

# Career Enhancement: Successful Techniques for New CCSG Requirements

CABTRAC Workshop  
Baltimore, MD  
October 13, 2019

# Agenda & Speakers

- Overview of CCSG requirements – Kerry Burnstein
- New Center
  - Sylvester Comprehensive Cancer Center, University of Miami – Kerry Burnstein
- Established Centers - Recently Renewed
  - Case Western Reserve Comprehensive Cancer Center – Mark Jackson
  - Indiana University Simon Cancer Center - Harikrishna Nakshatri
- Open discussion / Q&A

# Cancer Research Career Enhancement and Related Activities

The objectives of the NCI Centers Program are to **foster highly interactive cancer research** through support of the following:

- Efforts to coordinate and enhance existing cancer research education, training, and career development activities

**Remember to link to your research programs and core center mission – including COE.**

# Cancer Research Career Enhancement and Related Activities – Review Criteria

- What are the extent and quality of existing cancer research education, training and career development activities at the Center, as appropriate for the type (basic, clinical, or comprehensive) and size of center?
- How well does the center coordinate existing training and career development activities?
- How appropriate is the Center's process for integrating existing cancer education and training of biomedical researchers and health care professionals, including members of underserved populations, into programmatic and shared resource research efforts?
- Is the institutional commitment to the existing cancer education and training activities appropriate?
- How appropriate are proposed activities for the next funding cycle?

## Highlight:

- Current funded awards especially NCI (T32, R25, F, K, series)
- Breadth and depth of initiatives across disciplines and career stages
- Integration of basic, translational, clinical, population science trainees
- Under-represented populations – PIPELINE!
- Community outreach (work with COE)

# Cancer Research Career Enhancement and Related Activities

## Research Strategy:

The Cancer Research Career Enhancement and Related Activities core will coordinate existing research education and training activities at the cancer center and provide additional educational opportunities by supporting travel to scientific meetings, scientific seminars, workshops, and related activities. In this section describe:

- The cancer research career enhancement activities in which the core will be engaged, such as coordinating travel opportunities, seminars, workshops, and related activities
- The process for coordinating existing cancer education and training activities at the center, including with other institutional efforts, and integrating them into programmatic efforts
- The inclusion of special or unusual areas of cancer research education (health disparities, global health, etc.)
- New initiatives and plans for the next funding cycle

## Highlight:

- What are you already doing and what will you do? Why do you need money?
- How will you measure success/failure – METRICS?
- How will you leverage and coordinate efforts across the center, medical school, university?
- How will you ensure issues around diversity are addressed (research, pipeline of diverse investigators)?
- Leadership and administrative structure

# Cancer Research Career Enhancement and Related Activities

## **\*TRAINING/CAREER ENHANCEMENT GRANTS ARE NOT INCLUDED IN PROGRAM FUNDING!!**

- **Create a separate table** which lists all active cancer-related research education and training grants competitively funded by sources external to the applicant institution. Grants are listed alphabetically by PD/PI in two parts – active, peer-reviewed funded cancer research education and training grants and active non-peer reviewed education and training grants.

**ENGAGEMENT WITH ADMINISTRATIVE STAFF AND PROGRAM LEADERS IS KEY**  
**Don't include awards that are not clearly cancer-relevant!**

## E&T Review - Strengths

- **Training covers the whole spectrum** from high school through undergraduate, graduate, post-graduate, junior faculty
- Strong peer-review base to support trainees at multiple levels
- **Formal committees for E&T** to coordinate activities
- **Junior faculty mentored in a formal manner** – success measured by number of individual K awards
- **Many programs** to engage underserved minorities
- Engages local high schools with majority AA/Hispanic students
- **Experienced leadership with peer-review funding**
- **Institutional commitment to E&T**
- Multiple seminars, retreats, data clubs

## E&T Review-Weaknesses

- A more focused effort to attract **underrepresented minorities** to cancer research training would be helpful
- **Lack of information regarding outcomes and measures of success** for educational programs
- **Peer-review support of basic science training is underdeveloped** in number and breadth
- **Lack of individual K and F awards**
- Publications of K12 awardees welcome but hard to interpret without denominator
- Not clear how some training programs are cancer related or reside within the cancer center (**DON'T TRY TO FAKE IT**)

