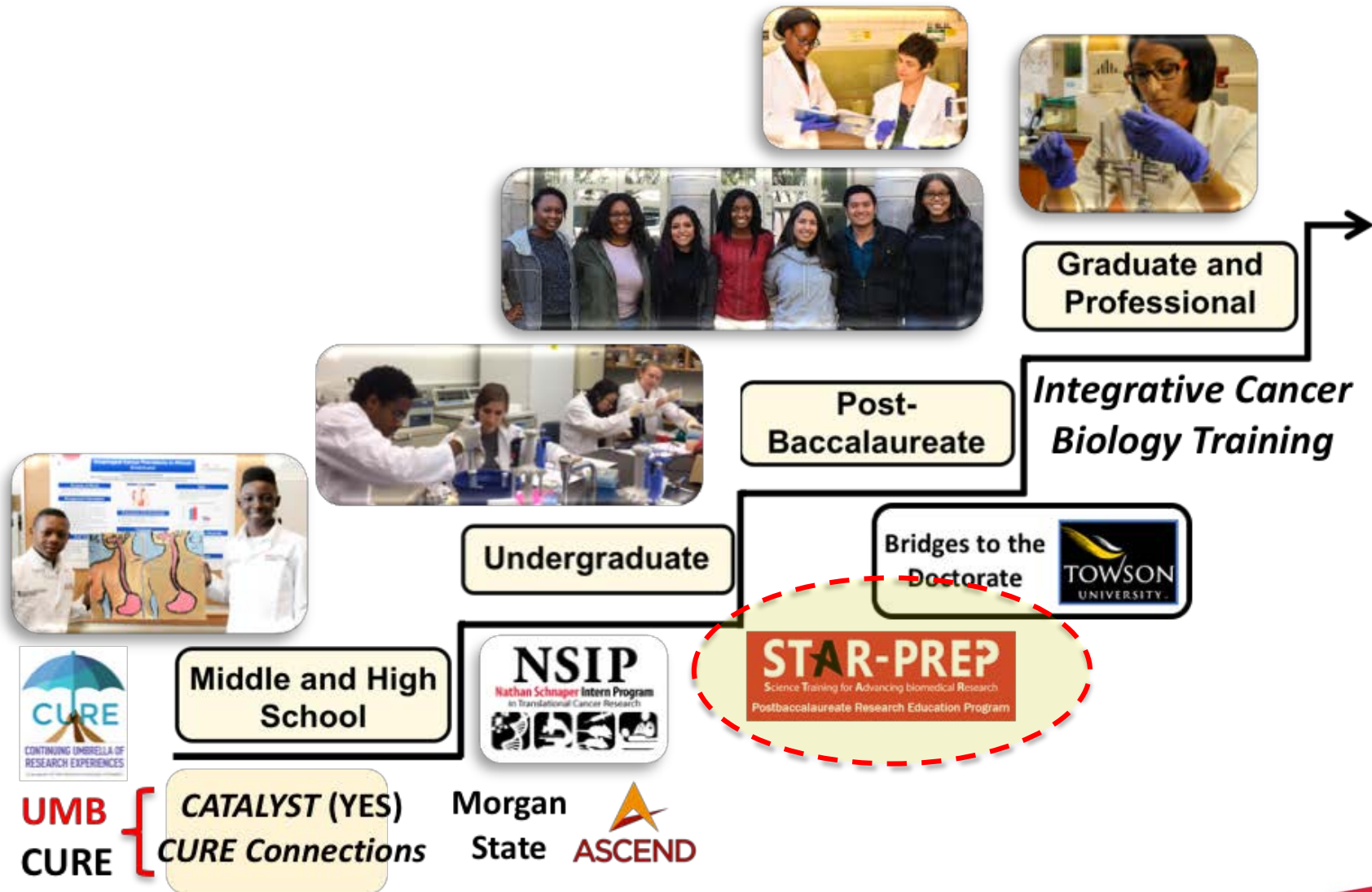


Evolution of a cancer-focused STEM education pipeline at UMB



STAR-PREP

Science Training for Advancing biomedical Research

(Postbaccalaureate Research Education Program)

University of Maryland School of Medicine
Greenebaum Comprehensive Cancer Center
University of Maryland Baltimore

