
Faculty (continued)

In the 11th grade summer, senior researchers from government laboratories at the National Institutes of Health in Bethesda/Baltimore provide research opportunities for DLC trainees for eight weeks. Faculty show DLC trainees the culture of government research, and allow the trainees to experience a different work environment from Academia. PSTP & BSTP trainees typically obtain basic science internships at the following Institutes: NCI, NHLBI, NIAMS, NIDDK, NIAID, NIDA, NIDCD & NIMH. TEMP trainees typically obtain internships at NIBIB (biomedical engineering) and at the NHGRI (biophysics, biostatistics, bioinformatics and computer science).

In the 12th grade summer, Seattle researchers from non-government research institutes and the University of Washington provide internships to DLC trainees. PSTP & BSTP trainees are placed with basic science faculty at Fred Hutchinson, Benoraya, Swedish, and the Institute for Systems Biology. TEMP trainees are placed with faculty at the University of Washington in research areas of biomedical engineering, biostatistics and bioinformatics.

In the college freshman summer, senior researchers from two Canadian universities, University of Toronto and University of British Columbia, provide internships to PSTP & BSTP trainees in translational research areas.

Two Philadelphia-area pharmaceutical companies, Centocor and Merck, provide internships to TEMP trainees in areas of biomedical engineering, biostatistics and bioinformatics.

In the college sophomore and junior summers, senior researchers from the University of Texas – Southwestern (Dallas) provide internships to PSTP & BSTP trainees in translational research areas. NBIB & NHGRI have provided internships to TEMP trainees in areas of biomedical engineering, biostatistics and bioinformatics.

In the college senior summer, senior researchers from Merck-Rahway (New Jersey) and Pfizer-Collegeville (Philadelphia) provide internships to PSTP & BSTP trainees in translational research areas and provide internships to TEMP trainees in areas of biomedical engineering, biostatistics and bioinformatics.

Admissions

The DLC Admissions Committee maintains a national network of contacts at junior high schools of excellence in order to identify minority child prodigies in the 7th grade who have already expressed a desire for a career in STEM. The target populations for this “researcher development project” come from the following minority communities who are underrepresented in the biomedical arena: African-American, Mexican-American, Mainland Puerto Rican, Native Hawaiian, Native American, Native Alaskan, and U.S. Pacific Islander. Once 7th graders are identified, information about the STEMPREP Project is disseminated to prospective trainees and their parents in order to recruit the student. Interested applicants have to submit an application packet, which consists of an application, a career goals essay, a three year transcript of A grades, and SSAT scores above the 90th percentile. The Admissions Committee then selects for interview the best individuals from this national pool of candidates. After the interview, each applicant sits for a vocational interest blank in order to make certain that there is a subconscious desire for a STEM career. All of the above criteria are taken into account before offering an acceptance into the 7th grade class of 60 trainees. Trainees begin their first internship the summer after completing the 7th grade.

Parents must pay the annual transportation costs for getting their child to the training site, as well as the housing costs (room, board, supervision, weekend events):

Summer Costs for Junior High Internship (7th & 8th) = \$2800 housing for 6 wks

Summer Costs for Senior High Internship (9th, 10th, 11th, 12th) = \$3300 housing for 8 wks

There are a limited number of need-based scholarships to cover the housing costs for low income trainees. Parents must demonstrate financial need in their application.

For more information about the STEMPREP Project please visit our websites: www.thedistancelearningcenter.org and www.smu.edu/stemprep or call, write, or email:

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The STEMPREP Project at SMU

Physician Scientist Training Program (PSTP)

Basic Scientist Training Program (BSTP)

Technology Engineering Math Program (TEMP)

Minority Trainee Research Forum (MTRF)



Distance Learning Center

A revolutionary training paradigm generating new researchers for medicine, science, technology, engineering and math from underrepresented minority populations

Distance Learning Center History and Purpose

The Distance Learning Center (DLC) was incorporated in 1990 as a 501 C 3 non-profit corporation to spearhead the STMPREP Project, a vehicle for producing the next generation of minority researchers in **S**cience, **T**echnology, **E**ngineering, **M**ath (STEM) and Medicine. From the beginning, the DLC designated its target population as being those minority groups who will become the emerging majority in the U.S. by 2050, but who at present are underrepresented in STEM disciplines: African-Americans, Mexican-Americans, Native Americans, Native Hawaiians and Mainland Puerto Ricans. The original mission of the DLC was to develop innovative training concepts, implement comprehensive programs, and to fund raise to support programs for these underrepresented minority groups. The backbone of the DLC has been its pool of volunteers who have given of their time to create a new training paradigm based on an early start model, a longitudinal training continuum and a multi-institutional mentorship approach. Since 1990, the DLC has utilized this revolutionary training paradigm to generate a cadre of trainees eligible for post-baccalaureate programs at the nation's elite graduate schools, medical schools and engineering schools.

