SPARC and YES for CURE: Leveraging Partnership Strengths for R-25 Success

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UMass Boston Dana-Farber/Harvard Cancer Center Partnership History

- Initiated in 2002
- In 2005, $4.2M NIH/NCI U56 grant funded to support collaborative research projects and student training
- In 2010, received $13.7M NCI U54 grant to support advanced research, education, and outreach
- In 2016, U54 renewed
- In 2017, Summer Program to Advance Research Careers (SPARC) R25 awarded by NCI to expand and enhance research training opportunities for early undergraduates and community college students (1R25CA214256-01) $1.33 million over 5 years
- In 2017, Young Empowered Scientists for ContinUed Research Engagement (YES for CURE) R25 awarded by NCI to engage Boston area high school and undergraduate students will engage in research experiences and scientific training (R25CA221738-01) $1.92 million over 5 years

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Research Education Core Mission

Train the next generation of scientists from underrepresented backgrounds who can assist in reducing the unequal burden of cancer.

Education Day 2017

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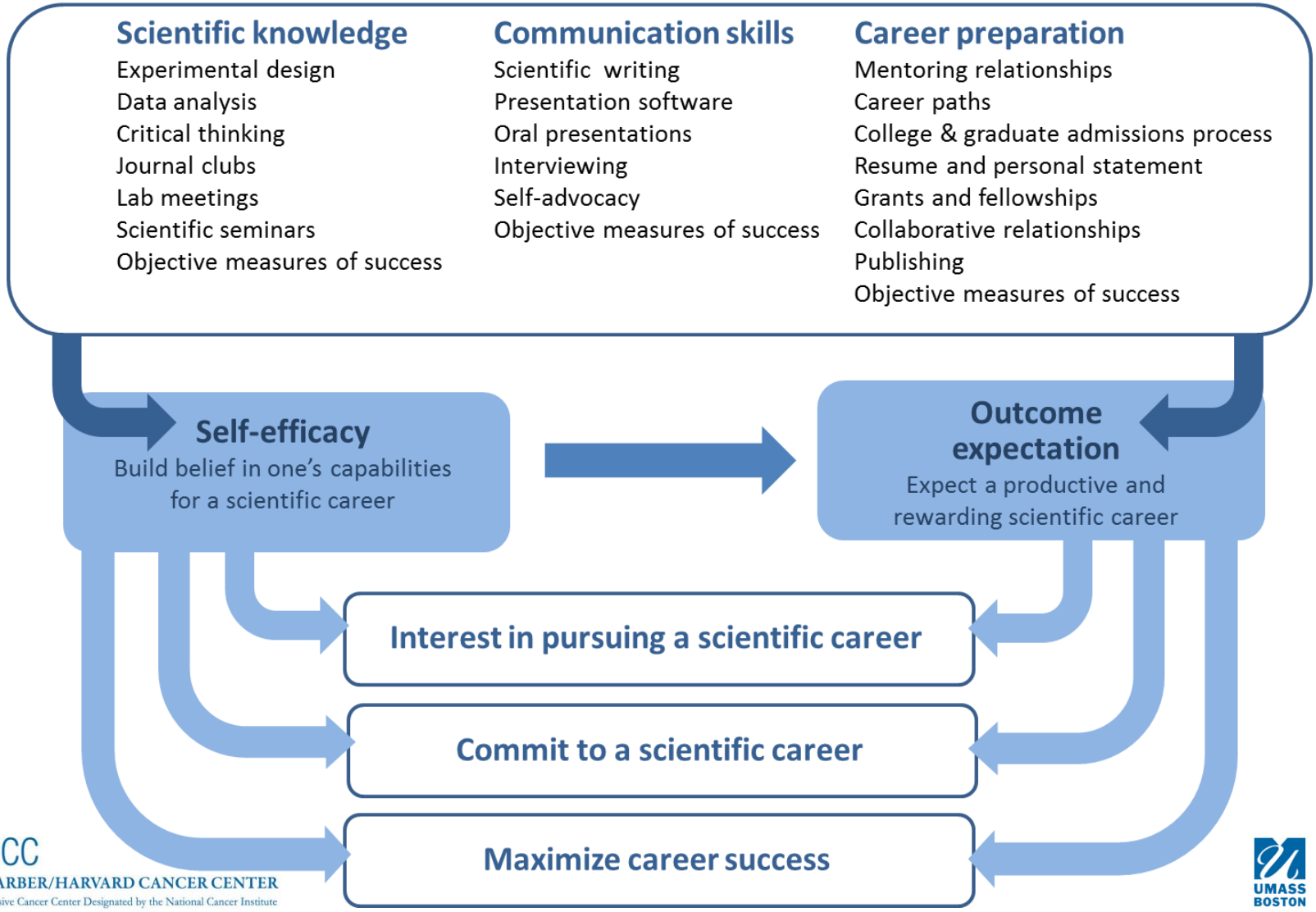
Specific Aims

