

**Patrick Grohar, M.D., Ph.D.**

Dr. Patrick Grohar received his B.S. in chemistry from Villanova University followed by his Ph.D. in chemistry and his M.D. from Wayne State University in Detroit, Michigan. He then completed a residency at Johns Hopkins University followed by fellowship training in pediatric hematology oncology at Johns Hopkins and the National Cancer Institute, where he also served as a junior faculty member. After NCI, he joined the faculty at Vanderbilt University as an assistant professor of pediatrics before arriving at Van Andel Research Institute as an associate professor in July 2015.

Dr. Grohar is the program leader of Skeletal Disease and Cancer Therapeutics in VARI's Center for Cancer and Cell Biology. He also is a member of the division of pediatric hematology/oncology at Spectrum Health Helen DeVos Children's Hospital and holds an academic appointment at Michigan State University in the Department of Pediatrics. He is a member of the Children's Oncology Group Bone Tumor Steering Committee and vice-chair of the Ewing Sarcoma Biology Committee of the Children's Oncology Group. In addition, he is on the Developmental Therapeutics committee of the Sarcoma Alliance for Research through Collaboration (SARC). Dr. Grohar's work focuses on the development and clinical translation of targeted therapies for pediatric cancer. He has a number of studies in various stages of discovery, preclinical development and clinical translation. He employs a bench-to-bedside approach focused on trying to improve all steps in the therapeutic development process.

**Research description**

Ewing sarcoma cells depend on the continuous activity of a protein called EWS-FLI1 transcription factor for survival – if EWS-FLI1 is blocked, the cancer cells die.

To this end, Dr. Patrick Grohar and his team are searching for vulnerabilities in EWS-FLI1 in order to target them for treatment with new, small-molecule inhibitors, which are drugs that prevent the protein from working. As part of these efforts, they have screened thousands of compounds and have identified a group of small molecules that show evidence of inhibiting EWS-FLI1. Support from the Ry Guy Foundation is helping the team develop a test that will allow them to identify which compounds best inhibit EWS-FLI1 and which only partially inhibit EWS-FLI1. This information will help them determine how to successfully target EWS-FLI1 while also identifying promising compounds for translation into the clinic and prioritizing these compounds for further preclinical development.