



Elana J. Fertig, PhD, Appointed Associate Director for Quantitative Science at UMGCCC

The Director of the Institute for Genome Sciences at the University of Maryland School of Medicine is the first person to hold this role

The University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center (UMGCCC) Executive Director, Taofeek K. Owonikoko, MD, PhD, is pleased to announce the appointment of Elana J. Fertig, PhD, FAIMBE, as Associate Director for Quantitative Science at UMGCCC. She began in her role as Director of the University of Maryland School of Medicine (UMSOM) Institute for Genome Sciences (IGS) in December 2024 and is also a Professor in the Division of Hematology/Oncology at UMSOM. Dr. Fertig is internationally recognized for her work in integrating spatial multiomics technologies with mathematical models to develop new ways to predict cancer progression and therapeutic selection.



Dr. Fertig will work with UMGCCC faculty to develop a strategic vision to advance data science research in the fields of genomics, proteomics, and epigenomics, as well as using single-cell and spatial technologies, to impact cancer research in collaboration with IGS, UMGCCC, and the University of Maryland Institute for Health Computing (IHC).

Dr. Owonikoko led the search committee that named Dr. Fertig as the choice to lead IGS in August. She previously served as a Professor of Oncology at the Johns Hopkins University with dual appointments in the Department of Applied Mathematics and Statistics and the Department of Biomedical Engineering. She also served as the Co-Director of the Single Cell Consortium at the Johns Hopkins University School of Medicine, as well as the Co-Director of the Convergence Institute and the Division and Associate Director of Quantitative Sciences at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins.

“In Dr. Fertig, we found the ideal visionary who will work to align IGS with the clinical and research missions of the Greenebaum Cancer Center, as well as with other UMSOM clinical departments to deliver cutting-edge advances in genome research and clinical genomic testing,” said Dr. Owonikoko.

Dr. Fertig’s landmark research involves using computational methods to identify cellular and molecular mechanisms of carcinogenesis and therapeutic resistance from a vast trove of multiplatform genomics data. During her 16 years at Hopkins, she built a transdisciplinary lab—with researchers spanning diverse scientific backgrounds—to bridge the fields of mathematical theory, software development, cancer biology, and clinical oncology, contributing to her mission to account for the complex evolutionary processes in cancer for therapeutic selection.

With over 130 research publications, Dr. Fertig is currently principal investigator or core lead on several National Cancer Institute Consortia grants, including the Cancer Systems Biology, Informatics Technologies for Cancer Research, and Translational and Basic Science in Early Lesions Consortia, and the National Institute of Aging Mouse SenNet Consortium.

Dr. Fertig earned a BS in Physics and Mathematics at Brandeis University and received her PhD in Applied Mathematics from the University of Maryland, College Park (UMCP), where she now serves as a member of the Graduate Faculty. She was a postdoctoral fellow in the Department of Oncology at Johns Hopkins University before accepting a faculty position at the university.