1. Expand and diversify the pool of cancer/cancer disparities research scientists
2. Build investigators' capacity to provide mentored research experiences that support the development of diverse scientists.
3. Track participants' educational progress, career trajectory and scholarly activities
4. Contribute to the research education literature
5. Sustain and expand research education through attainment of grants and gifts

Research Education Framework



DF/HCC
DANA-FARBER/HARVARD CANCER CENTER
A Comprehensive Cancer Center Designated by the National Cancer Institute

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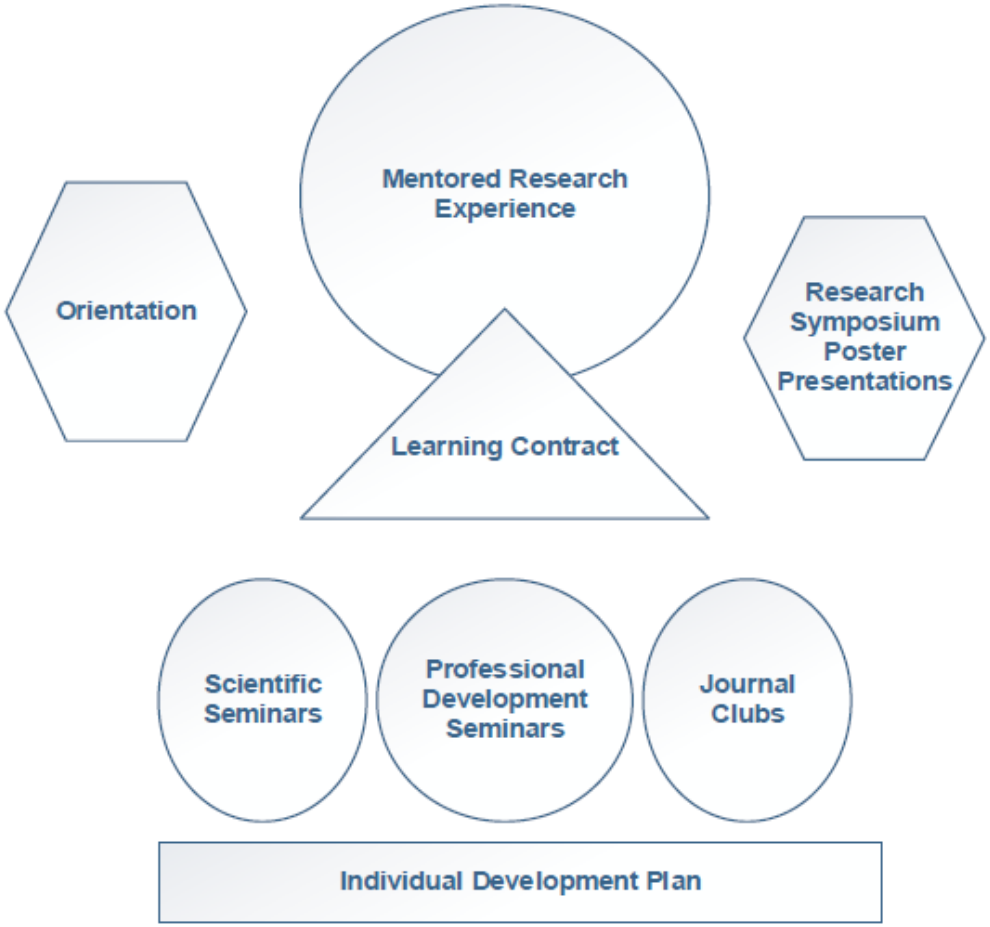
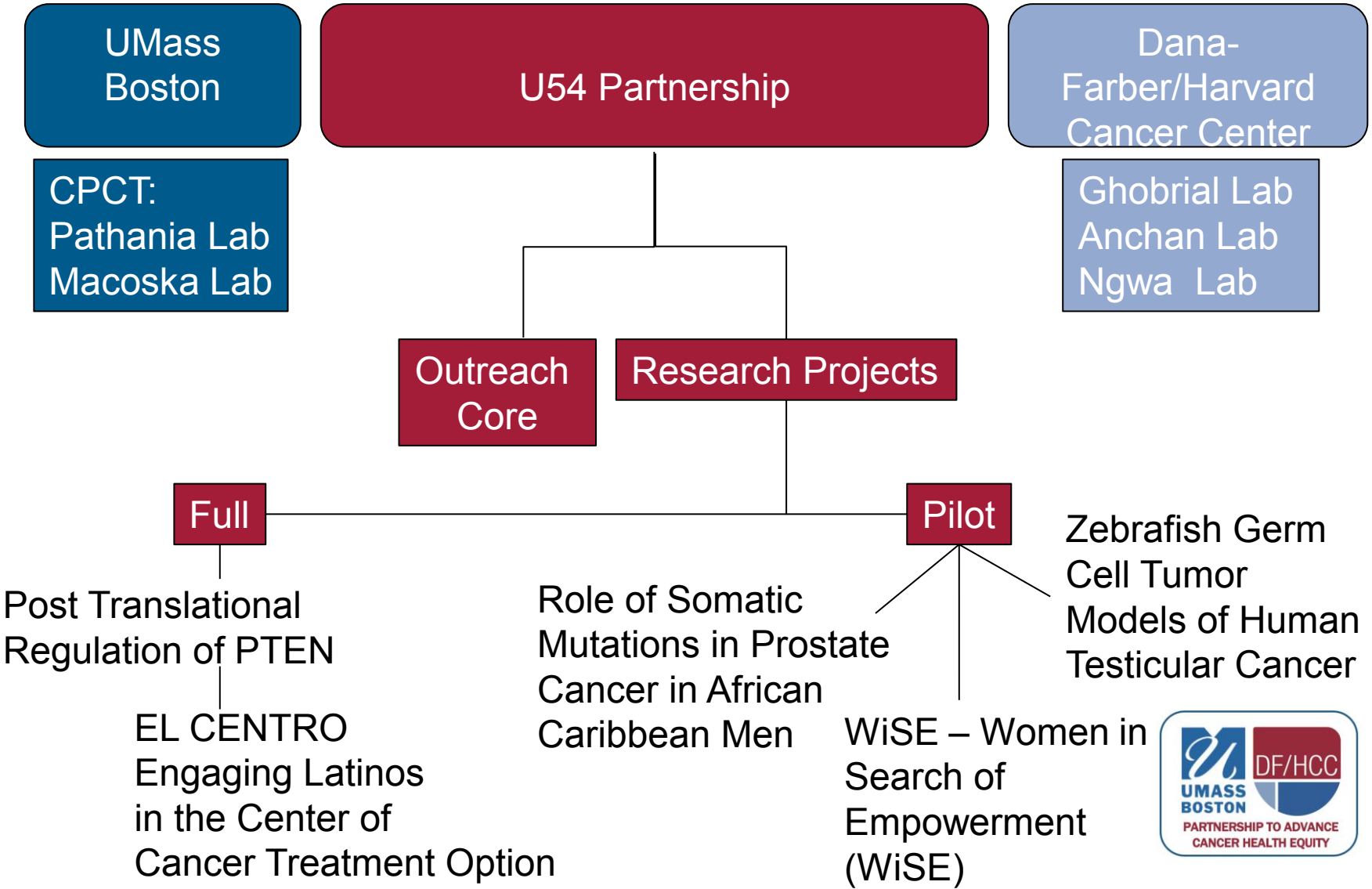
Key Programmatic Components



