

Planning Grants (P20) for the Development of SPORes in Cancer Health Disparities

BSA Presentation

Center to Reduce Cancer Health Disparities
Translational Research Program/ DCTD

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P20 SPORE RFA Working Group

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Specialized Programs of Research Excellence (SPORE)

- SPOREs can focus any of the following:
 - An organ-specific cancer,
 - A group of highly related cancers, such as sarcoma, gastrointestinal, neuroendocrine, etc., and
 - Cancers related by common biological pathway mutations/alterations
 - Cross-cutting themes, such as pediatric cancers, virally-related cancers or **cancer health disparities (CHDs)**.
- Regardless of the focus, SPOREs must propose **translational research**
 - **SPORE Definition:** Uses knowledge of human biology to develop and test the feasibility of cancer-relevant interventions in humans and/or determines the biological basis for observations made in individuals with cancer or in populations at risk for cancer

Translational Research Portfolio in CHDs: SPORE and NCI-Wide

- No active SPOREs are specifically focused on CHDs, at least three have individual disparity-related projects

FY 2016 SPORE Portfolio in CHD-relevant cancer sites

Organ Site	# of SPORES	# of CHD Projects
Prostate	8	1
Breast	5	1
GI	5	1
Lung	3	0
Multiple Myeloma	2	0
Leukemia	2	0
Cervical	1	0
Liver	0	0
	26	3

- Analysis of “cancer health disparities” active awards found few with a translational research focus (majority basic or population sciences)

NCI CHD P01/SPORE Development Workshop

- **Held at the AACR Science of CHD Conference, September 2016**

- Hosted by CRCHD with trans-NCI participation
- 49 extramural investigators attended

- **Objectives of the workshop**

- Update investigators on NCI CHD research priorities
- Provide tips on application development, submission, and review
- Encourage collaboration with colleagues and NCI staff

- **Evaluation results**

- 6 investigators considering a CHD SPORE; 20 considering a CHD P01
- Concerns over P50 complexity and rigorous requirements

Workshop confirmed there is interest in CHD-focused SPOREs and there may be benefit from developing a P20 opportunity.

P20 CHD SPORE: Potential Outcomes

- Increase the NCI's translational research portfolio in cancer health disparities
- Provide feasibility and planning support to enhance the applicant pool for CHD-focused P50 SPORE grants
- Increase the competitiveness of SPORE applications in CHD translational research.
- Foster collaborations between P20 and P50 awardees by integrating P20 PIs into SPORE community (e.g. monthly teleconferences, annual workshops).

P20 vs P50 SPORE Comparison

	P20 SPORE	P50 SPORE
Minimum Number of Research Projects	2	4
Minimum Research Base Investigators	2	4
Required Cores	Admin and Biospecimen	Admin and Biospecimen
Developmental Research Program	Yes	Yes
Career Enhancement Program	No	Yes
SPORE Director Minimum Effort	1.2 CM	2.4 CM
Annual Budget Per Award	\$800K DC / 1.3M TC	\$2.3M TC
Award Period	3 years	5 years

**Anticipating 3 awards for P20

All P20 applications must detail a clear transition plan for how the Program will evolve into a P50 SPORE Program within 3 years.

Examples for CHD-focused SPORs

- **Focus on a single cancer, with different research questions**
 - **Example:** Clinically relevant projects focused on improving outcomes of Triple Negative Breast Cancer (TNBC) in African American (AA) patients
 - Precision medicine trial, sequencing actionable somatic mutations and targeting treatment in a basket design trial
 - Identifying noninvasive biomarker profiles to detect residual metastatic disease

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- Focus on similar research questions, with different cancer sites or patient populations
 - **Example:** Investigate immune profiles within tumor microenvironment (TME) of minority populations and track TME dynamics in cohorts undergoing treatment (numerous cancers)
 - **Example:** Investigate hormonally driven cancers with defined disparities (e.g. Prostate and breast cancers)

Evaluation of RFA

- Evaluation metrics include:
 - Success in stimulating CHD-related translational research.
 - Increased submissions and awards for full P50 SPORE grants (or other comparable funding mechanism) focused upon CHDs.
 - Integration of P20 awardees into the SPORE community.
 - Overall success of individual P20 SPOREs including:
 - translational goals achieved
 - proposed human endpoints reached
 - horizontal and vertical collaborations successfully utilized
 - specimens shared with other sites
 - number and quality of publications/scientific presentations

P20 CHD SPORE: Potential Applicant Pool

■ CHD P01/SPORE Development Workshop:

- Identified 6 potential competitive applicants

■ CHD Research at NCI Designated Cancer Centers (CCs)

- Of the 69 centers, **30** have a CHD-focused Institute, Office, Initiative, and/or Program
 - Examples: *Dana-Farber/Harvard CC: Initiative to Eliminate Cancer Disparities*, *Karmanos Cancer Center: Population Studies & Disparities Research Program*



■ Current and previous CHD Investigators

- Partnerships to Advance Cancer Health Equity (PACHE, U54/P20)
 - The PACHE Program fosters/supports collaborations among Minority Serving Institutions and NCI CCs
 - Of research projects investigating breast, colon, or prostate (n=32), **50%** are focused on minority populations (n=16)
- Basic Research in CHD PARs (R21 and R01)
 - Since 2010, 78 projects awarded (42 R21 and 36 U01/R01)
 - Active awards by cancer type:
21 Prostate, 11 Breast, 4 Colon, 2 Cervical, 2 Liver, 1 Lung, 3 Leukemia, 1 Oral, 1 Endometrial.

P20 CHD SPORE RFA: Budget Request

\$3.9M total costs per year

- **Annual Request**

- Up to (3) P20 Cancer Health Disparity SPOREs will be awarded.
- Each P20 award would be **\$1.3M TC per year**
- Total cost for (3) P20 awards is **\$3.9M TC per year**

- **Total Request for the full project period (3 years) is \$11.7M**



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