**Individual and T32 awards should be robust & appropriate for the scope of the center**



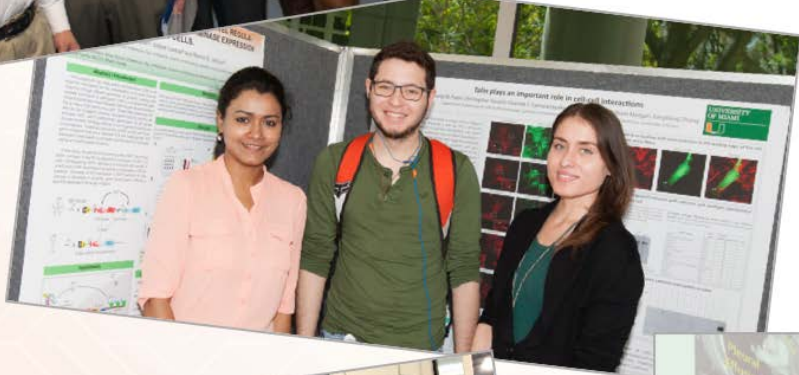


## Cancer Research Career Enhancement

Mission:

To build and sustain a robust pipeline of exceptional, collaborative, and interdisciplinary cancer researchers and healthcare professionals from diverse backgrounds

# Career Enhancement & Related Activities



## Specific Aims

1 Provide scientific and professional development programs focused on each stage of the career pipeline

2 Facilitate collaborative and interdisciplinary cancer research through center-wide education and training

# Cancer Education Leadership Council (CELC)



**Kerry Burnstein, PhD**  
**CELC Chair**

Associate Director, Education & Training  
Chair, Department of Molecular &  
Cellular Pharmacology

*Previous:*

Graduate Program Director:

Pharmacology (2001 – 2009)

Cancer Biology (CAB) (2009 – 2015)

CABTRAC, President (2017 – 2018)



Michael Antoni, Professor  
Psychology College of Arts  
and Sciences



Ralf Landgraf, Director  
Graduate Program in  
Cancer Biology (CAB)



Nipun Merchant,  
PI, NCI T32  
Surgical Oncology



Joyce Slingerland,  
PI, NCI K12  
Calabresi



Maria Abreu,  
PI, T32  
Gastroenterology  
and Hepatology



Jorge Antunez  
Director,  
Cancer Continuing  
Medical Education  
(CME)



Sandra Lemmon  
PI, T32  
Medical Scientist  
Training Program  
(MSTP)



Joseph Rosenblatt  
PI, ACS Institutional Grant  
Director, Sylvester Faculty  
Development Program