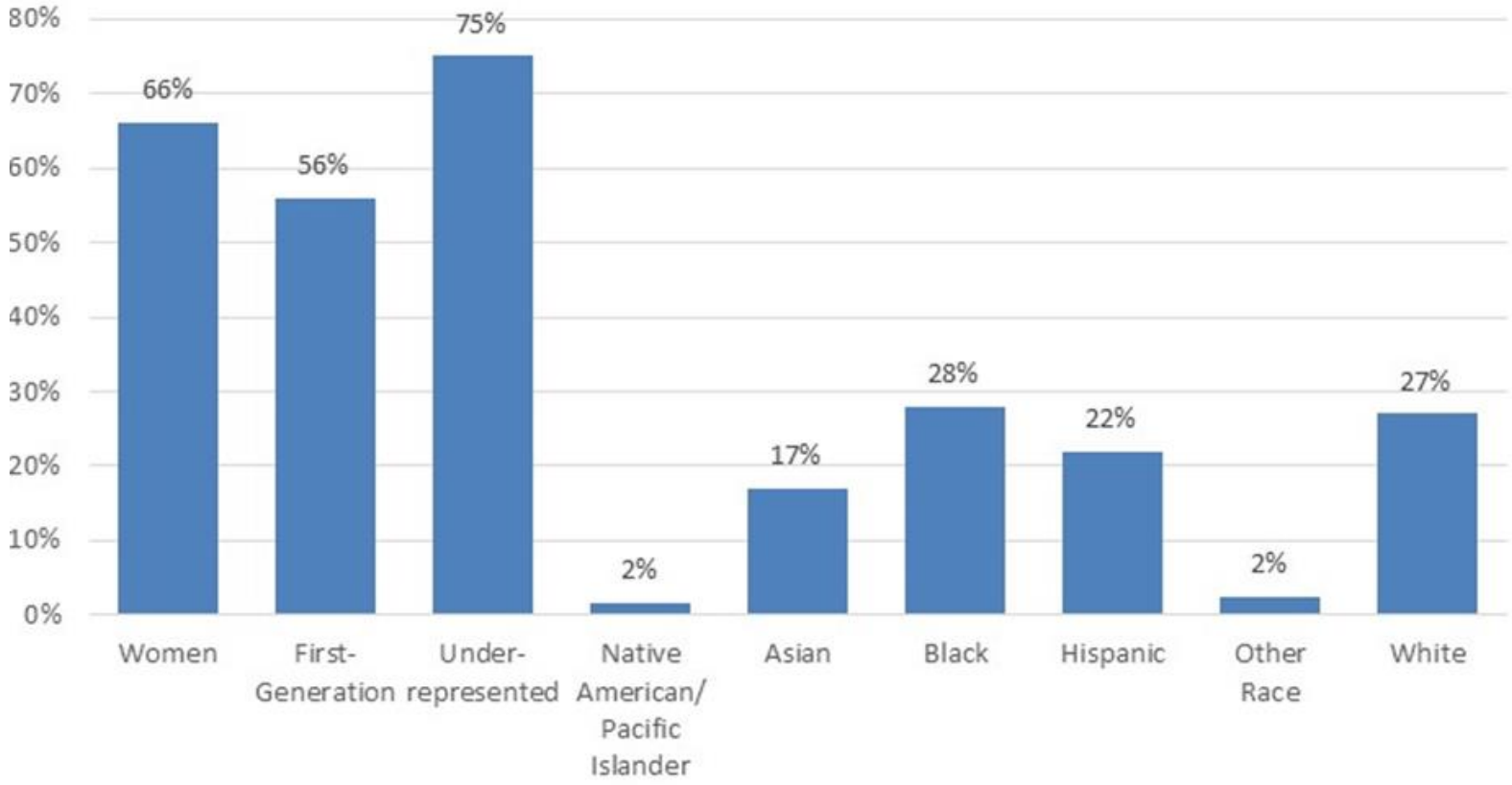
Research Education Programs

Level	Program Elements	Trainees/ Year	Participation
Undergraduate	Research, Career Development, Scholarly Activity	20-25	1 summer/semester; may continue
Graduate		6-8	1 summer/semester; may continue
Post-baccalaureates		2	1 year
Post-doctoral Fellows Nursing Population Science Basic Science	Research, Mentor Training, Career Development, Scholarly Activity, Teaching Experience	3 (1 per area)	2 year traditional, 2 summer non-traditional
Graduate, Postdoc, Faculty, Staff	NRMN Entering Mentoring Curriculum & Mentor Monday's @UMB		1-8 workshops or monthly meetings

