

Ahna Skop is a geneticist, artist, author, and a winner of the prestigious Presidential Early Career Awards for Scientists and Engineers (PECASE). Her lab seeks to understand the molecular mechanisms that underlie asymmetric cell division, with a focus on the midbody. The last step in cell division, abscission, relies on a transient electron-dense structure called the midbody, which resides inside the intercellular bridge between newly forming daughter cells. Long conceptualized as a structural remnant subject to degradation following cell division, emerging data suggest that midbodies play instructive post-mitotic roles in establishing cell fate, proliferation state, tissue polarity, cilia formation, neuron function, and oncogenesis. Midbody dysregulation leads to birth defects, cancer, and age-related neurodegenerative diseases. In 2004, Ahna pioneered proteomic and genomic approaches

to identify novel cell division proteins by utilizing biochemically purified midbodies, which was published in *Science*. More recently, the lab has discovered that the midbody is a translationally active RNA containing organelle. The Skop lab's focus now is to determine how this signaling organelle behaves as novel form of intercellular communication in mammalian cancer and stem cells.

Understanding how cells divide is highly dependent on *in vivo* microscopy and large amounts of visual data, which dovetails perfectly with one of her other passions, art. The combination of scientist and artist inspires her to think differently and maintain an open mind. Some of her work can be seen in the main entrance of the Genetics/Biotechnology Center building on the UW-Madison campus with a 40ft-scientific art piece called "Genetic Reflections". Her accompanying book, "Genetic Reflections: A Coloring Book", showcases the beauty of genetics, model organism biology, and DNA found in the art piece. She has also curated and contributed to a traveling exhibition of scientific art called "TINY: Art from microscopes" from the UW-Madison campus, and she has organized the bi-annual Worm Art Show for the International *C. elegans* Meeting for over 25 years. Ahna is also passionate about increasing the numbers of underrepresented students in STE(A)M fields. In 2016, she was awarded the very first of two, Chancellor's Inclusive Excellence Award for her outreach and inclusive teaching efforts. She has served as a board member for SACNAS (Society for the Advancement of Chicanos and Native Americans in Science) and on the ASCB (American Association for Cell Biologists) Minority Affairs Committee, where she has broadened her impact on underrepresented students in science nationally.

Ahna is the child of artists. Her father, Michael Skop, was a bit of a Renaissance man and was a classically trained fine artist who studied with Mestrovic (a pupil of Rodin) and also taught college-level anatomy. Her father operated an art school at their home studio for over 30 years and attracted artists, musicians, and philosophers from all over the world. Her mother was a high school art educator, ceramicist, and has dabbled in fiber art, sculpture and painting. Her two sisters and brother are also graphic and industrial designers. She has embraced her parents' love of creativity in everything she does. She majored in biology and minored in ceramics at Syracuse University (1990-1994), where her father had played football and studied with Mestrovic. She received her Ph.D. in Cell and Molecular Biology at the University of Wisconsin-Madison (1994-2000) and conducted her post-doctoral work at UC-Berkeley (2000-2003).

Ahna is a Professor in the Department of Genetics and an affiliate faculty member in Life Sciences Communication and the Division of the Arts at the University of Wisconsin-Madison. She mentors both scientists and art students in her lab, and also serves on the board of the Wisconsin Science Museum, where many of her art-science collaborations are on display. In 2008, she was awarded an honorary doctorate of science from the College of St. Benedicts, and was named a Remarkable Women in Science from the AAAS. In 2015, she was honored as a Kavli Fellow from the National Academy of Sciences. In 2018, she was awarded the first ever Inclusive Excellence Award by the ASCB and HHMI. She has served as an advisor to the chief diversity officer at the NIH, and is a diversity consultant to the Chan Zuckerberg Initiative (CZI) and the Howard Hughes Medical Institute (HHMI). In 2019, she was honored as one of 125 Women in STEM with an <u>AAAS IF/THEN</u> Ambassadorship. Her science and art have been featured by Apple, *The Scientist, USA Today, Smithsonian, PBS.org, NPR* and *Science* magazine. One of her great hobbies is cooking/baking (including scientific cakes!) and she manages two foodblogs, <u>foodskop.com</u>, and her AAAS IF/THEN funded <u>labculturerecipes.com</u> in her free time.