

Biography
Andrew Mesecar, Ph.D.
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Professor Andrew Mesecar completed his B.Sc. in Chemistry degree at Purdue University, West Lafayette, IN, in 1988. He received his Ph.D. in Biochemistry in 1995 from the University of Notre Dame, South Bend, IN, which is also his hometown. He then went onto the University of California, Berkeley, and completed a post-doctoral fellowship in structural enzymology and X-ray crystallography under the direction of Prof. Daniel E. Koshland Jr. In 1999, he started his career as an assistant professor in the Department of Medicinal Chemistry and Pharmacognosy at the University of Illinois at Chicago where he initiated his research into the basic biochemical and structural mechanisms of how natural product and dietary molecules such as resveratrol from wine, and sulforaphane from broccoli, prevent cancer. He quickly rose through the ranks and was promoted to full professor in 2008. He served as the assistant head of the department from 2009 until the time he left for Purdue. In August of 2010, Professor Mesecar moved to Purdue University as the Walther Professor of Cancer Structural Biology where his lab works to decipher the atomic resolution structures of enzymes that are promising new drug targets. While he continues on his quest to find natural product-derived therapeutics that prevent cancer, his lab is also working on the discovery and development of new anticancer agents to fight multiple myeloma, prostate and breast cancer. Professor Mesecar's lab is also working on the development of novel antiviral agents and attenuated vaccines that can be used to treat or prevent human respiratory infections caused by coronaviruses such the Severe-Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), as well as animal coronaviruses that kill pigs (Porcine Epidemic Diarrhea Virus or PEDV) and cats (Feline Infectious Peritonitis Virus or FIPV). He has authored over 120 scientific publications and he has presented his research in over 150 seminars and poster presentations. His research is funded by grants from the National Institutes of Health, the Walther Cancer Foundation and the Department of Defense. Since 2010, Professor Mesecar has been serving as the Deputy Director of the Purdue Center for Cancer Research and in August 2015, he became Head of the Department of Biochemistry at Purdue.

