



HEALTH



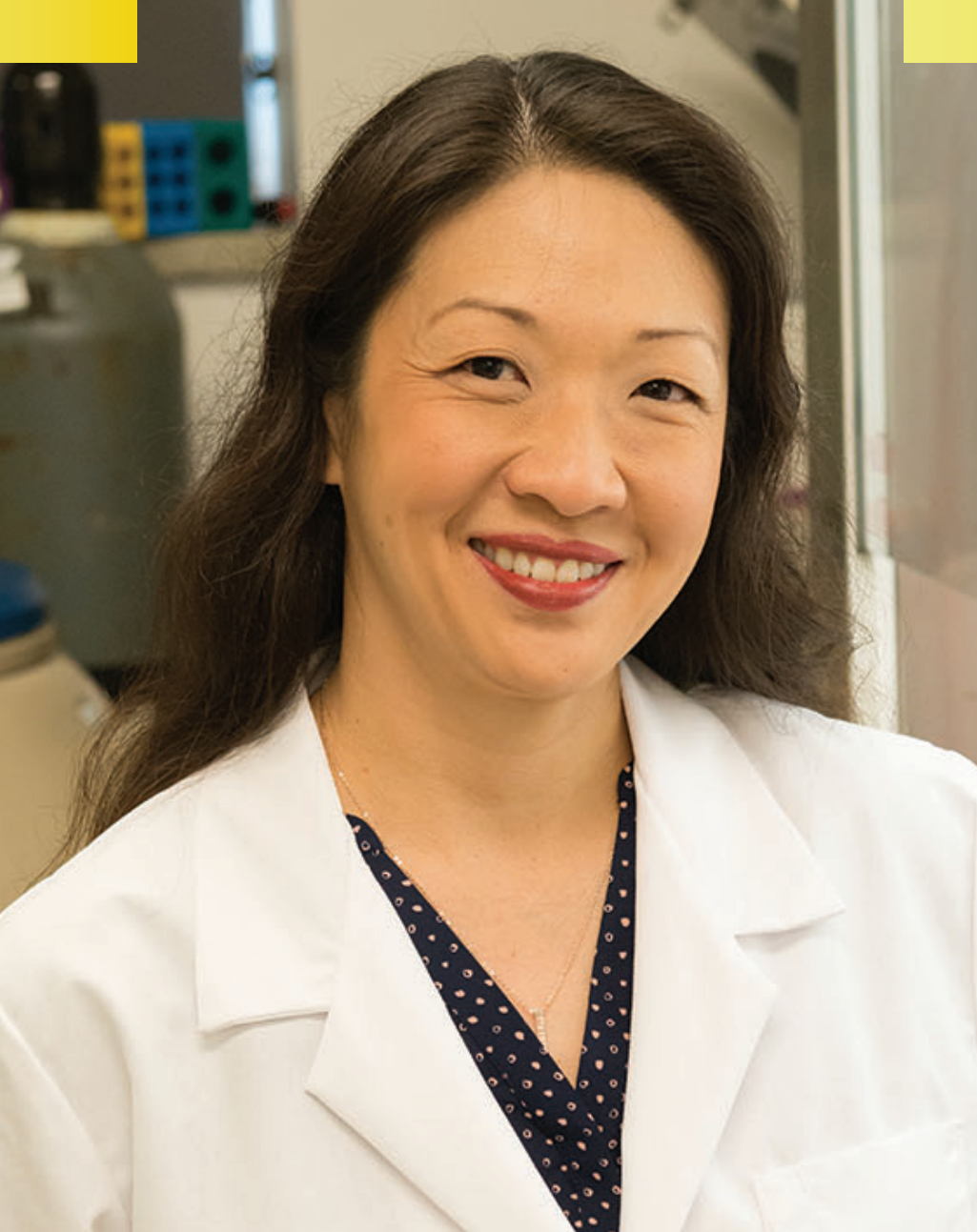
BRAIN



JENNY HSIEH

JENNY HSIEH IS THE SEMMES FOUNDATION CHAIR IN CELL BIOLOGY AND THE DIRECTOR OF THE UTSA BRAIN HEALTH CONSORTIUM. A NATIONALLY RECOGNIZED RESEARCHER, HSIEH'S WORK FOCUSES ON HOW TO MAKE NEWBORN NEURONS SO A BRAIN AFFECTED BY DISEASE OR INJURY CAN REPLACE ITS OWN DAMAGED CELLS AND HEAL. SHE TACKLES THE CHALLENGE USING MOLECULAR AND GENETIC TOOLS AND IS FOCUSED ON UNDERSTANDING THE FACTORS THAT CONTROL THE BRAIN'S STEM CELLS SO SHE CAN MANIPULATED AND STIMULATE NEW GROWTH.

—by Joanna Carver



AS DIRECTOR OF THE BRAIN HEALTH CONSORTIUM, HSIEH IS EXPANDING UTSA'S WORK IN PLURIPOTENT STEM CELL RESEARCH AND PERSONALIZED MEDICINE TO DEVELOP NEW AND INNOVATIVE APPROACHES TO NEURODEGENERATIVE DISEASE. SHE ALSO PLANS TO ESTABLISH A NEW HUMAN STEM CELL CORE FACILITY AT UTSA TO ENCOURAGE INTERDISCIPLINARY COLLABORATION, AMONG MANY OTHER EFFORTS TO SUPPORT INNOVATION IN BRAIN HEALTH RESEARCH.

WHAT IMPACT DO YOU HOPE YOUR RESEARCH WILL HAVE?

We hope our research in brain function will impact the lives of patient populations as well as the general public. Our research studies how the brain works and how the brain may change with different genetic disorders, health conditions and the basic human experience of living. Specifically, we hope to increase our understanding of the mechanisms that cause brain disorders, such as childhood epilepsy. By studying these ideas in our laboratory, we can translate basic discoveries into cures and preventative strategies to help improve the lives of people living with different disorders.

WHAT WOULD YOU SAY TO A STUDENT WHO IS INTERESTED IN ENTERING YOUR FIELD?

My best advice for someone who is entering this field is to identify the most important problem in the field and to not be afraid of taking risks. Don't do something because everything else is doing it. Do something truly new. A career in scientific discovery requires a curious, creative mind, and I would encourage new scientists to embrace and trust this creativity.

WHAT DO YOU THINK THE BIGGEST CHALLENGE RESEARCHERS IN YOUR FIELD ARE FACING?

The most talked about challenges are funding concerns, and issues with rigor and reproducibility in science. What is less talked about is that science is poorly communicated. To improve science communication, being able to explain your work to a non-scientific audience is just as important as publishing in a peer-reviewed journal. But this skill is under-rewarded in the current system. Another challenge is the incredibly stressful life of a Ph.D. or postdoc. I believe we need to focus on supporting a work/life balance to cultivate successes in the laboratory. For example, family leave policies and child care solutions can help support the next generation of researchers.

WHAT IS THE MOST IMPORTANT THING GOING ON IN YOUR FIELD THAT NO ONE IS TALKING ABOUT?

One idea that isn't discussed too often is the regulations and laws behind research with human subjects. Right now, Congress is working to change these laws in the favor of scientists to decrease administrative burdens for collecting patient information and patient samples, which I believe would increase research activity.

Specifically, the regulations for biobanks of human biospecimens is under review. If this is approved, patients would be able to donate their information and biosamples to large research systems and biobanks in a more streamlined, highly ethical way. We will see if these new regulations go into effect in January of next year.