



## PROFESSOR OF JAMES R. HORNSBY FAMILY CHAIR OF BIOMEDICAL SCIENCE NAMED

Samuel A. Wickline, MD, has been named the inaugural James R. Hornsby Family Professor of Biomedical Sciences at Washington University School of Medicine in St. Louis.

Wickline, a physician, scientist and nanotechnology innovator, was installed June 20, 2013.

“This professorship is an extension of Mr. Hornsby’s community focus and reflects his entrepreneurial spirit and broad range of interests,” said Washington University Chancellor Mark S. Wrighton. “Washington University is grateful for his vision and support. Like Mr. Hornsby, Sam Wickline is an innovator, and this generous gift supports his efforts to conduct research that will bring benefit to many.”

Wickline was installed by Larry J. Shapiro, MD, executive vice chancellor for medical affairs and dean of the School of Medicine. “Mr. Hornsby’s commitment to advancing medical research through technology, entrepreneurial efforts and multidisciplinary sciences to benefit humanity is epitomized by the inaugural holder of the professorship, Sam Wickline,” Shapiro said.

Russell Hornsby has been a groundbreaking entrepreneur for more than 35 years. He has influenced innovation in household, lawn and garden, and medicinal products as well as in the toy industry, within which he built one of the largest privately held toy companies in North America.

Hornsby was chief executive officer and owner of the toy company Trendmasters Inc., which was sold to Jakks Pacific in 2001. In 2002, he founded Cepia, LLC, and in 2009, the company introduced its toy phenomenon, ZhuZhu Pets®. The ZhuZhu Pets brand has been named Toy of the Year seven times in five countries and also earned a place on Time magazine’s “All-TIME 100 Greatest Toys” list.

Hornsby received the Excellence in Toy Design award in 2010 from the Chicago Toy and Game Group, and Ernst & Young named him one of its regional Entrepreneurs of the Year in 2010.

Several nonprofit causes have benefited from gifts from the Hornsby Family Foundation, including St. Louis Children's Hospital, The Magic House and The National Children's Cancer Society.

Wickline joined the faculty of Washington University School of Medicine's Cardiovascular Division in 1987, later becoming director of the cardiovascular division at Jewish Hospital and co-director of the cardiovascular division at Barnes-Jewish Hospital. He initiated the medical school's first clinical program in stress echocardiography and developed one of the first cardiac MRI training and research programs in the United States.

He also helped establish the graduate program in biomedical engineering and initiated the university's first graduate degree-granting program in cardiovascular biomedical engineering. The author of more than 250 research papers, Wickline holds more than 30 issued or filed U.S. patent applications.

A great deal of Wickline's work involves the translational advancement of nanotechnology in medicine. Nanotechnology, the manipulation of matter at the atomic and molecular level to create new properties, has enormous potential in medical diagnostics, drug delivery, gene therapy and other areas of research.

Wickline and colleagues have designed nanoparticles, tiny spheres designed to travel through the bloodstream, that are capable of seeking out specific cell types and delivering a variety of payloads to monitor cell activity, illuminate tumors or deliver therapeutic drugs exactly where they are needed. In 2005, with funding from the National Cancer Institute, he established the university's Siteman Center of Cancer Nanotechnology Excellence.

Wickline and his colleagues have created nanoparticles that can home in on and deliver labels to the small blood vessels that form in the early stages of atherosclerosis – a technique that can enable early detection with MRI imaging.

Recently, Wickline and colleagues developed nanoparticles that carry a toxin found in bee venom, which can destroy human immunodeficiency virus (HIV), the virus that causes AIDS, while leaving surrounding cells unharmed.

Wickline leads the Washington University "Consortium for Translational Research in Advanced Imaging and Nanomedicine" (C-TRAIN) at the St. Louis CORTEX Center, which works with corporate and academic partners to develop broad-based clinical applications for nanotechnology. He is one of the founders of the St. Louis Institute of Nanomedicine, a consortium of academic and commercial partners focused on enhancing regional infrastructure for the translational advancement of nanotechnology in medicine.

Wickline also has co-founded four biotech startup companies in St. Louis: Kereos, Inc., a nanotechnology company committed to molecular imaging and targeted therapeutics; PixelEXX Systems, Inc., which makes semiconductor nanoarrays for molecular diagnostics and microscopy; AcuPlaq, LLC, which develops nanoparticle-based anticlotting systems to treat acute heart attacks and strokes; and Entropy Vision, LLC, which develops new software and hardware solutions to improve medical and industrial imaging and detection platforms.

“This endowment acknowledges the growing significance of entrepreneurship at Washington University and in the St. Louis region,” Wickline said. “The work we do requires a team effort, and we are all grateful to see it recognized through Mr. Hornsby’s generous support.”