



MSU nominees for 2012 Goldwater Scholarship announced

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EAST LANSING, Mich. -- Based on academic accomplishment and excellence in science and mathematics, four Michigan State University [Honors College](http://honorscollege.msu.edu) students have been nominated by faculty for the 2012 Barry M. Goldwater Scholarship.

"We are pleased to recognize the considerable potential of these four emerging scholars," said Cynthia Jackson-Elmoore, dean of the Honors College. "Each of them embodies the essence of dedication and commitment to their fields of interest and represents the best of MSU and the broader community. They have bright futures ahead and we look forward to their continued accomplishments."

Megan Buczkowski, Mairin Chesney, Shan Kothari and Craig Pearson are the 2012 Goldwater Scholarship nominees.

- Megan Buczkowski, a graduate of Haslett High School, is a junior Honors College member majoring in materials science and engineering in the College of Engineering. Buczkowski has conducted biomaterials research in Melissa Baumann's lab examining the effects of fractures in bone tissue engineering scaffolds and their influence on subsequent bone formation.

Buczkowski's passion for biomedical science and engineering grew out of a concern for the lack of treatment options for a sibling's brain disorder diagnosis. She plans to attend graduate school to obtain a doctoral degree in neuroscience to prepare her to conduct research on the pathology and treatment of neurological disorders, using her knowledge of engineering to improve brain diagnostic tools and implants.

- Mairin Chesney, a graduate of Brighton High School, is a sophomore Honors College member majoring in computer science in the College of Engineering. Chesney combined her love of computer science and biology while working with Charles Ofria in the BEACOI Center for the Study of Evolution in Action Center. She has also collaborated with fellow undergraduate students to design a joint oral presentation and research poster that won first prize at the Michigan Celebration for Women in Computing Conference.

Chesney's passion for digital evolution grew from her fascination with how simple computer programs could exhibit many characteristics of life and the abundance of unexplored areas in which to add new relevant functionality to a digital system. It is because of the many fundamental evolutionary questions that remain unanswered that Chesney plans to obtain a doctorate in computer science and pursue a research career in computational biology.

- Shan Kothari, a graduate of Plymouth High School in Canton, is a sophomore Honors College member dual majoring in zoology and anthropology in the Lyman Briggs College and College of Social Science, respectively. Kothari has taken part in research opportunities at the Ostling Lab at the University of Michigan, Densmore Lab at Texas Tech, Weizman Institute of Science in Israel, Swenson Lab at MIT and an REU Program at the American Museum of Natural History. Currently, Kothari is working with Nathan Swenson and collaborating with Jason Pither at the University of British Columbia to study patterns of phylogenetic diversity in conjunction with their ongoing research project.

Kothari plans to obtain a doctorate in ecology or evolutionary biology, with an emphasis in examining community assembly. He is also looking into opportunities to conduct research in synthetic biology. Kothari hopes to cross disciplinary boundaries separating biology at the ecological and cellular levels.

- Craig Pearson, a graduate of the University of Detroit Jesuit High School and Academy, is a sophomore Honors College member dual majoring in biochemistry and molecular biology and English in the Lyman Briggs College and College of Arts and Letters, respectively. Pearson has conducted research with Melissa Baumann and Simon Petersen-Jones with the goal of developing a bioresorbable drug release vehicle for the controlled release of artificially derived vitamin A, with the goal of restoring sight to those suffering from a rare, congenital eye disease.

Pearson's passion for biomedical science grew when he volunteered at a school for children with physical and mental disabilities. Being a visual learner himself, Pearson was most challenged when communicating with children suffering visual impairments. It is because of these experiences and struggles while working with these children that Pearson plans to obtain a medical degree and a doctorate in biochemistry. He is looking to facilitate breakthrough research in the biomedical sciences with a focus in developing treatments for

Related Links

- [Honors College](http://honorscollege.msu.edu)
- [Goldwater Scholarship](http://www.act.org/goldwater)

blindness and visual disorders and to train the next generation of scientists and researchers.

Started in 1986, the [Barry M. Goldwater Scholarship and Excellence in Education Program \[http://www.act.org/goldwater/index.html\]](http://www.act.org/goldwater/index.html), named after U.S. Senator Barry M. Goldwater, seeks scholars committed to a career in science, mathematics or engineering who display intellectual intensity and who have the potential for significant future contribution in their chosen field. The Goldwater Scholarship provides a grant toward the last year or two of undergraduate tuition and living expenses for students who are planning careers in research.

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