Cedars-Sinai and California State University at Dominguez Hills Post Undergraduate Fellowship Working Framework

2023 - 2024

This program is a one-year paid post-undergraduate fellowship for underrepresented California State University at Dominguez Hills (CSUDH) students interested in gaining in-depth pre-graduate experience in primary care and prevention, behavioral health, senior health, and other health careers, including emerging fields (nanotechnology, digital medicine, health informatics, data science, regulatory science). The program is intended to encourage and prepare individuals with a near-term (1 to 2 years) interest in graduate or professional health-related fields. The program includes a 9-month mentored training experience tailored to student interests. The mentored programs will be complemented with opportunities to engage in community health, skill building in preparing applications to professional schools, and year-long required learning on the health of the American population and its diverse communities. Participation includes enrollment in a 1 hour/week seminar course for two semesters. The paid training fellowships are hosted by Cedars-Sinai Medical Center (CSMC) and Cedars-Sinai Cancer Center (CSCC).

Program Objectives:

1. Inspire underrepresented and disadvantaged individuals toward professional careers in biomedical fields through training, mentorship, educational and financial support.
2. Increase the numbers of underrepresented and disadvantaged individuals at the professional level in the health care workforce.
3. Enhance awareness about the social determinants of health and the importance of community engagement in healthcare.
4. Enhance fellow's knowledge about health-related data and its current and future role in advancing human health.
5. Create and strengthen educational partnerships, community support, and professional workforce development efforts between CSMC and CSUDH.

Description of Training Program Opportunities

Positions Available	Department
3	**Fellowship in Community Outreach and Engagement** - This training program includes a mentored experience in fieldwork that includes community-engaged research and education, formalized didactic training, core competency training and testing, and seminars that conclude with the awarding of a certificate. This fellowship is intended to provide foundational knowledge and skills needed to

	work with communities concerning their health. The program explores fundamental concepts grounded in public health core competencies. The emphasis during the fellowship is placed on cancer, geocoding cancer incidence and mortality patterns, analyzing community data, working with experts in the field to develop strategies to train communities on the use of data, evidence-based prevention and control practices, and learning how to build the capacity of communities to adapt data for use in the community and advocate for community health with data. (e.g., Degree Paths MPH, MBA, M.Ed, MS Social Work, and PhD [Social Work, Epidemiology, Biostatistics, Data Sciences, Psychology, Financial Economics, MHA]).
2	**Graduate Certificate in Clinical and Regulatory Science** - This program provides a hands-on approach to learning the fundamentals of clinical and regulatory sciences, focusing on practical application in real-world scenarios. Students will actively participate in Cedars-Sinai Cancer's ongoing research projects and clinical trials to acquire valuable skill sets in a clinical setting. The program offers diverse learning experiences, including online coursework, collaborative exercises, and on-site internships, to ensure that students are well-equipped with essential skills upon completion. The Graduate Certificate Program is designed to be completed in one year, with four required courses (CSC 511: Introduction to Medical Product Regulation, CSC 512: Regulation of Pharmaceutical and Biological Products, CSC 517: Structure and Management of Clinical Trials, CSCR 605: Managing Organizations and Human Resources). (e.g., Degree Paths Masters and PhD in Clinical Research/Clinical Investigations (e.g., Hopkins, UCLA, Mt Sinai), MPH, MHA, MBA, M.Ed, MS Biotechnology, RN, and Financial Economics).
2-3	**Computational Medicine** - This program begins with a 12-week training program to develop research-oriented skills in natural language processing methods and data science techniques for extracting and analyzing health-related information from social media. Activities include hands-on experiences, lectures, and discussions, and completing a research project under the mentor's guidance and in collaboration with staff scientists (e.g., Degree paths - Masters or Ph.D. in data analytics, computational biology, bioinformatics, data sciences, biostatistics, epidemiology, computer science, health informatics, genomics …)
2	**Regenerative Medicine -** This program will expose fellows to Regenerative medicine. This new and developing field aims to restore function in diseased or aged tissues by revitalizing or transplanting new cells. Fellows will be introduced

