

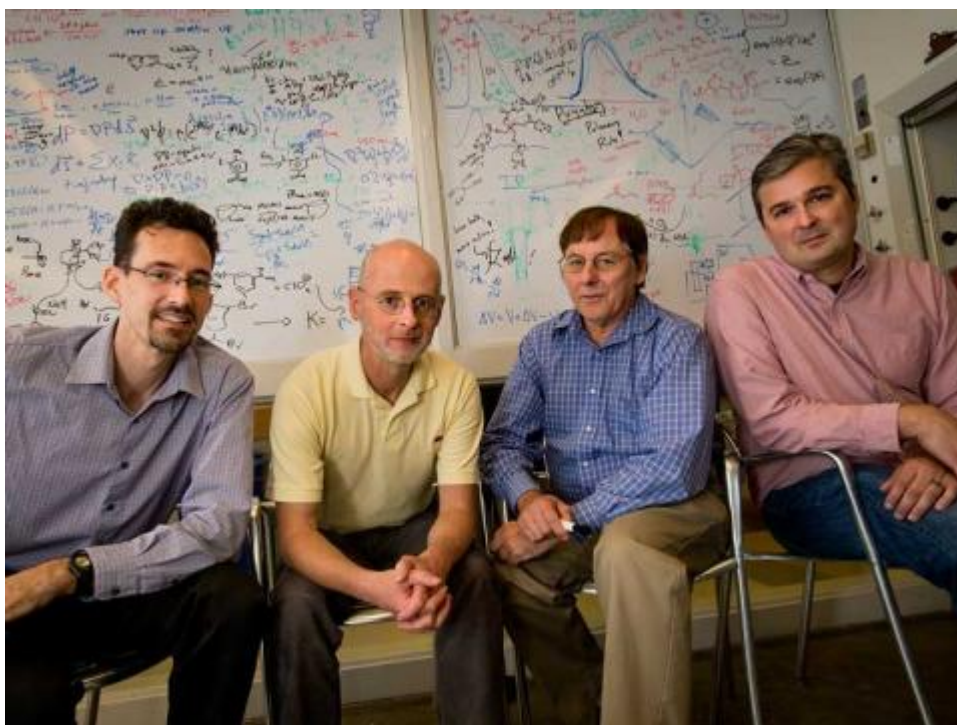
Tulane researchers awarded grant to develop smart polymers

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Tulane faculty members Scott Grayson, Bruce Gibb, Wayne Reed and Hank Ashbaugh. (Photo by Paula Burch-Celentano)

[The National Science Foundation](#) has awarded a group of 14 Louisiana and Mississippi researchers – including four from Tulane University – up to \$6 million to develop tools that will help strengthen the regional workforce and broaden opportunities in science, technology, engineering and mathematics (STEM).

The Tulane scientists — Hank Ashbaugh, associate professor of chemical and biomolecular engineering; Wayne Reed, physics professor; Scott Grayson, associate

professor of chemistry; and Bruce Gibb, chemistry professor — are part of the Louisiana-Mississippi Consortium, which will develop new experimental and computational tools for accelerating development of smart polymers used to create materials for targeted drug delivery, self-healing materials that recover from damage and nano-composites that resist bacterial growth.

The Tulane team's share of the grant is \$2 million, adding to the nearly \$1 million the group has already received from the NSF for related work. The grant, which is being supported by the Louisiana Board of Regents Support Fund, is part of an \$18 million award being divided among three regional consortia over the next three years through the NSF's Experimental Program To Stimulate Competitive Research.

The interdisciplinary Tulane research team, called the Smart MATerial Design, Analysis and Processing (SMATDAP) Consortium, will apply advanced monitoring, synthesis, modeling and control strategies across the life cycle of polymer development from the laboratory to the factory floor. The consortium will tailor the design of smart polymers to meet pressing needs in drug delivery, environmental remediation and nanomaterials.

"SMATDAP is really the crown on interactions in materials chemistry/science that has been brewing for a while here in the School of Science & Engineering," Ashbaugh said.

Tulane is among eight universities participating in the Louisiana-Mississippi Consortium. The others are Louisiana State University, University of New Orleans, Xavier University, Jackson State University, Mississippi State University, University of Mississippi and the University of Southern Mississippi.