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Mentoring Makes A Difference

To young researchers, it's an old story—you can't get funding until you have some data, but you can't get data until you have funding. For Phyllis Hanson, the solution came in the form of a pilot research award through HHMI's Biomedical Research Support Program, seed money that enabled her to pursue her groundbreaking work in neurobiology.

Hanson is an assistant professor in the department of Cell Biology and Physiology at Washington University in St. Louis. "The \$45,000 from HHMI helped me hire an outstanding research assistant and set up the equipment we needed to carry out our work looking at the functions of proteins involved in synaptic membrane trafficking," she says.

With seed money from HHMI, Hanson found it easier to gain additional support from government agencies and philanthropies. Last year, she became one of only five scientists in the country to win a major award from the W. M. Keck Foundation's new Distinguished Young Scholars in Medical Research Program. Under the program, Washington University will receive up to \$1 million over 5 years to support Hanson's research in protein-protein and protein-membrane interactions at neuronal synapses. According to the Keck Foundation, Hanson's work "has the potential to lead to an understanding of the molecular processes responsible for synaptic functioning, and ultimately, how neuronal changes may impact the processes of learning, disease development, and therapeutic interventions."

The HHMI grants program from which Hanson received pilot funds made its first awards in 1996; it provides medical schools with flexible support to develop core resources for research and to help newly established science faculty, including physician-scientists, develop their careers. Medical schools often use the HHMI awards to support junior faculty who may have difficulty obtaining funds from other sources because they are still relatively new and not yet established researchers. A second round of Biomedical Research Support awards totaling \$92 million will go to 41 U.S. medical schools, beginning this year.

While the grant money has been a boon, Hanson says that a string of supportive mentors has also been important to her career. Early on, her father, an experimental physicist whom she calls the "ultimate tinkerer," fostered a sense of curiosity about how things work and encouraged her interests in music and swimming as well as in science. She also found numerous supportive scientists at Yale University, where she earned an undergraduate degree in molecular biophysics and biochemistry and later returned for postdoctoral training, and at Stanford University, where she earned her M.D./Ph.D. "The people I've worked with at every stage have been inspiring, with unique and positive approaches to their science," she says.

In 1997 Hanson joined the faculty of Washington University's School of Medicine, an environment that she calls stimulating and supportive. Now that she heads her own laboratory, Hanson has assumed the role of mentor, helping others conduct experiments and answering their questions. Her new life requires considerable juggling to balance her family life, which includes caring for her toddler daughter, with establishing her laboratory, giving lectures in cell biology and neurobiology courses, and supervising graduate students.

Hanson is undaunted by the challenges, however. "It's just a question of having a positive attitude," she says. "Keeping a positive attitude is most important at every stage of one's career. Ultimately, if you believe things will work, they will."