

Andrew B Wells, PhD

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National Science Foundation

Dr. Andy Wells has been a Program Director in the National Science Foundation's Advanced Manufacturing program since 2019, where he supports fundamental research to advance American manufacturing technologies. He is also the co-leader of the Future Manufacturing solicitation, which in its first four years has provided over \$135M of support for research and education that will enable new, potentially transformative, manufacturing approaches to overcome scientific technological, educational, economic and social barriers that limit current manufacturing. He is an NSF representative to the National Science and Technology Council's (NSTC) Subcommittee on Advanced Manufacturing, and to the Manufacturing USA Interagency Working Group. Andy brings to the program over 25 years of experience developing and building precision equipment that enables manufacturers and researchers to visualize and transform materials at the micro- and nano-scale. Previously, he was a technical program manager at Thermo Fisher Scientific and FEI Company, where he led development of scanning electron microscopes and ion-beam machining tools for semiconductor, materials science, and life science customers. Prior to that, he developed equipment for laser and mechanical micromachining at Electro Scientific Industries and was an adjunct professor at Portland State University. Andy received his PhD and MS degrees in mechanical engineering from Caltech, and his bachelor's degree from Dartmouth.

Presenting:

"The intersection of additive and nano manufacturing at the National Science Foundation".

The U.S. National Science Foundation (NSF) has supported fundamental research in additive manufacturing and nanomanufacturing from their earliest versions. NSF continues to underwrite exploration of new techniques for nanoscale 3D printing and related areas, as it invests in research and education to help revitalize the manufacturing sector, increase the resilience of U.S. supply chains, and train Americans for jobs of the future. This presentation will highlight nano/additive projects supported by NSF, discuss areas of interest and promise, and describe NSF funding opportunities in those areas.