Interdisciplinary Research Environments



332 Trainees/Fellows through U54
75% Underrepresented



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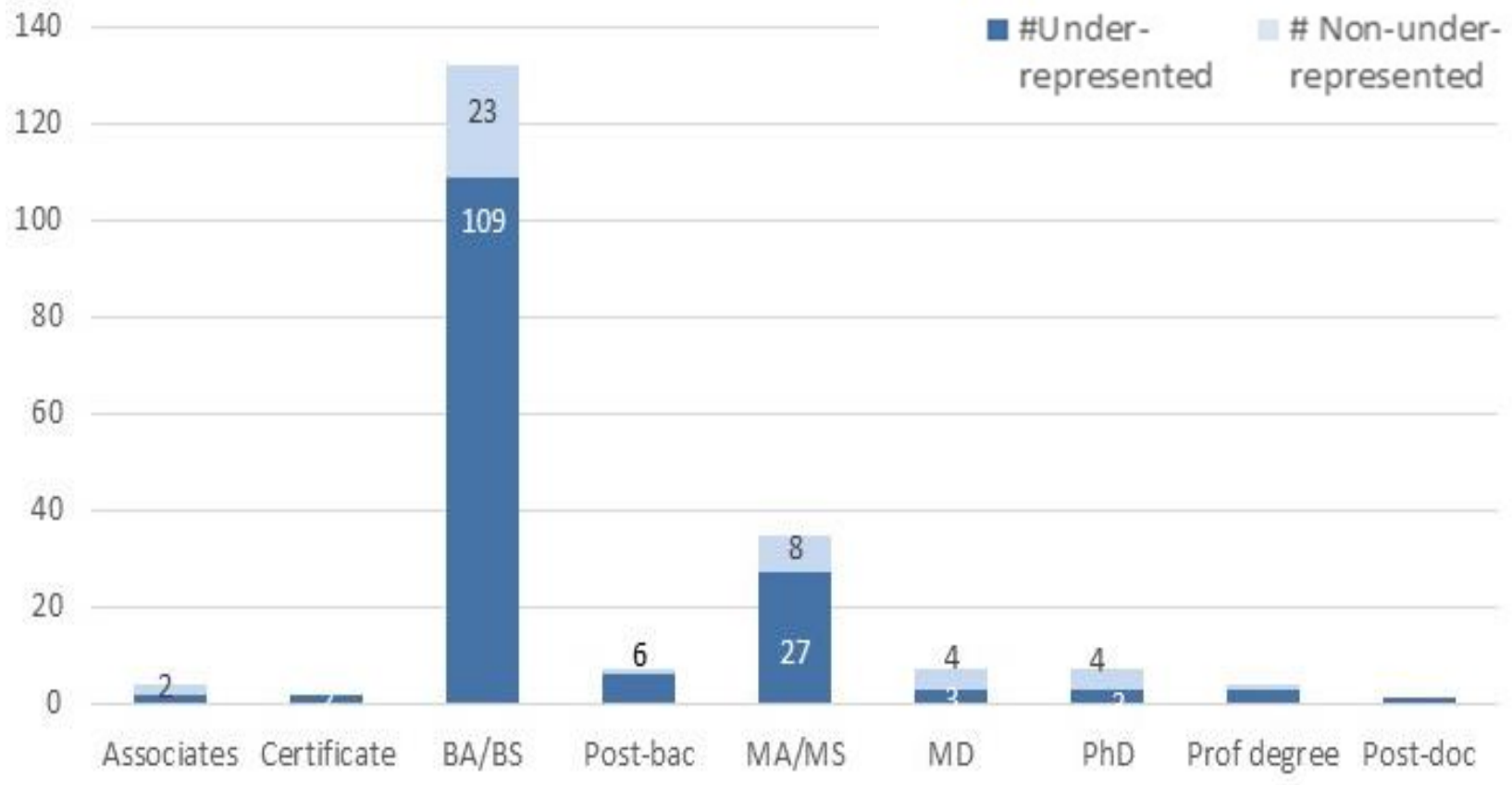
Trainees who start as undergraduates are starting to pursue graduate and advanced degrees



Highest Degree Completed

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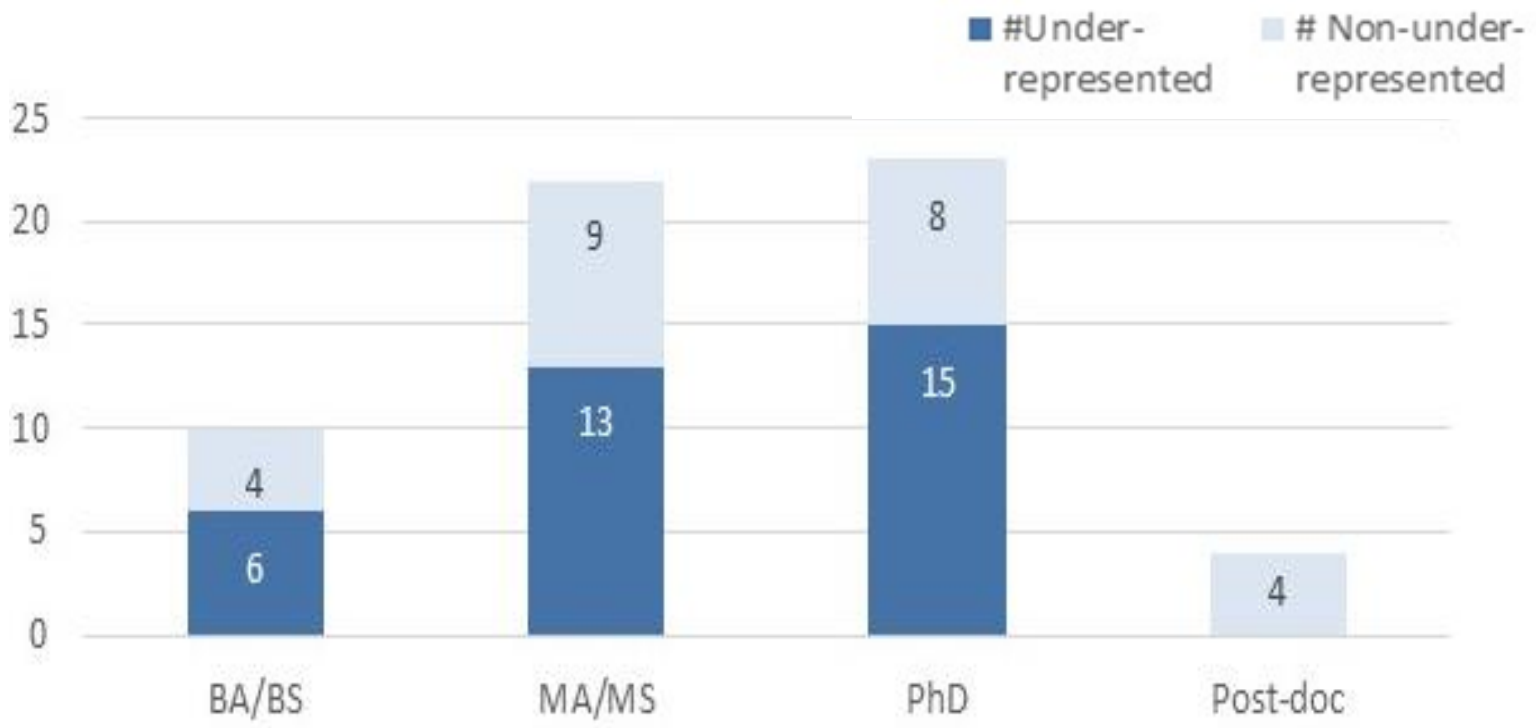
Trainees who start as graduate students are pursing advanced degrees



