



College Research Website: <https://www.uakron.edu/engineering/research/>

College Eight Focus Areas: <https://www.uakron.edu/engineering/research/areas/>

College Research Centers: <https://www.uakron.edu/engineering/research/centers>

Message from the Dean's Office

Greetings... this is the third research newsletter, and we believe it is becoming a tradition as we move forward. This section provides news on the research enterprise in the college, and we have now expanded it to cover our graduate program too, as both are intimately interlinked. We put together the **Graduate Program Strategy Group (GPSG)** last semester, and it continues to work on three areas: *International Recruiting, Domestic Recruiting, and Enriched Graduate Experience*. We now have over 10 international MoUs that create additional recruitment and research opportunities. You will soon see new brochures for domestic recruiting, and numerous new initiatives to enrich the graduate experience (college-wide seminars every Tuesday at 12noon in ASEC 104, ZEFS for graduate students, and a college-wide map of all graduate courses offered). Please stay tuned....

Research Highlight

The BioEngineering for Translational Applications Laboratory (BETA Lab), led by Dr. Hossein Ravanbakhsh, Assistant Professor of Biomedical Engineering, has received external funding from the American Heart Association (AHA) and the National Science Foundation (NSF) to investigate shape memory polymer-based heart valves. The two awards, totaling \$350,746, will support research on fully polymeric implants designed to conform to a target geometry in response to body temperature. By integrating 3D bioprinting with shape-memory biomaterials, this project aims to advance the fundamental design and manufacturing strategies for polymeric cardiovascular implants, with an emphasis on minimally invasive and patient-specific approaches.



Major Opportunities

Please go to **Grants.gov** and then Search Funding Opportunities. You can put in different filters: categories, agencies, max \$ amounts, etc. https://simpler.grants.gov/search?utm_source=Grants.gov. Below are some examples based on large grant opportunities:

1. **NSF Translation to Practice (TTP-Explore, Translate and Partner):** Use-inspired research, translational activities and partnerships that turn scientific discoveries into real-world solutions. Up to \$5M, Closing: May 19 & Sept 15, 2026 <https://www.nsf.gov/funding/opportunities/nsf-ttp-national-science-foundation-translation-practice>.
2. **Scholarships in STEM Network**, NSF, Deadline: Aug 13, 2026, \$3-\$15M, <https://simpler.grants.gov/opportunity/e0c28f69-bc32-4e66-877b-5f775e5089f3>
3. **FAA Aviation Research Grants**, DOT-FAA, Deadline: Sept 2027, Aircraft safety, human factors, etc., Up to \$6M, <https://simpler.grants.gov/opportunity/721d5c2c-af72-4c33-8ce6-013b1e8ad59b>
4. **Major Research Instrumentation Program**, NSF, Up to \$4M, Closing: Nov 16, 2026, <https://simpler.grants.gov/opportunity/847cbfa3-7f00-4b91-bd69-e0b7f5c676f3>
5. **Energy Frontier Research Centers (EFRCs)**, Office of Science, EFRCs integrate experiments, theory, computation, and AI/ML in energy. Closing: July 1, 2027, \$12-18M <https://simpler.grants.gov/opportunity/a096bc1f-4aa5-4cee-8e3e-972492c52c06>