The DLC has created three intramural training programs under the STMPREP Project to generate a pipeline of prepared trainees: the **Physician Scientist Training Program (PSTP)** was designed to produce candidates for M.D. programs and M.D./Ph.D. dual degree programs; the **Basic Scientist Training Program (BSTP)** was designed to produce candidates for Ph.D. programs in the biomedical sciences; the **Technology, Engineering & Math Program (TEMP)** was designed to produce candidates for Ph.D. programs in bio-informatics, Ph.D. programs in bio-engineering, and Ph.D. programs in bio-statistics. The DLC has also created and implemented an extramural annual scientific meeting, the Minority Trainee Research Forum (MTRF), to showcase the underrepresented minority talent in the national biomedical pipeline. After 18 years in Philadelphia, the DLC is now based in Dallas, with training sites in Dallas (7th & 8th graders), Philadelphia (9th & 10th graders), Bethesda/Baltimore (11th graders), Seattle (12th graders), Philadelphia/Toronto/Vancouver (college freshmen), Dallas/Bethesda (college sophomores & juniors) and Philadelphia/Rahway (college seniors).

Physician Scientist Training Program (Early Start Model + Longitudinal Regimen + Multi-Institutional Mentorship)

Junior High		Senior High				Undergraduate			
7th	8th	9th	10th	11th	12th	UG1	UG2	UG3	UG4
6 wks.	6 wks.	8 wks.	8 wks.	8 wks.	8 wks.	10 wks.	10 wks.	10 wks.	10 wks.
Academia		Academia		Govt.	Research Institutes/ Academia	Pharmaceutical Industry/ Academia	Pharmaceutical Industry/ Academia		Pharmaceutical Industry/
U.S. Academic Laboratories		U.S. Academic Laboratories		U.S. Government Laboratories	U.S. Research Institutes Laboratories & Academic Laboratories	U.S. Pharmaceutical Laboratories & Canadian Laboratories	U.S. Academic Laboratories & NIH		Pharmaceutical Laboratories
- Southern Methodist University		- PCOM - Drexel U - Jefferson U - U Pennsylvania		- National Institutes of Health (NIH)	- Fred Hutchinson Swedish Med. Ct. - Inst. Systems Bio. - Benaroya Inst. - U Washington	- Merck - Centocor - UBC - Utoronto	- NBIB - NHGRI - UT-Southwestern		- Merck - Pfizer
Dallas, TX		Philadelphia, PA		Bethesda, MD Baltimore, MD	Seattle, WA	Philadelphia, PA Vancouver, CA Toronto, CA	Bethesda, MD Dallas, TX		Rahway, NJ Philadelphia, PA
Classroom-based regimen		Apprenticeship-based regimen		Internship-based regimen		Internship-based regimen			

Faculty

The Distance Learning Center (DLC) has assembled a cadre of senior researchers for the STMPREP Project who share the commitment to create the next generation of researchers from minority populations that have been underrepresented in the STEM research arena. The DLC has convinced these researchers that a paradigm shift was needed and that the early start model, the longitudinal training continuum and the multi-institutional mentorship approach was the best way to achieve success. A team of seasoned researchers from American and Canadian universities, the U.S. pharmaceutical industry, private research institutes and the National Institutes of Health have volunteered their time and resources to serve as mentors and role models for senior high and college trainees in the apprenticeship-based curriculum.

In the 7th and 8th grade summers, a team of classroom-based teachers provides a general foundation in contemporary research skills at Southern Methodist University (Dallas) across six weeks. 2nd year medical students teach the Research Skills course, while graduate students teach the Statistics Course, Research Presentation Course and the Research Writing Course.

In the 9th and 10th grade summers, a team of senior researchers from Academia build upon the trainee's general foundation gained in the DLC junior high school component by providing a specific research lab experience across two summers. Faculty spend eight weeks each summer with the trainee and are drawn from four universities in Philadelphia: University of Pennsylvania, PCOM, Thomas Jefferson University and Drexel University.