer.
2006-2009:	NCI MONC (Molecular Oncology) Study section, regular member.
2009-present:	NCI Cancer Health Disparities study section, ad hoc member.
2012-2013:	NCI Cancer Health Disparities study section, Chair.

Consulting

2001-2013:	Scientific Founder, Protea Biosciences, Morgantown, WV
2002-2013:	External Advisory Committee, Chair, Rhode Island Hospital/Brown Univ. CoBRE for Cancer Cell Research and Development (Bharat Rhamadon, MD; PI).
2005-2010:	External Advisory Committee, Univ. of Arkansas CoBRE for Cancer Research.
2012-2013:	Advisor, PA Department of Education, Graduate Programs review committee

Service on Boards

2001-2013:	Member, Board of Directors, Protea Biosciences, Morgantown, WV
2009-2012:	Member, Board of Directors, Northeastern Pennsylvania Cancer Institute, Scranton, PA
2010-2012:	Member, Center for research and economic development, East Stroudsburg University Research Park, East Stroudsburg, PA.
2012:	Board of Directors, Scranton Area Chamber of Commerce

Teaching and Education

Past and Present Areas of Teaching Interests

West Virginia University

1993-2008:	Medical Virology (MBIM 701 - Medical Students) – 14 lectures/yr
1993-2001:	Medical Virology (MBIM 711 - Dental Students) - 6 lectures/yr

1993-2002: Molecular Virology (MBIM 784C - Graduate Students) – 6 lectures/yr
1994-2008: Signal Transduction (MBIM 793 - Graduate Students) – 2 lectures/yr
2005-2008: Introduction to neoplasia (CCMD – Graduate Students) – 2 lectures/yr
2005-2009: Cancer Pathology (PATH – medical students) – 1 lecture/yr
Independent Research Experiences (BIOL 105 - Undergraduate Students) – 1 student/yr Summer Research Experiences (High School Students) – 3 students in 10 years 2008-2012: Problem based learning and clinical case studies (Medical students) – 8 students/semester.

The Commonwealth Medical College

2008-2012: Problem Based Learning – (2nd year medical students) 15 two-hour sessions/week with 8 medical students reviewing case studies and connecting clinical presentation to physiology and mechanisms of disease
2009-2012 Colloquim – Careers in biomedical research (masters students)

University of Delaware

2013: Honor colloquim – The future of Health Care (honors freshmen)
2014: Careers in Health Sciences (freshmen) (planned, 1-credit)
2014: Seminars in Health Sciences (planned, 1 credit)

Graduate Student Trainees; Current position:

1995-2000: Yong Qian, PhD, Associate Research Scientist, National Institutes of Occupational Safety and Health, Morgantown, WV
1996-2001: Justin Summy, PhD, Assistant Professor, Univ of Central Florida.
1996-2003: Joseph M. Baisden, PhD, Radiation Oncologist, Private Practice, Princeton, WV.
1999-2002: Lidia Cherezova, MS, PhD, Bioinformatics, U. Washington, Seattle, WA.
2000-2004: Amanda Ammer (nee Gatesman), Staff scientist, West Virginia University.
2002-2007: Valerie Walker, PhD, Staff scientist, National Institutes of Occupational Safety and Health, Morgantown, WV
2003-2007: David Clump, MD/PhD, Resident, Radiology, UPCI, Pittsburgh, PA
2006-2011: Brandi Snyder, PhD, Staff Scientist, National Institutes of Occupational Safety and Health, Morgantown, WV

Post doctoral Trainees, Current positions:

1995-1996: Tracy Weimer, MD/PhD; Physician, Ob/Gyn, West Virginia University
1995-1996: Malak Bokhari, MD; Physician, Connellsville Group Practice, Connellsville, PA
2003-2007: Andrea Dorfleutner, PhD. Res. Asst. Professor, Northwestern University, Chicago, IL
2007-2009: Jess Cunnick, PhD. Assistant Professor, The Commonwealth Medical College.
2007-2010: Youngjin Cho, PhD. Research Assistant Professor, The Commonwealth Medical College
2012-present Kim Arnold, PhD.

