

# ACADEMIC CONNECTIONS

THOUGHTS AND UPDATES FROM DR. W. P. ANDREW LEE

September 1, 2021

Dear Colleagues,

I am delighted to announce the appointment of **Samuel Achilefu, Ph.D.**, as the Inaugural Chair of the new UT Southwestern Department of Biomedical Engineering, effective January 2022. He will hold the Ronald W. Estabrook, Ph.D. Distinguished University Chair in Biomedical Science.

Dr. Achilefu joins us from the Mallinckrodt Institute of Radiology at Washington University School of Medicine in St. Louis, where he served as the Michel M. Ter-Pogossian Professor of Radiology as well as a Professor of Medicine, Biomedical Engineering, and Biochemistry & Molecular Biophysics. He was Chief of the Optical Radiology Laboratory, Vice Chair for Innovation and Entrepreneurship at the Mallinckrodt Institute of Radiology, and co-leader of the Oncologic Imaging Program of the Siteman Cancer Center. He also served as Director for the Washington University Molecular Imaging Center and the Center for Multiple Myeloma Nanotherapy.



After completing his graduate education in chemistry and materials science from the University of Nancy in France, he pursued postdoctoral training in oxygen transport in biological systems and hematological science at Oxford University in the United Kingdom.

An expert in molecular imaging and its application in treating human diseases, Dr. Achilefu's research interests include image-guided cancer surgery, portable imaging devices, and nanotechnology. He pioneered the design and use of innovative fluorescent materials for cancer imaging. His seminal work in this field of study resulted in the clinical translation of a method to identify and treat most cancer types, especially breast tumors. An inventor of 65 U.S. patents, he developed a wearable cancer-imaging goggle system that highlights cancer cells, providing real-time guidance to surgeons in the operating room to ensure the complete removal of cancerous tissue.

With over 300 published scientific papers, Dr. Achilefu has contributed an impressive body of research in multiple fields of biomedical engineering. He serves on the editorial boards of multiple scientific journals, including *Scientific Reports*, *Tomography*, and *Journal of Biomedical Optics*, and is editor-in-chief of *Current Analytical Chemistry*.

Dr. Achilefu is a Fellow of the National Academy of Inventors, the Royal Society of Medicine, the International Society for Optics and Photonics Engineers-SPIE, the American Association for the Advancement of Science, the American Institute for Medical and Biological Engineering, the Royal Society of Chemistry, and The Optical Society of America. In 2020, he was appointed by the U.S. Secretary of Health and Human Services to serve on the National Advisory Council for Biomedical Imaging and Bioengineering.

Dr. Achilefu's contributions to the field have been recognized with national and international awards, such as the Distinguished Investigator Award from the Department of Defense Breast Cancer Research Program, The Academy for Radiology & Biomedical Imaging Research, and the Britton Chance Biomedical Optics Award from the International Society for Optics and Photonics Engineers-SPIE.

I would like to express my deep appreciation to Dr. Andrew Zinn for his service as Chair of the Search Committee, and to all the Search Committee members – Dr. Gaudenz Danuser, Dr. Yasin Dhaher, Dr. Jinming Gao, Dr. Anke Henning, Dr. Joseph Maldjian, Dr. Craig Malloy, Dr. Joseph Pancrazio, Dr. W. Matthew Petroll, Dr. Margaret Phillips, and Dr. David Russell – for the dedication and insights they brought to this comprehensive international search.

Significant efforts in biomedical engineering are already underway on campus across multiple disciplines, including the existing UT Southwestern-UT Dallas Biomedical Engineering Graduate Program and joint research projects therein. With the strong support of Presidents Daniel K. Podolsky, M.D., and Richard Benson, Ph.D., the UT Southwestern-UT Dallas collaboration is expanding to leverage the two institutions' traditional strengths in biomedical and engineering sciences to accelerate the translation of these advances into the clinic. The new UT Southwestern Department of Biomedical Engineering will further advance this goal. It will be housed in the new Biomedical Engineering and Sciences Building on the UT Southwestern East Campus, a joint venture with UT Dallas that is slated for completion in 2023.

With his demonstrated success in innovative research and clinical impact, Dr. Achilefu brings the leadership and vision needed to launch our newest department to foster transformational research in biomedical engineering and related fields at UT Southwestern.

Please join me in welcoming Dr. Achilefu to Dallas and UT Southwestern.



Sincerely,

A handwritten signature in cursive script that reads "Andy".

W. P. Andrew Lee, M.D.

Executive Vice President for Academic Affairs and Provost  
Dean, UT Southwestern Medical School