

News Release

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Texas Tech University Health Sciences Center Professor Named to National Academy of Inventors

The National Academy of Inventors (NAI) has named Texas Tech University Health Sciences Center (TTUHSC) Professor Samuel Prien, Ph.D., to the inaugural class of 66 NAI Senior Members. The election of the inaugural class coincides with National Inventors' Day, which this year marks what would have been Thomas Edison's 172nd birthday and celebrates innovators and their contributions to society.

This inaugural class represents 37 NAI Member Institutions, including research universities and governmental and non-profit research institutes. They are named inventors on over 1,100 issued U.S. patents.

Senior members are active faculty, scientists and administrators at NAI Member Institutions with success in patents, licensing and commercialization. They have produced technologies that have brought, or aspire to bring, real impact on the welfare of society.

Prien has joint appointments at the TTUHSC School of Medicine and the College of Agricultural Sciences and Natural Resources at Texas Tech University (TTU). His first U.S. patent was awarded March 8, 2015, for a method of collecting and preserving semen that was the university's first patent focused on reproductive science. Additionally, he currently holds four U.S. patents, 20 international patents and three copyrights, with others pending. Many of these patents have been licensed and are progressing toward commercialization.

"Dr. Prien's dedication and accomplishments in the field of reproductive science make him an exceptional ideal for the NAI Senior Member," said Quentin Smith, Ph.D., senior vice president for research at TTUHSC. "His work with reproductive technology not only will impact the field but also bring hope to countless families."

One in ten couples worldwide have infertility problems, and approximately two million couples actively seek treatment.

Prien developed a device to improve the quality of semen used in fertility treatments. The ProTex patented technology encompasses the method of collecting sperm, as well as the container into which the sperm are collected.

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In traditional collection methods, sperm cells are often “shocked” by pH or temperature changes. Prien’s patented device features a more stable environment for the sperm with controlled pH levels, temperature and a collection of nutrients, creating an environment for the sperm cells that is similar to a male’s body. A better quality of sperm cells will be beneficial for both medical and veterinary purposes.

“Dr. Prien’s inventions have advanced the practice of animal reproduction technology, to the profound improvement of ranching and farming throughout the world,” said TTU’s President’s Distinguished Chair in Physics Robert Duncan, Ph.D.

Prien is a board certified high-complexity clinical laboratory director and is certified in both clinical andrology and embryology. He directly works with the medical team to assist in the treatment of infertility patients as part of the assisted reproductive technology program. In addition to his clinical duties, he is a teaching professor on each campus and is an active researcher.

Prien conducts diverse physiology-based research in both animals and humans. He has received numerous grants, has published more than 90 journal articles and has made approximately 300 presentations at regional, national and international meetings. Prien serves as a peer reviewer for several professional organizations for both grants and publications.

Senior Members also foster a spirit of innovation within their communities through enhancing an inventive atmosphere at their institutions, while educating and mentoring the next generation of inventors.

Over the years, Prien has mentored students at all levels from high school, undergraduate, graduate and medical students, as well as residents and postdoctoral researchers. These students have received over 80 awards of recognition for their work, at the local, regional and national levels, and many have gone on to research careers.