	to Regenerative Medicine through activities that include hands-on laboratory research experiences, lectures, and discussions and completing a research project under the mentor's guidance and in collaboration with staff scientists. Fellows will learn about the uses of stem cells, growth factors, engineered cells, nanomedicine, and bioengineering in treating various human diseases, including neurodegenerative disease and cancer. (e.g., Degree paths - Masters or Ph.D. in Regenerative science/medicine, stem cell science, neuroscience, cancer biology, cancer medicine …)
2	**Laboratory Sciences (basic and preclinical sciences)** - This program will expose fellows to basic and preclinical research involving cells grown in culture or animal studies. A primary focus of CSMC is the study of human diseases, mechanisms of disease, and the development of diagnostics and new treatments. Research areas include immunology, microbiome and disease, cancer, heart disease, inflammation, metabolism, and aging. Fellows will engage in activities that include hands-on laboratory research experiences, lectures, and discussions and completing a research project under the mentor's guidance and in collaboration with staff scientists. Fellows will learn about laboratory sciences, including animal research, biotechnology, and nanomedicine not otherwise specified. (Degree paths - master's or Ph.D. in several biomedical disciplines involving laboratory sciences, preparatory fellowship for graduate umbrella programs in biomedical sciences)
2	**Population Sciences (Patient or Community research) -** Fellowships are available to study disease and disease prevention in the population. Various opportunities exist in qualitative and quantitative epidemiology, biostatistics, behavioral science, preventive medicine, and interventions to reduce risk or improve patient outcomes in cancer and cardiology. Opportunities will vary based on laboratory availability and fit with student/student interests. (Degree paths - Masters or Ph.D. in several biomedical disciplines, including Epidemiology, Genetics, Clinical Sciences, Behavioral Sciences, Health Delivery Sciences, Psychology, and Social Sciences)
Pending	**Health informatics, Cardiology, and Technology Transfer – *In Development***

Program Requirements and Expectations

- Fellow must:
    - Be a recent graduate from CSUDH.
    - Have a minimum GPA of 3.0
    - Be committed to social justice through community health.
    - Have an intent to pursue graduate or professional school.
    - Commit to work 28 hours/week (minimum) at Cedars - Sinai Medical Center
    - Be nominated by faculty from the College of Health, Human Services, and Nursing (CHHSN).
    - Agree to be paid via stipend.

Program Selection and Matching Process

- Application – Nominees will complete a "Toro Health Pathways Cedars-Sinai Fellowship application.
- Program Selection – Nominees will select their training program(s) of interest (see list above).
- Interviews – Nominees will participate in a virtual interview (15-30 minutes) with faculty mentors of the selected training programs.
- Mentor/Mentee Match – Faculty Mentor/Nominees will rank the individual they want to work with. Mentor/Mentee will be matched according to their ranked preferences. There is no guarantee that Mentor/Nominee will be matched with their first choice.

Program and Seminar Activities:

1. Onboarding and Orientation as a Cedars-Sinai fellow AND enroll in a 1-unit seminar course at CSUDH.

2. Internship Learning Contract - The Learning Contract allows each student to plan his/her internship experience. Each student is responsible for writing his/her learning contract in collaboration with their mentor. (A sample Learning Contract and information on how to develop will be provided).

3. Weekly meetings – Check-in, identifying and developing opportunities in program areas (e.g., seminars, workshops etc), fellow updates.

4. Monthly Lecture Series (Cedars Sinai)- The Health of American Communities

5. Practicum - Includes 9 field assignments (monthly activities with learning objectives), allowing students to observe and document how working professionals perform their duties.

6. Reflection Journal - Includes 9 entries (1 / month) on specific topics and maximizes learning opportunities about fellowship experiences.

7. Poster Presentation - As part of their fellowship program, students will create a scientific poster that showcases their newfound knowledge. This activity allows them to gain insight into how research findings are shared and hone their scientific communication skills, including writing, presenting, and speaking.

8. Community Outreach and Engagement – As part of the fellowship, students will be asked to identify and volunteer to participate in at least one opportunity to engage with a community of their choice outside of the professional environment at Cedars Sinai Medical Center. This can be participating in a community health-related event, student engagement event at CSUDH or local/regional high school, affinity groups, or other community-engaged organizations. The Fellowship leads (Kuratani and Thompson) will work with the fellows to identify opportunities to engage with a community of their choice.