Trainee Support

Swiger Graduate Student Fellowship:	Justin Summy, 1997-2000
West Virginia University Medical Scientist Training Program:	Joseph Baisden, 1997-2001
West Virginia University Medical Scientist Training Program:	Ihtishaam Qazi, 2001-2004
West Virginia University Medical Scientist Training Program:	David Clump, 2001-2004
DuBois Fellowship:	Valerie Walker, 2001-2004
NIH Minority Supplement:	Valerie Walker, 2004-2007
AACR Minority Travel Award:	Valerie Walker, 2004, 2006

Research

Research Interests

1. Breast cancer and cellular invasion.
2. Heavy metals, signal transduction and cancer progression
3. Diversity in academia

Invited Presentations

1994 "*AFAP-110 is a Src SH2/SH3 binding partner*" 12th annual meeting on Oncogenes, Frederick, MD.

1995 "Role of the cytoskeleton in transformation and cancer". Charleston Area Medical Center, Charleston, WV.

1997 "*AFAP-110 directs changes in actin filament integrity*" University of Texas, Southwest, Dallas, TX. Dept. of Physiology seminar series. Dallas, TX.

2000 "*AFAP-110 is a binding partner and substrate for PKC isoforms"*. Keystone symposia on PKC. Taos, NM.

2000 "*AFAP-110 modulates signals that affect actin filament integrity"*. MD Anderson Cancer Center, Dept. of Tumor Biology seminar series. Houston, TX.

2001 "*AFAP-110 is an affector of actin filament integrity*". University of North Carolina, Chapel Hill, Dept. of Anatomy and Cell Biology seminar series. Chapel Hill, NC.

2002 "*Tech transfer within a Cancer Center*" 9th Annual WV Epscor Meeting, Charleston, WV. Invited speaker. January 28-29, 2002, Charleston, WV.

2003 "*Proteomics and Cancer*". Charleston Area Medical Center. Charleston, WV. March 21, 2003.

2003 "*AFAP-110 relays signals from PKC that affect changes in actin filament integrity*". University of Virginia, Charlottesville, VA. March 26, 2003

2003 "*AFAP-110 relays signals from PKC that affect changes in actin filament integrity*". NCI vascular biology program, Bethesda, MD. April 18, 2003.

2003 "*AFAP-110 in the tumor microenvironment*" Texas A&M School of Medicine, Temple, TX. May 31, 2003.

2004 "*Cellular signals that regulate podosome formation are associated with breast cancer progression*" Moffet Cancer Center, U. South Florida, Tampa, FL May 19, 2004

2004 "*Kinase signaling mechanism that stimulate breast cancer progression*" LifeSpan Rhode Island Hospital, Providence, RI. July 25, 2004

2005 "*Podosome formation and mechanisms of invasion in cancer*". Marshall University, Huntington, WV, 1/28/05

2005 "*Podosome formation and mechanisms of invasion in cancer*". University of Alabama@Birmingham, Birmingham, AL 2/8/05

2005 "*AFAP-110 relays cellular signals that direct activation of cSrc and podosome formation*" 45th Annual meeting of the American Society for Cell Biology. San Francisco, CA. 12/10/05.

2006 "*Cellular signals that regulate podosome formation*". Brown University, Providence, RI 5/26/06

2006 "*Tech transfer development derived from Cobre support*". 5th annual Cobre meeting, Washington, D.C. 7/23/06

2007 "*CoBRE funding in support of a Cancer Center initiative for WV*". Congressional staff presentation, Senate Hart Building, Washington, D.C., 1/18/07

2007 "*Determining if cSrc activation directs cisplatin resistance in ovarian cancer cells*". 10th annual meeting of the Translational Research Cancer Center's Consortium. Cleveland Clinic, Cleveland, OH 2/9/07

2007 "*A mechanism for PKC directed cSrc activation*". Medical College of Georgia, Cancer Center. 4/23/07

2007 "Personalized Medicine and Cancer" 17th Annual Fall Cancer Conference, Morgantown, WV 9/29/07

2008 "Breast cancer in West Virginia" Annual meeting of WV insitute on aging, Morgantown, Wv 6/4/08

2008 "New trends in cancer research" National CoBRE Research Meeting, Washington, D.C., 8/6/08
2009 "Identification of a Drug Target for Breast Cancer" Scranton Temple Residency Program, Scranton, PA 2/3/09
2009 "Biomedical Research and Economic Development" Marywood University Economic Development Councel, Scranton, PA 4/3/09
2010 "Developing Biotech in Northeastern Pennsylvania" Ben Franklin Development Corporation, Bethlehem, PA 1/6/10
2010 "Developing Biotech in Northeastern Pennsylvania" Northeastern Pennsylvania Faculty Symposium, King's University, Wilkes-Barre, PA 4/9/10
2010 "Phosphatidic acid binding to a Pleckstrin Homology Domain" University of Kentucky, Lexington, KY, 9/20/10
2010 "Phosphatidic acid binding to a Pleckstrin Homology Domain" Brown University, Providence, RI, 9/24/10
2011 "AFAP1 function in breast physiology" University of South Alabama, Mobile, AL 5/24/11
2012 "Future directions in biomedical research: University of Delaware, Newark, DE 4/1/12
2012 "Future directions in biomedical research: Clemson University, Clemson, SC 4/21/12
2013 "AFAP1 – 20 year study of a src substrate and its role in cellular physiology" Unidel Seminar, University of Delaware, Newark, DE 2/27/13

