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Effort to Build Artificial Testicle Awarded NIH Grant

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Proposal to make human sperm from stem cells receives government funding

Newswise — SAN FRANCISCO, CA. January 9, 2012. Dr. Paul Turek, Director and Founder of The Turek Clinic, a men's health medical practice, and Dr. Constance John, chief executive of MandalMed, Inc, a San Francisco-based biotech company, were recently awarded a Small Business Innovation Research (SBIR) grant from the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health (NIH) to construct an artificial human testicle and research how sperm are made from stem cells.

"Fertile sperm can be made from various stem cells in mice, but making human sperm from these same sources has been elusive," says Turek, a practicing male infertility specialist in San Francisco. In this project, they will try to produce mature human sperm in a live laboratory model of a human testicle.

This work extends on previously published research by Dr. Turek on human testicular stem cells, the forerunners of sperm. Dr. John is an expert on human Sertoli cells, which critically nurture sperm as they develop in the testicle. "This grant is quite an honor and comes after several years working together on this idea," notes Turek. "We have assembled a great group of scientists who are very committed to its success."

A functioning artificial testicle has important implications for the field of reproductive biology. It could shed enormous light on the intricate details behind the mysterious and complicated process of spermatogenesis or sperm production. Even further, it could be used to later develop patient-specific, fertile sperm for men who simply do not make sperm due to genetic or acquired causes.

About Paul Turek, MD

Paul Turek, MD is founder of The Turek Clinic and a former professor and endowed chair at the University of California San Francisco. As a men's reproductive health expert, he has pioneered innovative techniques for treating male infertility, including Testicular Mapping. In addition to his appointment to the Cooperative Reproductive Network Advisory Board, Dr. Turek sits on the Advisory Board for the Men's Health Network, Fertile Hope and is President-Elect of the Society of Male Reproduction and Urology. He is Chief Medical Officer at MandalMed, Inc, and is also Past-President of the American Society of Andrology and of the Northern California Urology Society and is an Editorial Board member of several journals including *Systems Biology in Reproductive Medicine*, the *Asian Journal of Andrology* and the *International Brazilian Journal of Urology*.

About The Turek Clinic

The Turek Clinic, founded in 2008, is a men's reproductive health practice specializing in male infertility, vasectomy, vasectomy reversal, varicocele repair and other minimally invasive procedures using innovative and cutting-edge techniques. For more information, visit www.TheTurekClinic.com or Dr. Turek's blog at http://www.TurekOnMensHealth.com/.



About MandalMed, Inc.

MandalMed is a privately held biotechnology company located in San Francisco- the home of more bioscience companies than any other region in the world. MandalMed's mission is to develop pharmaceutical products of worldwide significance. Areas where there is a great need for better treatments, including cancer and neurological conditions, are the targets of MandalMed's research and development programs. For more information, see www.MandalMed.com