

UCSF Establishes Bugher Foundation Hemorrhagic Stroke Scholars Program: A Centralized Research Training and Leadership Center

Q&A with Nerissa Ko, M.D., M.A.S
By Nancy Tao

Nerissa Ko, M.D., M.A.S., Professor of Neurology at UCSF Weill Institute for Neurosciences, will be leading the **Bugher Foundation Hemorrhagic Stroke Scholars Program: A Centralized Research Training and Leadership Center**. The new training center will design and share specialized curriculum, resources, and tools to help train researcher fellows at UCSF, Massachusetts General Hospital and Yale University, as well as establish protocols to train the next generation of stroke scientists.

What is the landscape of hemorrhagic stroke research? Has it lagged behind research compared to ischemic stroke, if so, why?

Hemorrhagic stroke is an underserved area of research. The majority of the adult population is affected by ischemic stroke. In fact, only 15 – 20% of stroke occurrences in adults are hemorrhagic. However, at UCSF, we see more hemorrhagic stroke patients compared to our colleagues in other states because it is also very demographically distinct. It disproportionately impacts children and patients of different minority groups, such as Asians, Hispanics, and Blacks.

Hemorrhagic stroke hasn't received as much attention, awareness, and research funding and that's why the grant is important to train the next generation to move the field forward.

Trying to address hemorrhagic stroke has also been challenging because the field of ischemic stroke research has benefited from the abundance of data, and exciting new discoveries and tools to treat ischemic stroke patients. A young researcher may feel there are too many barriers in hemorrhagic stroke research due to a lack of established data sets in the area. But that's exactly why we need them – we don't have the therapies to treat the hemorrhagic stroke population who are vulnerable. Although it's a smaller population, hemorrhagic stroke causes more disability and death. We still have a lot to learn, such as understanding why they have worse outcomes compared to their ischemic stroke counterparts. Hemorrhagic stroke is not an easy disease to study so I understand why young researchers might think the field is too complicated.

How is the training center set up and what sets it apart from other training centers?

I will be coordinating the centralized training program nationally and supporting the trainees from the recipients of the grant at UCSF, Massachusetts General Hospital, and Yale University. The grant will fund a fellow every year at each site for two years. By the end of the program, we hope to have trained a group of fellows dedicated to hemorrhagic stroke.

The training center is taking a patient-centric outcome approach because it's important to include patients and caregivers and looking into outcomes that matter. Many hemorrhagic stroke patients don't survive, but if they do, they end up with a disability, so a good outcome is subjective when it comes to patients, their families, and researchers.

One of the key things in our proposal is to introduce young researchers to advocacy groups, families, and patients. Scientists need to understand that the questions they are asking in the lab can make things better for their patients and families. Basic research scientists rarely see the impact on patients and families, so hopefully that makes them more motivated to help the patients get better.

Can you elaborate more on the center's commitment to diversity and how it aligns with the American Heart Association (AHA) diversity initiative to recruit research fellows from diverse backgrounds?

The AHA has made a real intention of commitment to diversity in women and minorities underrepresented in medicine and science. If we want to make more significant contributions in the field, then we need more thought leaders with a diversity of thinking. Bringing in a non-traditional group of researchers from different fields in science together may make for a richer pool of questions and new skillsets to the table.

What's unique about this grant is that the AHA wants people who aren't your traditional MD or PhD scientists. We want to bring in epidemiologists, radiologists, public health experts, qualitative scientists, and population health scientists at the national level who can generate innovative questions, collaborations, and discoveries. The centralized training center will be more collaborative with a rich community of researchers with diverse scientific backgrounds.

What is your hope for the training center?

We hope to create the next generation of hemorrhagic stroke scientists who can take the field forward as a legacy. Beyond the five-year grant, there will be an established collaborative network who continues the team science centered around hemorrhagic stroke. While it's equally important to support [Dr. Heather Fullerton and her team's research in pediatric hemorrhagic stroke](#), it's also about investing in the future.