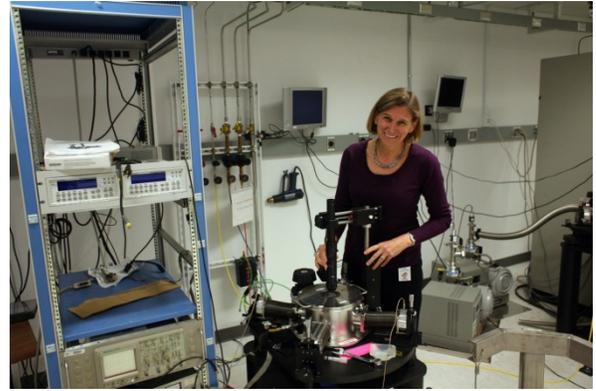


Dr. Liesl Folks

Advanced Technologies, Media Program Manager  
HGST, a Western Digital company

**SCIENTIFIC/ENGINEERING ACCOMPLISHMENTS:** Dr. Liesl Folks is a nanotechnologist with fifteen years' experience driving research and development of new technologies, and transferring them into manufacturing, primarily for the magnetic data storage industry in Silicon Valley. She has published 55 highly-cited publications with >5000 total citations and an h-index of 20. She has also been issued 14 US patents. The publications and patents reflect research in magnetic materials and nanostructures, magnetic recording media, permanent magnets, novel field sensors, and spin transfer torque memories with a particular focus on integrating such devices into multilevel or 3-D magnetic memory architectures. In all this research, a common research tool has been scanning probe microscopy techniques for which she is internationally recognized. In particular, she has been a leader in the development and use of scanning probe microscopy in industrial applications and is a regular consultant to microscope and probe manufacturing. Based, in large part, to the diverse and successful research career it was recently announced that Dr. Folks will be the new Dean of Engineering and Applied Sciences at the University at Buffalo starting in the spring quarter 2013.



**MENTORING:** Dr. Folks has had a remarkable career mentoring young scientist for almost 20 years with a particular focus on supporting women in the sciences. These efforts are particularly impressive given that a large part of her career has been in industry which often does not reward such efforts. She has also taken leadership positions in professional societies such as president-elect (2011 – 2012), and president (2013 – 2014) of the IEEE Magnetics Society Specific. Specific examples of mentoring efforts are given below:

- Staff Member at the National Science Summer School, Australia, (2 week long program for high school students to be exposed to a range of science careers and concepts), 1985, 1986
- As a graduate student, mentored high school students, during 4-6 month lab projects, through CSIRO-sponsored "CREativity in Science and Technology" program (CREST), in Australia, 1992, 1993
- Active in MentorNet, mentoring W&URM PhD students through to graduation and job placements. ([http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2008\\_02\\_08/carecredit.a0800022](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2008_02_08/carecredit.a0800022)), since 2000
- Was instrumental in starting and promoting the IEEE Magnetics Summer School, a free week-long program held annually in different sites around the world, for 100 graduate students from across the globe, now entering its sixth year. Acted in capacity of Treasurer for the first five Schools.
- Core Team member for Hitachi Women's Interest Network (2004 – 2012).
- Founding core-team member of the IBM Almaden Women's Networking Group, 1999.
- Started, and continue to run, the Women in Magnetism Networking Receptions, held at every Intermag and MMM conference, with Julie Borchers of NIST (circa 2008 -now)
- Teach science in elementary schools through "Science is Elementary" program, 2011, 2012

**SHORT BIOGRAPHY:** Dr. Folks received her BSc. with Honours (1989) and Ph.D. in Physics (1994) from the University of Western Australia and an MBA with Distinction (2004) from Cornell University. After her Ph.D. she stayed at the University of Western Australia first Research Associate, Special Research Center for Advanced Mineral & Materials Processing (1994 - 1995) and then as Research Fellow, Faculty of Science (1995 - 1997). In 1997 she joined the IBM Almaden Research Center as a Senior Postdoctoral Scientist (1997 – 1999) and then as a Research Staff Member (1999 - 2003). When the IBM storage division was sold in 2003 she became Research Staff Member at the Hitachi GST San Jose Research Center (2003 - 2008). In 2008 she was promoted to Manager, Media Advanced Technologies (2008 – present) where she oversees and manages technology transfer from Research to Advanced Development for Recording Media for all Hard Disk Drive (HDD) products and all platforms. Starting in 2013 she will be Dean of Engineering and Applied Sciences at the University at Buffalo.