Highest Degree Completed

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Institutions Trainees are Enrolled in and Attaining Degrees from

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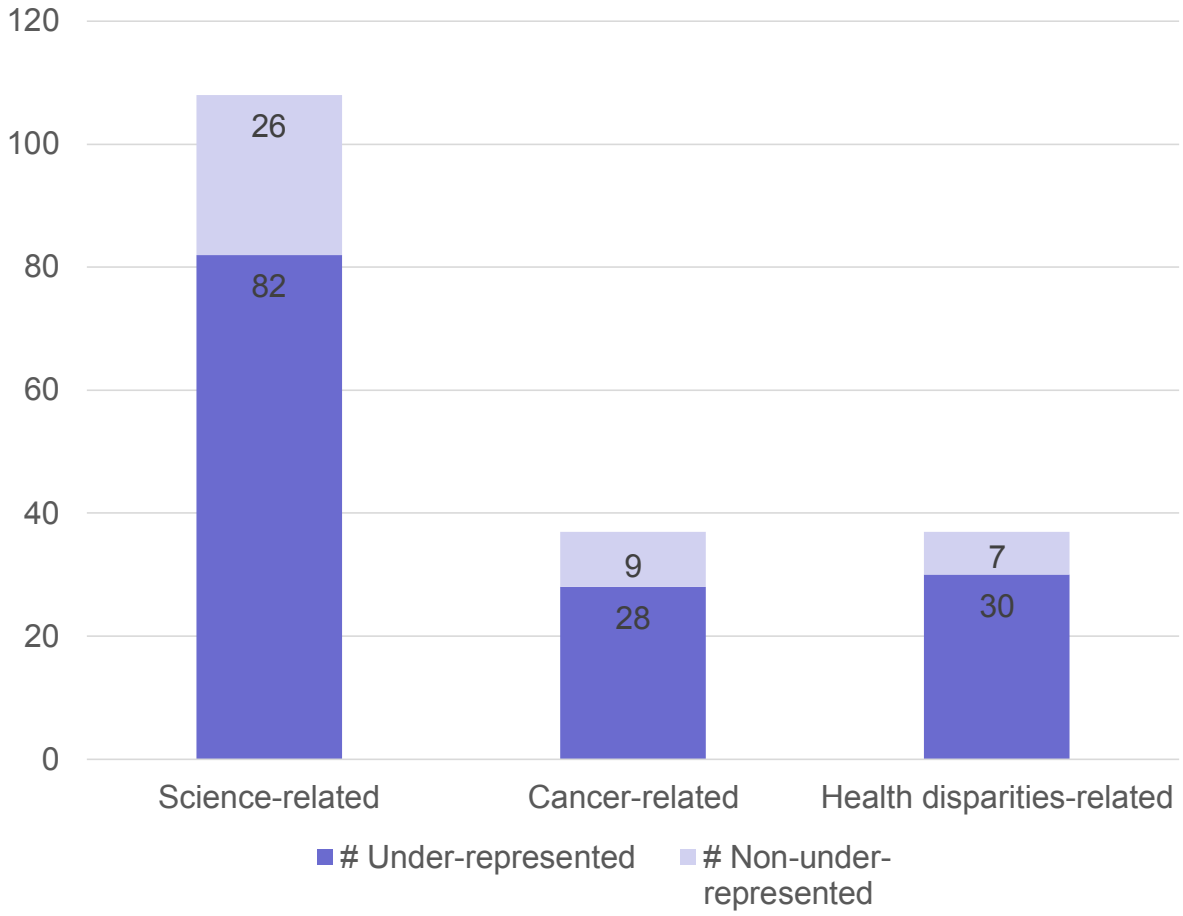
108 trainees/fellows are working in a science, cancer, and/or health disparities related field—65% of those who report working.