Meeting Chair

2000 1st Conf. on Molecular Mechanisms of Metal Toxicity and Carcinogenesis. Morgantown, WV.
2001 2nd Conference on Molecular Mechanisms of Metal Toxicity and Carcinogenesis. Morgantown, WV.
2008: Organizing committee Chair: 11th annual meeting of the Translational Research Cancer Center Consortium (TRC3). Feb 20-22, 2008.
2011 Regional Meeting on Economic Development: Chair, Undergraduate Research, Scranton, PA 4/12/11.

Patents (pending)

AFAP sequences, polypeptides, antibodies and methods. USPTO # 60/323,866.
A method for treating cancer. USPTO # 60/369,843

Research Funding and Grant Support (*annual direct costs shown*)

Active Funding

U54/DE CTR (sub) Jennifer Sims-Mourtada (PI) 11/1/13-10/31/15 2.5%
NIH/NCRR $86,000/yr
Hedgehog signaling in breast cancer
Goal: To determine the role of hedgehog in promoting breast cancer stem cells to promote tumor growth
Role: My role is to serve as a mentor for Dr. Sims-Mourtada

Grants in review

DE State Medicaid Agency Daniel C. Flynn (PI) 11/1/13 - 10/31/14 25%
CMMI/DE $697,086/yr
Baseline analysis of Delaware Medicaid activitie
Goal: To recruit a team of scientists to analyze the 8M records for 213, 000 medicaid recipeints in Delaware and assist the state to comply with the affordable care act, to reduce costs and increase the quality of care. This analysis will set the baseline for state activity. Funding could be ongoing.

NSF Daniel Freeman (PI) 04/1/14 - 3/31/17 5%
NSF I-Corp program $100,000/yr
I-Corps sites an an ecosystem catalyst
Goal: To develop undergraduate research programs that promote entrepeneurship.
Role: My role is to serve as Co-PI of the program.

R01 Ling-Zhi Liu (PI) 6/1/14 – 5/31/19 5%
NIH/NCI/Thomas Jefferson University $250,000/yr
Epigenetic dysregulation and oxidative stress in arsenic carcinogenesis
Goal: To determine the role of miRNA's in regulating signals that promote angiogenesis in response to oxidative stress.
Role: My role is as a collaborator (subcontract) to assist in conducting experiments that evaluate the role of VEGF in modulating signals that promote angiogenesis.

Grant Applications in Preparation

P50 Scott Waldman (PI) 9/30/14/14 - 9/29/19 25%
NIH/NCI $4M/yr
Clinical Translational Science Award (CTSA)
Goal: To develop state of the art training and access to clinical trials in the Delaware Valley.
Role: My role is as co-PI and to lead the University of Delaware contributions to the multi-institutional proposal and to administer University of Delaware resources dedicated to this project.

R25 Daniel C. Flynn (PI) 9/1/14 - 8/31/19 25%
NIH/NCI $300,000/yr
Developing Diversity through Retention
Goal: To develop a program for undergraduate freshmen and sophomores students of color that promote retention in STEM programs at the College of Health Sciences, University of Delaware.

Other Funded Grants – Expired

R01-CA60731-19A1 Daniel C. Flynn (PI) 4/1/94 - 6/30/13 25%
NIH/NCI $225,000/yr
AFAP-110 effects actin filament integrity
Goal: To determine the mechanism by which AFAP-110 alters actin filament integrity.

DCED/PA Daniel C. Flynn (PI) 1/1/11 - 7/31/12 5%
DCED $100,000
Development of a Technology Transfer Office at TCMC
Goal: To develop an infrastructure that supports technology transfer at TCMC.

