



SHARPhub Story #1

Dr. Anne Kasus-Jacobi
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“SHARPhub gives us the freedom to focus on our work, knowing that we can find the answers we need to move forward.”

One of Dr. Kasus-Jacobi's primary focuses in her research lab is uncovering a molecular mechanism that certain defense proteins produced by white blood cells employ to control neuro inflammation, and then use it to slow the progression of Alzheimer's disease.

“Researchers have been trying to develop drugs for this disease for the last 20 years, without success,” said Kasus-Jacobi. *“Clinical trials would work in animal models, but not in humans.”*

But Dr. Kasus-Jacobi, in collaboration with Dr. Anne Pereira, a professor at the Department of Pharmaceutical Sciences at University of Oklahoma Health Sciences Center, discovered that the antimicrobial and defense mediator CAP37 *could play a significant role in ameliorating diseases linked to aging and chronic inflammation*. Since this discovery, they have shown increased expression of CAP37 in the neurons of Alzheimer's patients.

Dr. Kasus-Jacobi's laboratory is currently exploring structural aspects of CAP37's effects on RAGE and amyloid beta, two important players in Alzheimers disease, to develop peptide therapeutics derived from CAP37 and from other defense proteins. To ensure they have the resources to bring the research to fruition, they have applied for a patent to protect the idea and applied for funding.

Dr. Kasus-Jacobi's relationship with SHARPhub (Sustainable Heartland Accelerator Regional Partnership) has provided her team's efforts with guidance to help them navigate the path to secure SBIR/STTR funding to help them move forward as Dr. Kasus-Jacobi's is utilizing the Mentoring, Assessment, and Planning (MAP) program; a program offered to SHARPhub companies.

“Research is hard enough,” said Kasus-Jacobi. “Having SHARPhub mentor us through the process and show us how to avoid the pitfalls has been invaluable.”

According to Kasus-Jacobi, SHARPhub mentoring also led them to ways of finding matching funds as well as answers that provided more confidence to recognize and attend to the details of creating a commercial vehicle that could deliver their discovery to patients.

Attempting to move a research idea forward so it can be proven and then delivered to those who truly need it is fundamentally difficult. Researchers know how to establish testing parameters and analyze results, but they aren’t necessarily prepared to advocate for continuing funding or creating and managing a business. That is where SHARPhub can help. Dr. Kasus-Jacobi was accepted to 2021 Spring Midwest Biomedical Accelerator Consortium (MBArc) and as part of this program, she would have the opportunity to take advantage of additional resources (human and capital) to advance her research into a commercially viable product.

“I’m leading a small but very smart team,” said Kasus-Jacobi. “But none of us really understood just how complicated the next steps would be. SHARPhub provided us with a much clearer path.”