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THE RHODE ISLAND SECTION OF THE AMERICAN CHEMICAL SOCIETY  
"THE FIRST SECTION"

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**Dr. Sarah Delaney**

Brown University

***Kitchen Chemistry: How Science Influences Food and Cooking***

**Thursday, May 11, 2017**  
**University of Rhode Island**

6:00	Light Buffet Dinner	The Richard E. Beupre Center for Chemical and Forensic Sciences 140 Flagg Road Kingston Campus
7:00	Presentation of Award and Lecture	Beupre Room 105

For dinner reservations, please email Louis Kirschenbaum [lkirsch@chm.uri.edu](mailto:lkirsch@chm.uri.edu) by **Friday, May 5 at noon**. Cost: \$10, \$5 for students.

**Sarah Delaney** received her B.A. in Chemistry from Middlebury College in 1999. She completed her graduate work at the California Institute of Technology in 2004, working in the laboratory of Jacqueline Barton on the ability of the DNA base stack to serve as a medium for charge transfer reactions. Dr. Delaney was a Damon Runyon postdoctoral fellow in the laboratory of John Essigmann at the Massachusetts Institute of Technology until 2007 where she studied the mutagenicity and toxicity of a variety of oxidized guanine lesions. Dr. Delaney is currently an Associate Professor in the Department of Chemistry at Brown University. Research in her laboratory is focused on establishing a chemically logical roadmap to understand how DNA damage relates to genetic change and human disease. In addition to researching the biochemistry of DNA damage she has an interest in cooking and how chemistry influences food. She teaches Organic Chemistry, Chemical Biology, and a broad interest course titled Kitchen Chemistry. She has been awarded an Outstanding New Environmental Scientist (ONES) Award from NIH/NIEHS and the Philip J. Bray Award for Excellence in Teaching in the Physical Sciences from Brown University.

**Kitchen Chemistry: How Science Influences Food and Cooking**

Have you ever wondered why olive oil is a liquid but butter is solid? Or why bread and cookies rise when baked? This seminar will highlight the chemistry underlying several aspects of food and cooking. We will discuss topics such as trans fats, leavening agents in baking, chemical basis for ripening of fruit, pectin as a cellular glue, artificial sweeteners, and enzymatic and non-enzymatic browning of foods. We will also discuss ways that

these underlying principles can make or break your recipes and tips to use chemistry to your advantage in the kitchen.

### **The 2017 Benjamin Peterson Award for Excellence in Teaching Secondary School Chemistry**

The 2016 Benjamin Peterson Award for Secondary School Chemistry Teaching will be presented at the May ACS meeting.

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