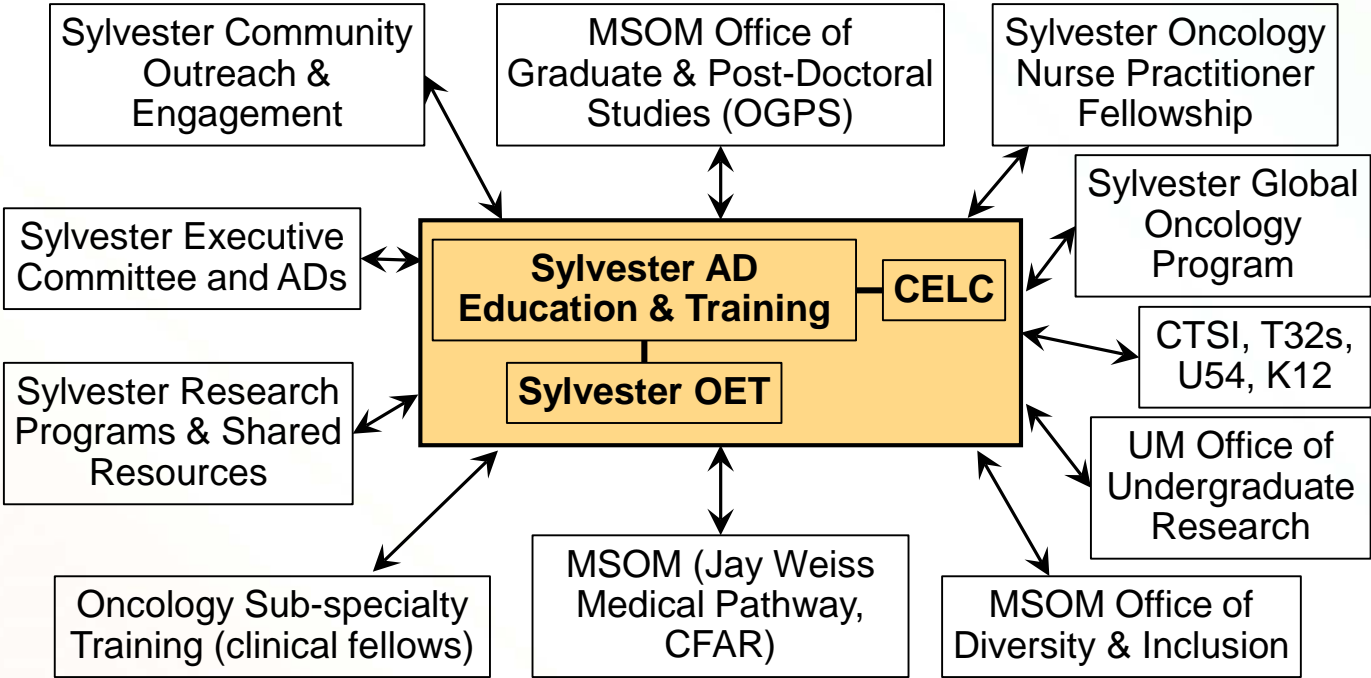


Feng-Chun Yang  
Co-PI, NCI T32  
Cancer Epigenetics

# Sylvester Career-stage Specific Enhancement Programs

High School and Undergraduate Students	Medical and Graduate Students	Postdoctoral and Post-MD Trainees	Faculty and Professionals
<p>Students Training in Research (STIR) (exclusively for underrepresented students)</p>	<p>Graduate Program in Cancer Biology (CAB)</p>	<p>Postdoc Research and Career Development</p>	<p>Faculty Development Program (FDP)</p>
<p>Sylvester Summer Undergraduate Research (SURF) (predominantly for underrepresented students)</p>	<p>Discipline-focused Graduate Programs</p>	<p>Training grants (postdocs/clinical fellows)</p>	<p>K12: UM Calabresi Clinical Oncology Research Career Development Award (<i>new</i>)</p>
<p>Breakthrough Miami (high school students focusing on cancer disparities)</p>	<p>MD/PhD Training (MSTP)</p>		<p>Global Oncology and International Programs</p>
<p>BD2K-LINCS Summer Research Intern Program (NIH-funded)</p>	<p>Pathway: Oncology and Related Health Disparities (medical students) (<i>new</i>)</p>		<p>Oncology ARNP</p>
	<p>Pathway: Jay Weiss Institute for Health Equity (medical students)</p>		<p>CME Symposia/Conferences</p>

# Cancer Research Career Enhancement Efforts Involve Extensive Interaction at the University of Miami



# Strategic Planning Efforts Increased – Cancer-related NIH Training Funding (2016 – 2018)

High School and Undergraduate Students	Medical and Graduate Students	Postdoctoral and Post-MD Trainees	Faculty and Professionals
<p><b>R25:</b> NCI Breakthrough Miami (PI: Kobetz)</p>	<p><b>T32:</b> Medical Science Training Program (PI: Lemmon)</p>	<p><b>T32:</b> Research Training in Surgical Oncology (PI: Merchant)</p>	<p><b>K12:</b> UM Calabresi Clinical Oncology Research Career Development Award (PI: Slingerland)</p>
	<p><b>T32:</b> NIGMS Cellular Adaptation to Stressors (PI: Lee with FIU)</p>	<p><b>U54:</b> Center for Excellence in Precision Medicine &amp; Population Health: Training Core (PI: Weiss)</p>	
		<p><b>U54:</b> UM CFAR (PI: Mesri)</p>	
		<p><b>T32:</b> Translational Research Training in Gastroenterology &amp; Hepatology (PI: Abreu)</p>	
		<p><b>T32:</b> Interdisciplinary Research Training in Otolaryngology (PI: Liu)</p>	
		<p><b>T32:</b> Cancer Epigenetics Training Grant (MPI: Yang and Figueroa)</p>	
		<p><b>T32:</b> NCI Behavioral and Psychosocial Aspects of Cancer Health Equity (PI: Penedo)</p>	
		<p><b>T32:</b> NIDA Opioid Abuse (PI: Roy)</p>	

**Sylvester funds extra positions and provides full administrative support**

**Planned**

# Sylvester Comprehensive Cancer Center CRCERA Program Rating “outstanding”

## What the reviewers liked:

- **diverse career enhancement activities** ....across the **training pipeline** .....  
appropriate and stage specific
- a unique aspect ...**engage minority and underserved high school and college students** ...Biomedical Big Data Science...the Center for Haitian Studies  
Students Training in Research ....Summer Undergraduate Research Fellowship ...
- **organizational infrastructure** ....provide oversight and strategic direction
- **recent success** with obtaining institutional training programs in cancer  
education ....filled a significant void in the Center’s education and training portfolio.  
.....**integration of population-based research** into these ..... training programs
- trainees and junior faculty who are **diverse in terms of the racial/ethnic background**
- **evidence-based methods** ....to identify educational priorities among postdoctoral  
and clinical fellows and junior faculty are used to develop new programs.

# Sylvester Comprehensive Cancer Center CRCERA Program Rating “outstanding”

## What the reviewers did not like:

- **systems and metrics for tracking the outcomes** ....are not well articulated and it appears this is a future direction for this component
- **modest number of individual career development awards** ....., **K-awards** and **other indicators of junior faculty success** was less evident
- **more focus seems needed in nurturing junior faculty**, especially junior physician scientists and translational researchers