

**Researcher Highlight: Henriette van Praag, Ph.D.**

This month, the college interviewed **Henriette van Praag, Ph.D.**, associate professor of biomedical science at the Schmidt College of Medicine and an investigator in the FAU Brain Institute. Her research laboratory is located on the MacArthur Campus in Jupiter.

Dr. van Praag has always been interested in the medical sciences. "I studied psychology as an undergraduate and most of my classmates wanted to become therapists but I didn't feel suited for that," she explained. Her interest in psychology led to the pursuit of a Ph.D. in Neuroscience at Tel-Aviv University in Israel.

Dr. van Praag's research focuses on the brain and behavior. She examines plasticity in the brain and aims to understand the effects of exercise on memory function and behavior across the lifespan. The van Praag laboratory studies exercise-induced elaboration and function of new neurons in the hippocampus, an area essential for learning and memory. The lab examines how new neurons are generated, their function, and relevance for learning and memory. Dr. van Praag is also interested in finding out how new neurons connect to different parts of the brain and if peripheral factors (ex: myokines derived from muscle) in the body contribute to brain function.

Dr. van Praag recently received funding from the Florida Department of Health's Ed and Ethel Moore Alzheimer's Disease Research Program for her project titled, "The Role of Exercise-induced Systemic Factors in Alzheimer's Disease."

When asked about her favorite part of being a researcher, Dr. van Praag said she loves the diversity of challenges involved. There are many aspects of research that she enjoys; being at the bench doing experiments, being the first to find out something exciting and trying to understand what it means, and pushing the envelope of human knowledge forward by having a sense of curiosity. One of the biggest challenges of conducting research is coming up with a good question, then dealing with what does and doesn't work, making adjustments and keeping up that drive and motivation to find the answer.

For students who wish to become medical researchers, Dr. van Praag offers the following advice, "Prepare for hard days and pursue a career in research only if you are really enthusiastic about it. If you are looking for fame or wealth, that is not the right mind set for a career in science. You have to feel that what you are doing on a day to day basis is worthwhile."

Future directions for the van Praag lab include studying muscle-derived factors and how they influence brain function, and obtaining a basic understanding of cellular mechanisms of exercise on the brain. The lab is also looking to learn more about the circuitry of new neurons, where they get their information from and how an exercise-induced increase in number modifies the network.