

U.S. UNIVERSITIES POWERED THIS YEAR'S NOBEL PRIZE BREAKTHROUGHS

Fundamental research leads to life-changing discoveries, but it can take scientists years to produce groundbreaking science. After decades of investigation — including fundamental research — conducted on university campuses throughout the United States, this year's Nobel Prize Laureates have been recognized for their transformative contributions to the world.

Donna Strickland and **Gérard Mourou**, with ties to the University of Rochester, Princeton University, and the University of Michigan, won the **Nobel Prize in Physics** for creating a method of generating high-intensity, ultra-short optical pulses.¹



Arthur Ashkin, who received his B.S. from Columbia University, won the **Nobel Prize in Physics** for optical tweezers and their application to biological systems.²

Frances H. Arnold, with ties to Princeton University and UC Berkeley, won the **Nobel Prize in Chemistry** for the directed evolution of enzymes.³



James P. Allison, with ties to UC Berkeley, won the **Nobel Prize in Medicine** for the discovery of cancer therapy by inhibition of negative immune regulation.⁴

William D. Nordhaus, with ties to Yale University and Massachusetts Institute of Technology, won the **Nobel Prize in Economic Sciences** for integrating climate change into long-run macroeconomic analysis.⁵



Paul M. Romer, with ties to New York University, UC Berkeley, Stanford University, University of Rochester, and Massachusetts Institute of Technology, won the **Nobel Prize in Economic Sciences** for integrating technological innovations into long-run macroeconomic analysis, validating the value of long-term, fundamental research.⁶



To learn more about the universities behind fundamental science breakthroughs, visit:

www.sciencecoalition.org

RESOURCES

- <https://www.nobelprize.org/prizes/physics/2018/mourou/facts/> <https://www.nobelprize.org/prizes/physics/2018/strickland/facts/>
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