Appalachian Research Council Daniel C. Flynn (PI) 9/30/11 – 9/29/12
ARC $150,000 1%
Technology for Training Students in Biotechnology
Goal: To purchase advanced technology for use in training masters level students in biomedical research

HRSA Daniel C. Flynn (PI) 7/1/10 – 6/30/11 1%
HRSA/DHHS $247,000
Goal: To purchase technology for molecular analysis of diseased and normal tissue

KISK Daniel C. Flynn (PI) 5/1/09 – 4/30/10 1%
DECD/PA $137,000
High Throughput Microscopy

Goal: To obtain funds ot purchase a high throughput microscope

American Cancer Society Daniel C. Flynn (PI) 1/1/09 – 12/31/11 5%
ACS Institutional Research Grant
Goal: To establish pilot funding for new investigators.
Re-assigned to new PI upon leaving WVU.

NIH – P20-RR016477-04 Jim Sheil (PI) 6/1/04 – 5/31/09 5%
NCRR $489,908/yr
Title: West Virginia Idea Networks of Biomedical Research Excellence (WV-INBRE)
Goal: To create a network for training undergraduate scientists and faculty at small colleges to do medical research by mentoring undergraduate students and faculty from small colleges to do summer research projects. DCF mentors a faculty member from Wheeling Jesuit University.

ESRE Daniel C. Flynn (PI) 10/01/07 - 9/30/10 1%
State of WV (WVEpscor) $2,500,000/ 3 yrs
Eminent Scholars Program
Goal: To recruit clinical trialists to work at the WVU Mary Babb Randolph Cancer Center
Supports 3 clinical trialists salary for 1 year and startup funds.
PI draws no salary support

Corporate Grant Daniel C. Flynn (PI) 11/1/07 - 10/31/10 1%
Protea Biosciencs, Inc. $400,000/3 yrs
Drug design against the pleckstrin homology domain of AFAP-110
Goal: to generate a lead compound that binds to the PH domain of AFAP-110

P20 RR16440-06 Daniel C. Flynn (PI) 9/30/01 - 6/30/11 25%
NIH/NCRR $1,500,000/yr
Cobre in Signal Transduction
Goal: To establish a Center of Biomedical Research Excellence (COBRE) in Signal Transduction and Cancer. Supports five junior faculty members and their research programs, 5 new faculty recruits and creation of 2 core facilities. The PI acts as a director and receives salary support, only.
Reassigned to Laura Gibson, upon leaving WVU (still active grant, through 2016)

NSF – no assignment # P. Gannett (PI) 1/1/05 – 12/31/12 5%
NSF/WVEPSCoR $350,000/yr
Title: Cancer Nanotechnology Training Program
Goal: to foster collaborative graduate student training in West Virginia State Universities in the area of Cancer biology and nanotechnology
DCF resigned from grant and transferred to P. Gannett. Grant is still active.

NIH – CA109748-01A1 C. Gladson (PI) 7/1/04 – 6/30/09 5%
NIH/NCI $25,000/yr
Title: The Role of Lyn in Glioma Progression and Migration
Goal: This is a subcontract with the U. Alabama @ Birmingham to generate Lyn/Fyn chimeras and analyze their affects on cellular signals that alter actin filament integrity and promote motility in glioblastoma.

Elsa U. Pardee Foundation Daniel C. Flynn (PI) 7/1/07 – 6/30/08 5%
Pardee Foundation $100,000/yr
Title: Src activation of ERCC1 in Ovarian cancer
Goal: To determine whether activation of cSrc induces cisplatin resistance in ovarian cancer cell lines via an ability to upregulate ERCC1.

CDC Daniel C. Flynn (PI) 8/1/07 – 7/31/08 25%
CDC/BCCSP $63,000/yr
Title: Dectecting signatures for cSrc activation in ovarian cancer
Goal: To detect signatures for cSrc activation in ovarian cancer that may dictate treatment
Review date: Spring, 2007

R01-CA60731-MS1 Daniel C. Flynn (PI) 5/1/04 to 4/30/08 1%
NIH/NCI $25,000/yr
Supplement to "AFAP-110 effects actin filament integrity"
Goal: A minority supplement to support Valerie Walker as a grad student.

1T32ES10953-02 John B. Barnett (PI) 7/01/01 to 6/30/06 5%
NIH/NIEHS $759,228/yr
Training Program in Immunotoxicology
Goal: To provide support for 4 graduate students and 2 post doctoral fellows. DCF mentors 1 graduate student.

R01-ES11311-01A1 John B. Barnett (PI) 9/1/2002 to 6/30/06 5%
NIH/NIEHS $225,000/yr
Effects of the Herbicide, Propanil, on T cell signaling
Goal: To identify the mechanism by which propanil alters signaling in T cells.