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Positions Held by Trainees who are Working

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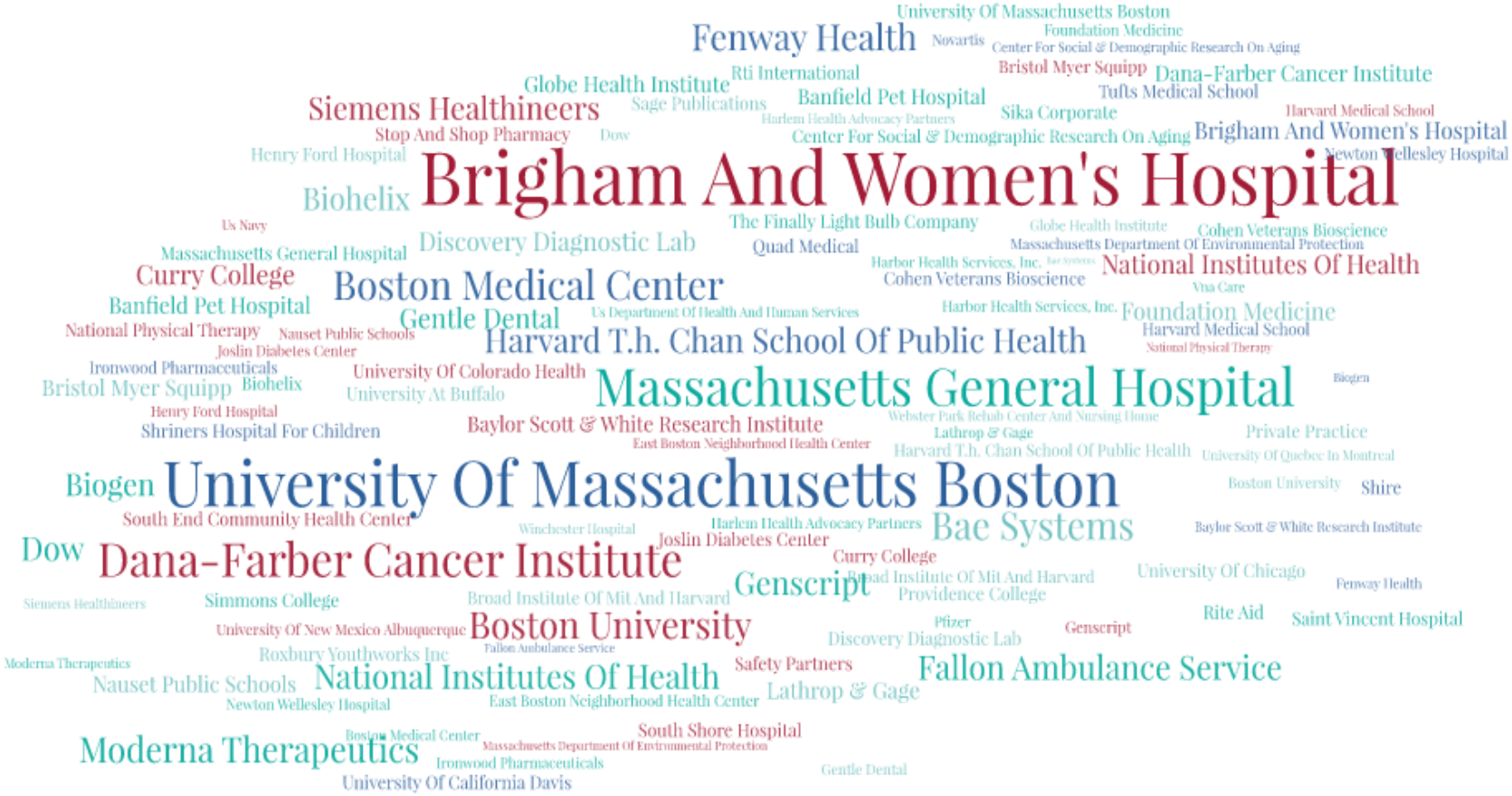
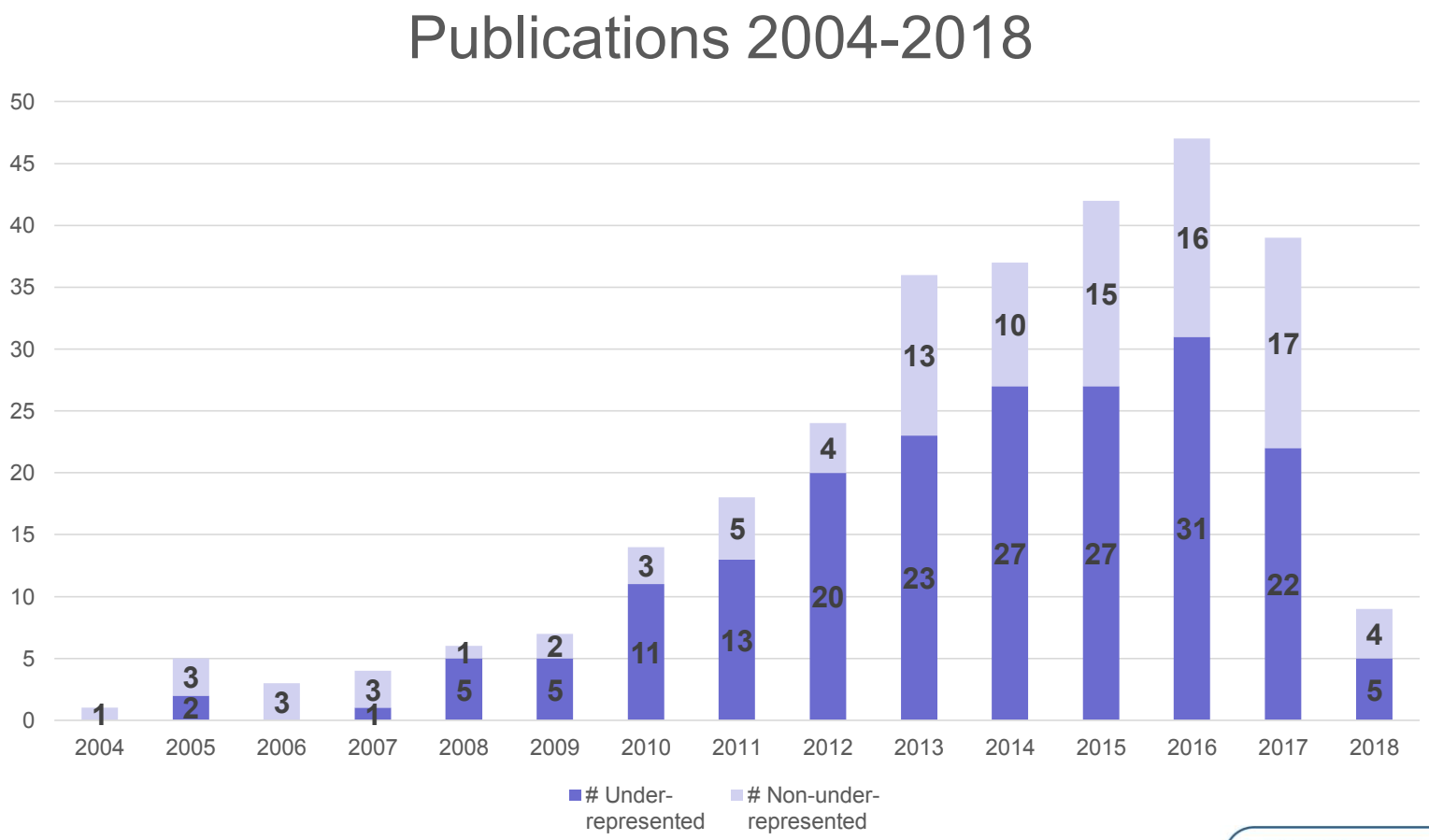
Where Trainees are Working



