The AMS Mary P. Dolciani Prize for Excellence in Research recognizes a mathematician from a department that does not grant a Ph.D. who has an active research program in mathematics and a distinguished record of scholarship. The primary criterion for the prize is an active research program as evidenced by a strong record of peer-reviewed publications.

This prize is funded by a grant from the Mary P. Dolciani Halloran Foundation. Mary P. Dolciani Halloran (1923–1985) was a gifted mathematician, educator, and author. She devoted her life to developing excellence in mathematics education and was a leading author in the field of mathematical textbooks at the college and secondary school levels. The prize is awarded every other year for five award cycles.

Diana M. Thomas

Diana M. Thomas will receive the 2023 Mary P. Dolciani Prize for Excellence in Research from the American Mathematical Society (AMS). Thomas is currently a Professor of Mathematics at the United States Military Academy, an Adjunct Professor at the Pennington Biomedical Research Center, and a Research Associate at the New York Obesity Research Center at Columbia University. She was awarded the prize for her outstanding research at the interface of mathematics with nutrition and obesity as well as her work in number theory, combinatorics, and dynamical systems, and for her impressive work with undergraduates.

Thomas has an extensive publication record with over 150 articles, book chapters, and conference proceedings. Much of her research is interdisciplinary and has been published in a diverse set of journals including those specializing in nutrition, obesity, behavioral science, biology, and pure mathematics. Her work on obesity and metabolism has been particularly impactful. Her nominators write that "she has published a remarkable series of highly original and imaginative papers that display creativity and quantitative rigor, and more recently, on the dynamics of energy exchange and weight gain in pregnancy. Each of these areas suffered substantial quantitative assessment gaps. The reports by Dr. Thomas provide not only important new biological insights, but also important clinical advances and assessment tools. She is rapidly filling the gap between classical mathematics and biological processes. In so doing, she adds a new dimension to the study of human obesity that is so pervasive across adults and children."

Her work has led to the design of innovative software that assists users with weight related health issues, and has been covered by several media outlets. The work of Thomas and her colleagues has been funded by numerous grants, including six funded by the National Institutes of Health. She received an American Heart Association Most Impactful Publications Award in 2014, and The Obesity Society George Bray Founders Award in 2017.

Thomas has advised undergraduate research in both pure and applied mathematics, and has coauthored more than fifty publications with undergraduates, including first-generation college students. She inspires undergraduates with informal discussions inside and outside of the classroom, and masterfully draws them into research projects that are appropriate for their background and interests. The undergraduates she has mentored have pursued many different professions, including enrollment into doctoral programs, and careers in education and medicine.

Thomas is passionate about transforming mathematics education, and she has served in several important leadership roles in this regard. She directed the MAA’s undergraduate research poster session competition, and while serving as Director of the Center for Quantitative Obesity Research at Montclair State University, grouped together STEM students engaged in quantitative research, medicine,
and nutrition, to develop and integrate their knowledge across disciplines. In addition, Thomas teaches an annual short course on the Mathematical Science in Obesity Research, and she recently served as a Remote Teaching Dean’s Fellow at the United States Military Academy. As her nominators write, “Her leadership, collegiality, and results oriented focus are three strengths that drive any program that she takes on to use science to answer hard questions. She has inspired, educated, and mentored generations of mathematics and nutrition researchers to choose fact and science to make policy decisions.”

**Biographical Note**

Diana M. Thomas received her PhD from the Georgia Institute of Technology in 1996 and is currently a professor of mathematical sciences at the United States Military Academy at West Point. Dr. Thomas has been an active research mathematician for over 25 years with a focus on nutrition and obesity related modeling. She co-invented the remote weight loss program, SmartLoss™, which has been clinically applied world-wide to guide and improve individual patient weight loss adherence through smartphone technology. Dr. Thomas has published over 150 peer-reviewed articles and book chapters which include over 50 articles with undergraduates. Her work has been covered by the *New York Times, Wall Street Journal, Fitness Magazine, Good Housekeeping, CBS News*, and *ABC News*. Dr. Thomas holds the 2012 Mathematical Association of America of New Jersey Distinguished Teaching Award and the 2015 Obesity Society George Bray Founder’s Award.

**Response from Diana M. Thomas**

To be nominated for this award by my colleagues is the ultimate recognition and reflects the level of support that I experience daily. My continued intellectual and personal development have been made possible by my relationships with the nominating team which include, COLs Hartley, Scioletti, Lindquist and Gist, LTCs Bluman and Wallen, Drs. Misiurewicz, Calkin, Heymsfield and Allison. What we, as professors, live for is the opportunity to play a role in the lives of our students and our mentees. The former students and early career faculty who have reached out because of this award have warmed my heart and remind me of the impact we make. Finally, I would like to thank my mother, Mary Thomas. No career is without obstacles. Every time I hit the big ones, she’s the person I turned to. As the tears and the heartache flooded, she would hold my hands and tell me to be patient and continue to work hard. She was confident that as long as I stuck to this work ethic, I would be successful. It is my hope she will be at the JMM awards ceremony this year to know that her words are why I persevered.

**Credits**

Photo of Diana M. Thomas is courtesy of the United States Military Academy.