

Alexander J. R. Bishop

Director, Center for Childhood Cancer Research, Nationwide Children's Hospital

Professor of Pediatrics, The Ohio State University

TPAC member since 2026

Dr. Bishop obtained his D.Phil. in Natural Sciences from the University of Oxford and subsequently completed postdoctoral training in cancer cell biology and genetics at the Harvard School of Public Health and Harvard Medical School.

Dr. Bishop is a molecular geneticist whose research focuses on DNA damage response and repair, with an emphasis on how transcriptional dysregulation drives genome instability in cancer. His work has defined key mechanisms linking RNA polymerase II regulation, R-loop biology, and homologous recombination, and has demonstrated how oncogenic drivers, including the EWS::FLI1 fusion in Ewing sarcoma, disrupt transcriptional control and impair DNA repair, identifying associated therapeutic vulnerabilities.

His research program integrates genetics, molecular and cell biology, and genome-scale approaches with in vivo model systems, including genetically engineered mouse models and tumor xenografts. His group develops tools and analytical frameworks to study transcriptional dynamics, replication stress, and genome stability, with current efforts focused on transcription–replication conflicts, BRCA1 regulation, and the interaction between metabolic and stress response pathways, including NRF2 signaling, and DNA damage responses.

Dr. Bishop currently serves as Director of the Center for Childhood Cancer Research at Nationwide Children's Hospital and Professor of Pediatrics at The Ohio State University. In this role, he leads a multidisciplinary program that integrates basic and translational pediatric oncology, with a focus on identifying mechanisms of tumor development and therapeutic vulnerabilities to inform new treatment strategies.

Prior to this, he held faculty positions at UT Health San Antonio, where he rose to Professor and served as a principal investigator at the Greehey Children's Cancer Research Institute. During this time, he established a research program in genome instability and cancer biology and contributed to institutional research and training initiatives.

Dr. Bishop has played a significant leadership role in the cancer research community. He served as Chair of the NIH Molecular Cancer Therapeutics study section and has participated in numerous national and international grant review panels and scientific advisory activities. He is an active member of organizations including the American Association for Cancer Research and the Children's Oncology Group, contributing to research efforts in pediatric cancer and Ewing sarcoma biology.

He is also committed to training and mentorship, having supervised graduate students and postdoctoral fellows who have advanced to careers in academia, industry, and government. He has led institutional training programs, including as Principal Investigator of an NCI-funded T32 program, and has been recognized for excellence in graduate education, including induction into the UT Shine Academy.

Dr. Bishop has received multiple honors for his contributions to cancer research and education, including the Richard J. Solove Endowed Chair in Cancer Clinical Developmental Therapeutics and the Mays Cancer Center Discovery of the Year award.