

Bio, short:**Amina Ann Qutub, PhD**

Amina Ann Qutub is the Burzik Professor of Engineering Design and Associate Professor of Biomedical Engineering at the University of Texas, San Antonio. She serves as the Assistant Director of Strategic Alliances and a research thrust lead for the Augmenting Human Performance thrust in the MATRIX Artificial Intelligence Consortium. Dr. Qutub is also the Director of the UTSA – UT Health San Antonio Graduate Group in Biomedical Engineering and a co-lead of the Center for Precision Medicine. The Qutub Lab pioneers methods at the interface of computer science, biology and engineering to study the design of human cells, and help eradicate diseases affecting cells of the brain and vasculature. Dr. Qutub serves on the U.S. National Academies Committees for Advances and National Security Implications of Transdisciplinary Biotechnology and Transformative Science and Technology for the Department of Defense. Dr. Qutub is an AIMBE Fellow, National Academies Keck Future Initiatives Awardee and NSF CAREER Awardee. She received her PhD in Bioengineering from University of California, Berkeley and UCSF, and completed a postdoctoral fellowship in Biomedical Engineering at The Johns Hopkins University, School of Medicine.

Bio, long:**Amina Ann Qutub, PhD**

Amina Ann Qutub is the Burzik Professor of Engineering Design and Associate Professor of Biomedical Engineering at the University of Texas, San Antonio. She serves as the Assistant Director of Strategic Alliances for the MATRIX AI Consortium and a research thrust lead for the Augmenting Human Performance thrust. Dr. Qutub is also the Director of the UTSA – UT Health San Antonio Graduate Group in Biomedical Engineering and co-lead of the Center for Precision Medicine. Dr. Qutub is pioneering methods at the interface of computer science, biology and engineering to study the design of human cells, and help eradicate diseases affecting cells of the brain and vasculature. In new translational work, Dr. Qutub is co-lead (with Drs. Brian Eastridge, MD, UTHSCSA and Alan Cook, MD, UT Tyler) of the iRemedyACT project to develop AI tools that can minimize time to treatment and optimize care for trauma patients. Bridging basic science to translational impact, she directs the Quantu Project, a nationwide study to optimize brain health over a lifespan using an integration of biosensing technology, AI and experimental neurogenesis bioassays. Her lab develops engineered model systems of brain regions that response to sensory stimulation. Dr. Qutub also has served as a computational lead for the international Leukemia Protein Atlases with UT MDACC and Texas Children's Hospital, a clinical and engineering collaboration to identify new therapeutic targets for pediatric and adult leukemias.

Dr. Qutub received her PhD in Bioengineering from Berkeley and UCSF, with a major in mathematical modeling and minor in neurology, and her B.S. from Rice University in Chemical Engineering. She completed her postdoc as a National Institute of Health NRSA fellow in Biomedical Engineering at Johns Hopkins University, School of Medicine. Dr. Qutub is an AIMBE Fellow, National Academies Keck Future Initiatives Awardee and NSF CAREER Awardee. Dr. Qutub is a member of the National Academies of Science, Engineering and Medicine Standing Committee on Advances and National Security Implications of Transdisciplinary Biotechnology and the National Academies Standing Committee for Transformative Science and Technology for the Department of Defense. She co-chaired the 2024 NASEM Artificial Intelligence and Automated Laboratories for Biotechnology workshop and 2024 NASEM Transformative

Science and Technology for Assessing and Strengthening Individual-to-Population Resilience under Societal and Environmental Stress workshop. She also is a co-founder of a biotech startup PaloBio, Inc, and frequent keynote speaker in precision health events including Health Cell State of the Industry and TEDx. Beyond research, Dr. Qutub is a strong advocate for open access to neurotechnology and biotechnology innovations.