



Massey Cancer Center Update

May 20, 2019

What is the Massey Cancer Center?

- **NCI-designated cancer center**
 - One of two in Virginia
 - Top 4% nationwide/1,500 cancer centers in the US
 - 70 have earned an NCI designation
 - This designation makes us eligible for federal funding, information-sharing and resources reserved for the most elite institutions

What is the Massey Cancer Center?

- **Continuously funded for 44 years**
 - demonstrate superior research capabilities
 - Massey received a planning grant from the NCI in 1974 to establish a cancer center at VCU
 - awarded NCI designation in 1975. We have retained that prestigious designation ever since.

What is the Massey Cancer Center?

- 205 faculty from 38 departments in 7 colleges/schools
- 15,000 individual patients
 - Goal: 90,000 out patient visits per year after opening new Adult Outpatient Facility
- \$38.4M sponsored research awarded 2018
- \$12M in philanthropy FY19
- \$12.5M per year from the Commonwealth

Integration of Massey research resources across VCU

Cancer Center directed

- Biostatistics
- Cancer informatics Core
- Flow Cytometry Core Laboratory
- Structural Biology Core Laboratory
- Tissue, Data Acquisition and Analysis Core
- Transgenic Mouse Core Laboratory
- Cancer Mouse Models Shared Resource
- VCU Lipidomics/Metabolomics Shared Resource

VPRI Office directed

- Center for High Performance Computing
- Chemical and Proteomic Mass Spectrometry Core Lab
- Microscopy Core Lab
- Nanomaterials Characterization Core Lab
- VCU Genomics Core Lab
- Molecular pathology Research Services

Signature Research Programs

- **Cancer Cell Signaling** – identifying key signaling pathways that contribute to cancer
- **Cancer Molecular Genetics** – investigating genetic and epigenetic changes that underlie the molecular and cellular events contributing to cancer development and progression, and using this information to develop new target-based therapies for cancer
- **Cancer Prevention and Control** – developing basic and applied research programs in behavioral, social and population sciences to create or enhance interventions that reduce cancer risk, incidence, morbidity and mortality, and enhance quality of life
- **Developmental Therapeutics** – exploring cancer therapeutics, identifying molecular targets, assessing the molecular genetic profiles of tumors and translating these findings into the development of novel therapeutic strategies for the treatment of cancer

Cancer Specialties

- Breast cancer
- Lung and respiratory cancer
- Prostate and other urologic cancers
- Hematologic malignancies (lymphomas, leukemias and multiple myeloma)
- Colorectal and other gastrointestinal cancers (stomach, esophagus, liver, pancreas)
- Ear, nose, throat, head and neck cancers
- Cancers of the brain and nervous system
- Gynecologic cancers
- Pediatric cancers

New Senior Level Faculty



Azeddine Atfi, PhD
Professor and Chair,
Division of Cellular and
Molecular Pathogenesis
Department of Pathology

CMG/CCS
*Molecular determinants of GI
cancer progression and
cachexia*



Suyun Huang, MD, PhD
Professor,
Department of Human
and Molecular Genetics

CMG
*Epigenetic mechanisms
and targets of primary
CNS and metastatic breast
cancer*

New Senior Level Faculty



Patrick Nana-Sinkam, MD

Professor and Chair,
Division of Pulmonary Disease and
Critical Care Medicine
Department of Internal Medicine

CCS/CPC

*Molecular biomarkers and therapeutic
targets of lung cancer*



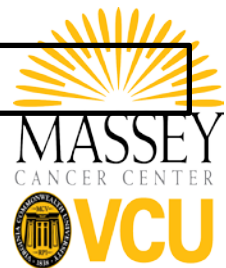
Greg Hundley, MD

Director, VCU Heart Pauley Heart Center
Professor, Department of Internal Medicine

CPC

*Metabolic basis and preventative
therapeutics of cancer treatment induced
cardiovascular damage*

Total NCI research grant funding of new senior level faculty: **\$3,242,555**



New Senior Level Faculty



Bernard Fuemmeler, PhD, MPH

Professor,

Department of Health Behavior and Policy
Associate Director, Cancer Prevention and
Control

CPC

*Environmental tobacco smoke exposure,
adolescent smoking, childhood obesity
epidemiology, AYA cancer survivor health,
HPV vaccination uptake*

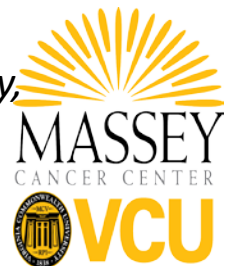


Said Sebti, PhD

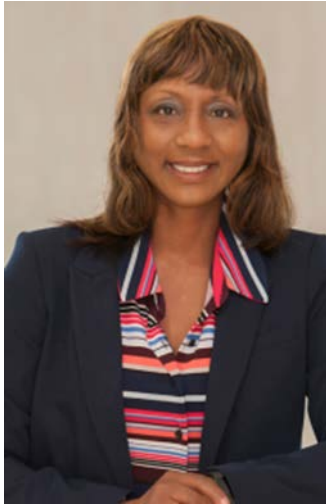
Professor,

Department of Pharmacology and Toxicology
Associate Director, Basic Research

*Drug discovery, GI oncology,
Malignant hematology*



New Senior Level Faculty



Vanessa Sheppard, PhD

Professor and Chair,
Department of Health Behavior and Policy
Associate Director, Disparities Research
Program Co-Leader, Cancer Prevention and
Control