STAR-PREP Leadership Team



Eduardo Davila
Founder



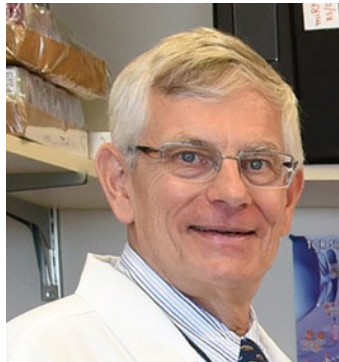
Greg Carey, PhD
Director



Laundette Jones, PhD, MPH
Associate Director



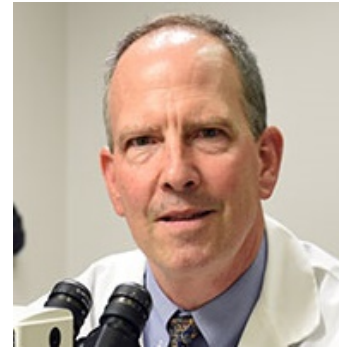
Leanne Simington, MS
Contracts and Grants Coordinator



Terry Rodgers, PhD
MPI, Leader



Toni Antalis, PhD
MPI, Leader



Bret Hassel, PhD
Core Faculty,
Student Adviser



Tonya Webb, PhD
Core Faculty
Adviser

Goals, Components, Tactics

- **NIH Goals**

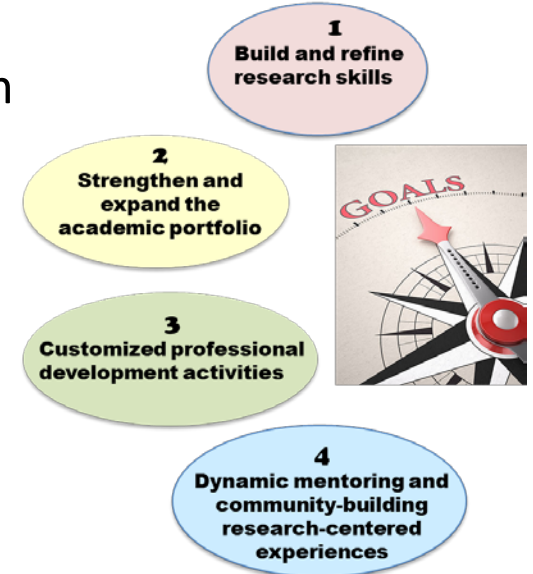
- Prepare UR groups for both successful entry into, and **completion of, rigorous Ph.D.** training programs to diversify biomedical research workforce
- Goal 75% entry & 75% complete MD-PhD or PhD program
- diversify awardee institutions' graduate programs