P20-16440-02A1S3 Daniel C. Flynn (PI) 9/30/03-6/30/04 1%*
NIH/NCRR $353,919
Title: Supplement for Cobre in Signal Transduction and Cancer
Goal: To purchase equipment to automate the WVU Proteomics facility.

S10 RR16792-01 John B. Barnett (PI) 7/1/2002 to 6/30/03 (co-PI) 1%
NIH/NIEHS $498,740
Mass spectrometry for proteomics
The major goals of this project are...To purchase two mass spectrometers for the proteomics facility.
Revised proposal written by Dan Flynn while Dr. Barnett was on sabbatical, prior to funding.

Unassigned # Aaron Timperman (PI) 9/30/02 to 9/29/06 (co-PI) 5%*
WV State Challenge Grant $1,733,000
Proteomic databases for ovarian cancer
The major goals are … to establish a functional proteomics facility and to generate proteomic databases related to ovarian cancer, in colloboration with Protea Biosciences, Inc.

RPG-99-088-01-MBC Daniel C. Flynn (PI) 1/01/99 to 12/31/01 10%
American Cancer Society $240,000
NC protein/actin filament interactions in retroviral assembly
Goal: To identify the mechanism by which retroviral nucleocapsid proteins bind to actin filaments and how this interaction affects retroviral assembly.

R29-CA60731 Daniel C. Flynn (PI) 5/1/94 to 4/30/99 35%
NIH/NCI $350,000
Characterization of the pp60^{src} binding protein AFAP-110
Goal: To determine the mechanism by which AFAP-110 and pp60Src^{527F} form a stable complex.

MBC Peter Gannett (PI) 1/01/00 to 12/31/01 (Co-PI) 2%
West Virginia University Research Corporation $160,000
Advancing the Research mission at WVU via High Field NMR

Goal: To obtain an NMR for the purposes of research at WVU.

R01-ES07521 John Barnett (PI) 4/1/97 - 3/31/00 (co-PI) 5%
NIH/NIEHS $401,050
In vitro Immunotoxicity Studies on a Herbicide, Propanil
Goal: To determine the role of propanil in regulating signal transduction pathways in macrophage cells.

No assignment # Daniel C. Flynn (PI) 3/01/98 to 2/28/99 5%
Emmet G. and Brownie E. McDowell Fund $20,000
Activation of telomerase by Src, Yes and Myb proto-oncogenes
Goal: To determine whether cYes or cSrc activate telomerase.

No assignment # Daniel C. Flynn (PI) 10/1/98 - 9/30/99 5%
Fraternal Order of Eagles $10,000
Analysis of AFAP-110 in human tumors and normal tissues
Goal: To analyze human tumors for the expression of AFAP-110.

No assignment # Daniel C. Flynn (PI) 4/1/93 to 3/31/97 5%
L. Newton and Katherine Thomas Memorial Fund $80,000
Characterization and Disruption of the pp60^{src}-pp110 stable Complex: Determining the role of SH2 mediated protein interactions in *src*-transformed cells and Breast adenocarcinoma
Goal: To analyze breast cancer cell lines for AFAP-110/Src interactions.

No assignment # Daniel C. Flynn (PI) 1/1/97-12/31/97 5%
WVU Medical Center, Team Development Grants $60,000
Tumor Biology and Experimental Therapeutics Research Program
Goal: To develop a team of research scientists focused on signal transduction in breast cancer.

No assignment # Daniel C. Flynn (PI) 11/1/95 to 10/31/96 5%
Elizabeth Brown Charitable Trust $5,000
Mitogens and Signal Transduction in Breast Cancer
Goal: To analyze breast cancer cells for changes in activity of AFAP-110 in response to Src.

No assignment # Daniel C. Flynn (PI) 3/1/93 to 2/28/94 5%
Basic Science Research Grant $8,000
Identification of tyrosine phosphorylation sites in pp110: A novel substrate for the tyrosine kinase pp60^{src}
Goal: To analyze AFAP-110 for tyrosine phosphorylation sites in response to Src.

No assignment # Daniel C. Flynn (PI) 7/1/93 to 6/30/94 5%
WVU Senate Grant for Research or Scholarship $5,392
Characterization of two novel actin filament associated proteins, pp110 and alt110
Goal: To characterize a splice variant of AFAP-110.

#IRG-181B Daniel C. Flynn (PI) 7/1/92 to 6/30/93 5%
American Cancer Society Institutional Research Grant $9500
Identification of the pp60^{src} binding domain contained within AFAP-110: A novel pp60^{src} binding protein
Goal: To characterize AFAP-110 binding to Src^{527F}.

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