

Marissa Nichole Rylander, Recognized By Influential Women, Advances Biomedical Engineering Research

AUSTIN, TX, UNITED STATES, June 22, 2026 /EINPresswire.com/ -- Advancing Cancer Engineering, Tissue-on-a-Chip Innovation, and Mentorship in Biomedical Research

Marissa Nichole Rylander is a distinguished professor and biomedical engineering researcher at The University of Texas at Austin, where she has built a career centered on innovation, teaching, and mentorship. Recently promoted to Full Professor, she has established herself as a leader in cancer engineering and tissue-on-a-chip technologies, advancing research that bridges engineering, biology, and clinical application to improve outcomes in human disease.



Dr. Rylander earned her PhD in Biomedical Engineering from The University of Texas at Austin in 2006 and later returned to her alma mater in 2014 after serving on the faculty at Virginia Tech. Her promotion to Full Professor reflects years of sustained contributions to research excellence, student mentorship, and academic leadership within one of the nation's top engineering programs.

Her research program focuses on developing human-based tumor platforms that more accurately replicate real tumor environments for therapeutic testing and disease modeling. By integrating mechanical engineering principles, biomedical engineering, and computational methods, she works to close the gap between laboratory discovery and clinical translation. Her lab's work spans inflammatory breast cancer, liver cancer, and vascularized skin models for burn injury, supported by funding from the National Institutes of Health, the National Science Foundation, and the U.S. Army.

Beyond her research contributions, Dr. Rylander is deeply committed to education and expanding access within engineering. She leads the ElevateMe program, an initiative designed to recruit, support, and retain high-achieving students, with a strong emphasis on women and underrepresented minorities in engineering. Through teaching, mentorship, and service, she continues to shape the next generation of scientists and engineers while managing the demands of large undergraduate courses, graduate instruction, and high-impact research.

Dr. Rylander attributes her success to determination and passion. She emphasizes that meaningful achievement requires both persistence and a willingness to consistently give one's best effort. Born legally blind with significant visual disabilities, she was supported throughout her life by her mother, who served as her strongest advocate and source of encouragement.

Rather than viewing challenges as limitations, Dr. Rylander has consistently approached them as opportunities for growth. When confronted with doubt or discouragement, she found motivation in proving what was possible and forging her own path forward. She believes that her journey demonstrates how passion, perseverance, and strong family support can enable individuals to overcome barriers and achieve their goals.

The best career advice Dr. Rylander received was simple yet lasting: never give up. From an early age, she was encouraged by mentors and professionals who nurtured her curiosity rather than limiting it. As a child, exposure to medical environments due to her sister's health condition introduced her to science and healthcare through books, volunteering, and hands-on learning experiences. These early opportunities, combined with her mother's unwavering support, played a foundational role in shaping her academic trajectory and long-term career direction.

Dr. Rylander encourages young women entering engineering and scientific fields to remain committed to their goals while staying open to evolving paths. She advises balancing long-term life planning with flexibility, cautioning against limiting decisions too early in one's journey. She strongly emphasizes the importance of saying yes to opportunities, especially in early career stages, and of stepping into challenges even when confidence feels uncertain.

She believes that growth is often found in discomfort and that the most transformative experiences come from taking risks, exploring new environments, and embracing learning opportunities. In her view, confidence is built through action, not hesitation.

One of the most pressing challenges Dr. Rylander identifies in her field is the lack of visible role models for young women in engineering and science, which can make it difficult for students to envision themselves in these careers. She also notes that confidence often declines during middle school years, making early exposure to mentorship and representation especially critical. In addition, she highlights the increasing competitiveness of academic pathways, where students must go beyond strong grades to build diverse, meaningful experiences that demonstrate initiative and commitment.

At the same time, Dr. Rylander sees significant opportunity in mentorship, representation, and more flexible academic and professional pathways that allow individuals to balance career development with personal and family life. She believes intentional support systems are essential for sustaining progress and expanding participation in engineering fields.

Her values center on character, kindness, passion, and service. She believes that strong character shapes how individuals contribute to the world, while kindness ensures those contributions positively impact others. Service is a guiding principle in her life, inspired in part by the Virginia Tech motto "Ut Prosim," meaning "That I May Serve." This philosophy continues to influence her approach to research, teaching, and mentorship.

Faith and gratitude also play an important role in her life, shaping her resilience and perspective. Dr. Rylander views life as both challenging and profoundly meaningful, and she approaches each day with a sense of purpose and appreciation for the opportunity to contribute to science, education, and the lives of others.

Through her work at The University of Texas at Austin, Marissa Nichole Rylander continues to advance biomedical engineering research while empowering future generations of scientists, demonstrating the impact of combining scientific innovation with mentorship, service, and perseverance.

Learn More about Marissa Nichole Rylander:

Through her Influential Women profile, <https://influentialwomen.com/connect/marissa-rylander>, or through her profile on The University of Texas at Austin, <https://www.me.utexas.edu/people/faculty-directory/rylandermn>

Influential Women

Influential Women provides a platform where women from all backgrounds can connect, share their perspectives, and create content that empowers themselves and others. Through storytelling, thought leadership, and creative expression, Influential Women amplifies voices that inspire change.

Editorial Team
Influential Women
[email us here](#)

This press release can be viewed online at: <https://www.einpresswire.com/article/921307860>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire,

Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2026 Newsmatics Inc. All Right Reserved.