- **UMB PREP Goals**

- Build scholar expertise, confidence **and sense of belonging/community**

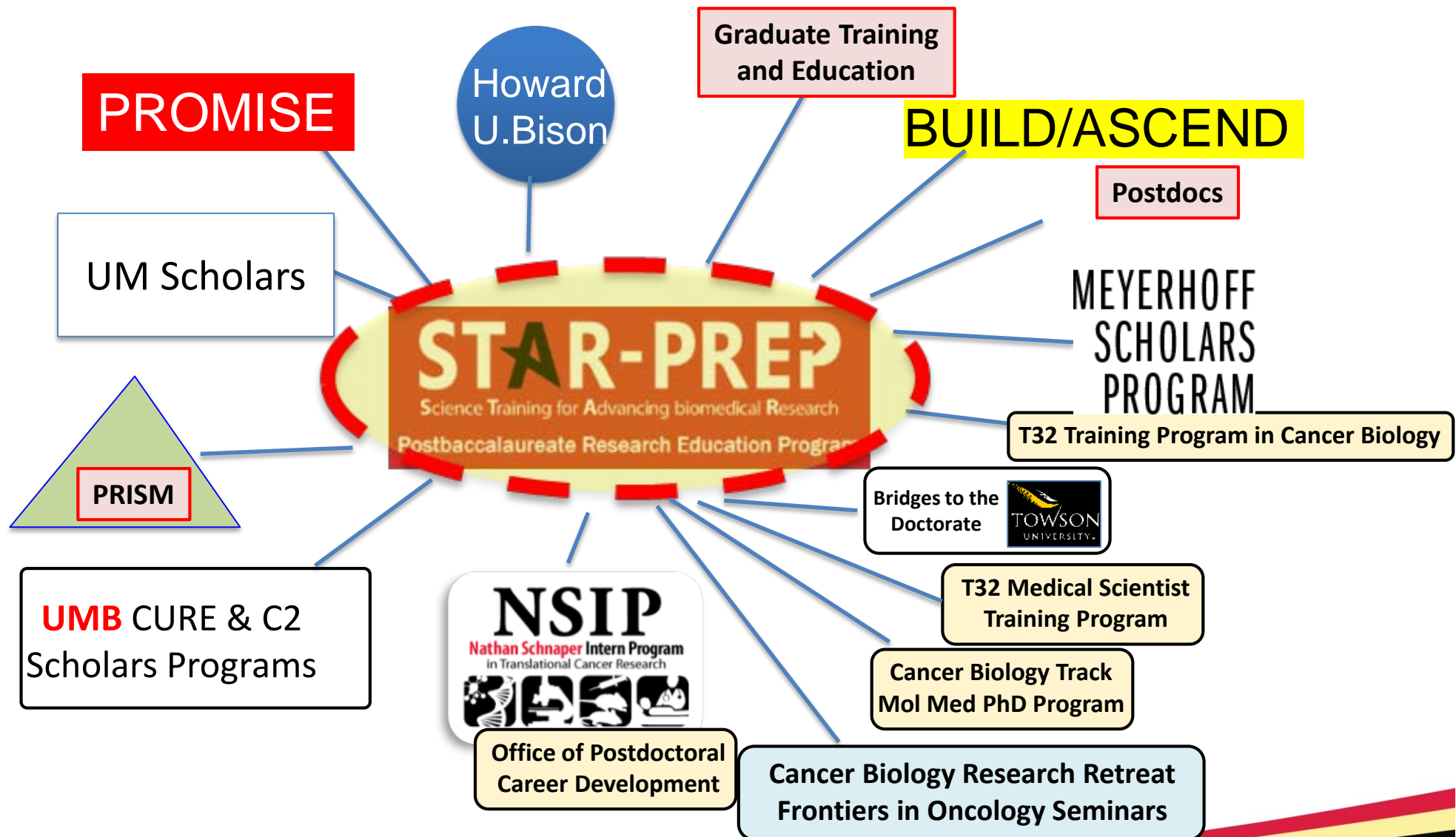
- **Approach/Components**

- Accomplished through rigorous programming:
 - **Components:** Analytics, lab experiences, writing, presentations, course immersion, **integration and connection into graduate and campus life**, participation, professional- development, intentional focused and broadening experiences, cultural celebration



STAR-PREP Interactions

Constellation of UMB and USM Funded-programs



Strengths: STAR-PREP Selection

- Geographic diversity
 - Puerto Rico, Florida, South Carolina, Illinois, Pennsylvania, New York, Maryland
- Cultural and ethnic diversity
- Male and female diversity
- Accepting top 20% of applicant pool (~12/60 annually)
- Enrolling top 10% of applicant pool (~6/60 annually)

2019-2020 STAR-PREP Cohort IV Scholars



Carl Bannerman
BS Biology
UMBC 2019



Jeff Inen
BS Biology
UMBC 2018



Uriel Jean-Baptiste
BS Biochemistry
Florida State U 2018



Savoleak (Noury) Khim
BS Neuroscience and
Molecular Bio. Temple U. 2019



Jatia Mills
BS Biology
Morgan State U. 2019



Darex Vera-Rodriguez
BS Industrial Biotech
U Puerto Rico, Mayaguez 2019



Cassandra Jordan
BS Aurora University, IL

Challenges

- **Universal and reasonable start time to build cohort and concentrate onboarding and early programming**
- ***Programming overload?***
 - Setting and managing mentor and student expectations
- **MD-flight risk and *lure of MD-PhD...***
- **NIH Funding for 2nd student PREP year**
 - Found some highest-potential, PhD track students still need 2nd year
 - Found almost all MD-PhD track students to date needed 2nd year
 - (great potential however, clear and assessed gaps in research and shadowing etc.)
- **Increased funding support (to accommodate more students and programming)**
- **Increased funding flexibility**
 - Especially around advertisement, recruitment, mandates, enrichment activities
- **Admin challenges**
 - Not quite graduate students, not quite employees (affects tuition remission, salary considerations etc.)

Future Directions

- **RENEWAL – January 24th, 2020**
- **Expand STAR-PREP : Institution and STR-PREP : student-affiliate relationships to amplify collateral impact of NIH through programs like STAR-PREP**
- **Stronger partnerships with STAR-PREP and IMSD *families***
- **Development of improved evaluation tools**
 - **To benefit training**
 - **Measure impacts on students and environment**

THANK YOU



Graduate and Professional



Post-Baccalaureate

*Integrative Cancer
Biology Training*



Undergraduate

Bridges to the
Doctorate



Middle and High School



UMB
CURE { CATALYST (YES)
CURE Connections

Morgan State
ASCEND