118 trainees/fellows have published 355 articles



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Yes for CURE Goals

- Introduce high-school and undergraduate students from underrepresented minority populations to the world of cancer research by placing them in real research settings: basic, clinical, population science and nursing research.
- To engage the scientific curiosity and promote the academic success and future research careers of promising young scientists from underrepresented communities.

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Yes for CURE Target Audience and Structure

- 40 high-school and undergraduate students from underrepresented minority populations for intensive two year experience—full-time mentored research experiences for two summers and academic year career development and scientific socialization.
- Middle school student and family engagement aimed at increasing scientific curiosity and exposure to cancer/cancer disparities research—partnership with UMass Boston Talent Search Program.

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SPARC Goals

- Expand pool of undergraduates, especially those from underrepresented backgrounds, who are interested in and prepared to pursue cancer and cancer disparities research careers
- Increase completion of STEM degrees through participation in engaging research experiences and activities focused on introducing students to the community of science and building their motivation to persist.
- Introduce participants to graduate school and career opportunities in STEM, particularly to careers and academic programs focused on cancer and cancer disparities.

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SPARC Target Audience and Structure

Twelve week cancer research experience for 30 first and second year students at UMass Boston, Mass Bay Community College, Bunker Hill Community College, and Roxbury Community College at DF/HCC and UMB research environments that will:

1. Build scientific knowledge in the area of cancer and emerging technologies
2. Foster development of communication skills
3. Promote individualized career preparation

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QUESTIONS?

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