

Outstanding Young Alumni: Dr. Patrick C. McGuire, class of 1985



The University High School Alumni Association honors Dr. Patrick C. McGuire, class of 1985, as the recipient of the 2012 Outstanding Young Alumni Award for his achievements in as a research scientist in the areas of climate science, planetary science and astrobiology, astrophysics, and robotics and computer vision.

McGuire serves as a Research Associate in the Department of Chemical Engineering at West Virginia University, where he works on computer modeling of natural gas hydrates and carbon sequestration. He also serves as a member of the Compact Reconnaissance Imaging Spectrometer for Mars ("CRISM") team based at Johns Hopkins University. In 2011, he received the NASA Group Achievement Award as a member of the CRISM team for hyperspectral imaging camera on-board the Mars Reconnaissance Orbiter (MRO). In 2010, he received the NASA Tech Brief Award for an article he co-authored, which used the CTX and HiRISE cameras on MRO to improve NASA's ability to map boulders on the surface of Mars.

In 2008, he received the Humboldt Research Fellowship from Germany after he had completed the Robert M. Walker Fellowship in Experimental Space Science at Washington University in St. Louis. He was a prior recipient of the Ramon y Cajal Fellowship in Spain, as well as a U.S. Department of Education/National Science Foundation Pre-Doctoral Fellowship at the University of Arizona.

In his research, McGuire has led the development of the Cyborg Astrobiologist system, and has developed atmospheric correction software for the multispectral mapping mode of the CRISM camera on-board the Mars Reconnaissance Orbiter. He has worked on research of dark matter particles and developing anthropomorphic robotics. His research has been published widely in refereed journals and other publications. McGuire has spoken widely throughout the country and in Europe on his research interests. He also serves as a referee for various scientific journals. He also has lectured in the areas of sustainability, global warming, astronomy, and planetary science.

McGuire developed his interest in math and science while at U-High. He was the recipient of the Thomas E. Barger Physics Award and Bausch & Lomb Science Citizenship Award. After U-High, he attended the University of Chicago as a National Merit Scholar, majoring in physics and mathematics, and completed his doctorate at the University of Arizona. McGuire and his wife reside in Morgantown, West Virginia.