CPC

Gaps in care for minority populations,
cancer outcomes



Jordyn Griffin, MD, FAAP

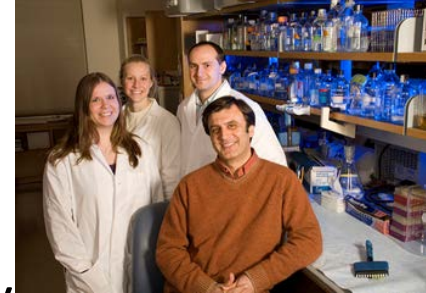
Assistant Professor,
Department of Pediatrics
Division of Pediatric Oncology

*Bone marrow transplant
AYA clinical research*

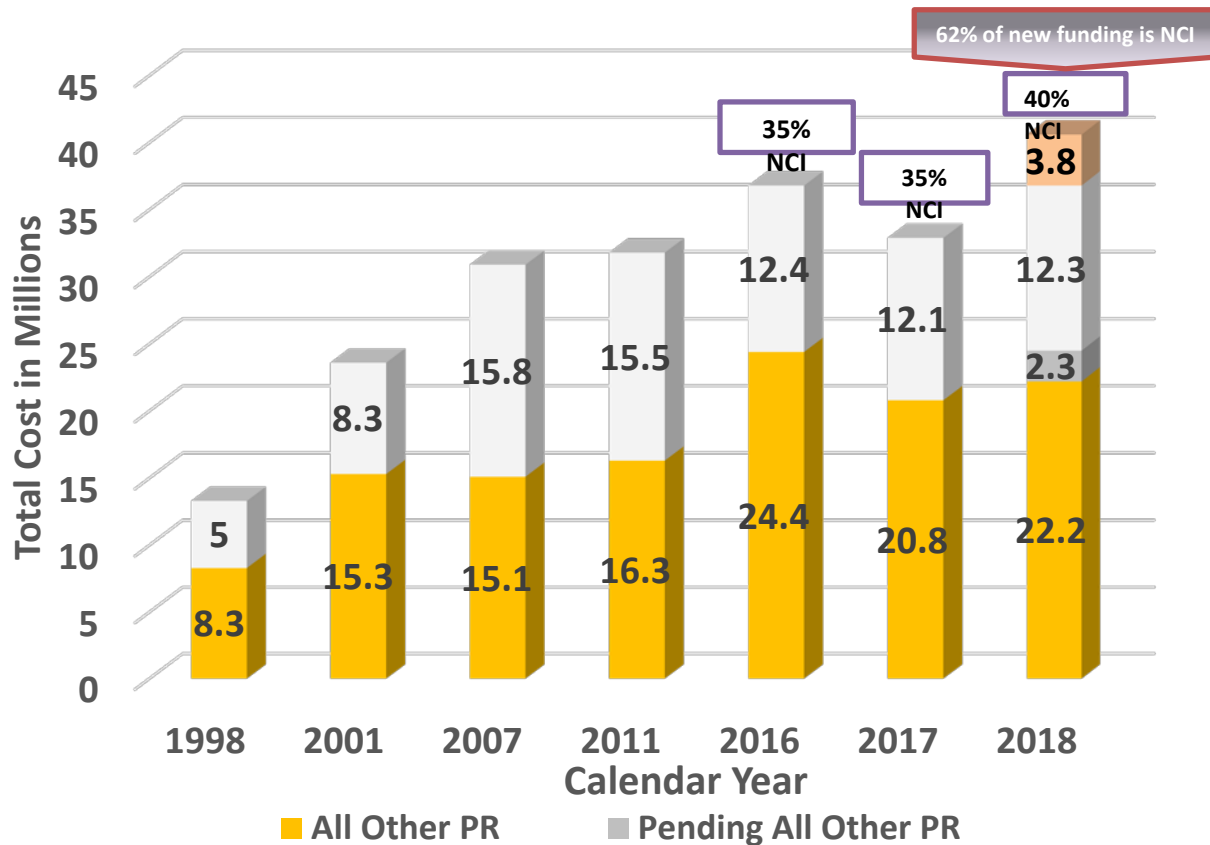


Increasing Interdisciplinary and Transdisciplinary Collaborations

- 334 cancer-related publications in 2018:
 - 66% were inter-institutional
 - University of Virginia, Old Dominion University, Virginia Tech, Eastern Virginia Medical School, George Mason University, American College of Radiology
 - Johns Hopkins, University of Michigan, MD Anderson, University of North Carolina, University of California Los Angeles, Dana Farber, Duke University, University of Pittsburgh, Emory University, Harvard, Arizona State University, Stanford University, , Ohio State University



Growth in NCI-Recognized, Peer-Reviewed Funding





MC3 Project

Massey Comprehensive Cancer Center

Work underway in support of Massey's application to NCI for comprehensive designation



Hire Massey
Cancer Center
director



Reduce time to
clinical trial
activation



Recruitment
activation



Massey Cancer
Center
strategic plan
(4 Themes)



NCI Application
submit May
2021
Notification
2022



Opportunity to Achieve Comprehensive Status

- We demonstrate commitment
 - A new Director
 - A new outpatient Massey Cancer Center about to open
 - A new inpatient Massey Cancer Center underway
 - Massey Cancer Center as part of the Virginia Authority that established VCU Health
 - Steadfast support of the Commonwealth of Virginia
- We have the talent
 - Increase in funding and publications
 - Increase in partnerships with CTSA and other cancer centers across the nation
 - Increasing impact of publications in the scientific world
- We make unique contributions
 - Pharmaceutical engineering and innovation
 - Addressing health disparities in cancer
 - Addressing the needs of underserved populations