



# 58<sup>th</sup> ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

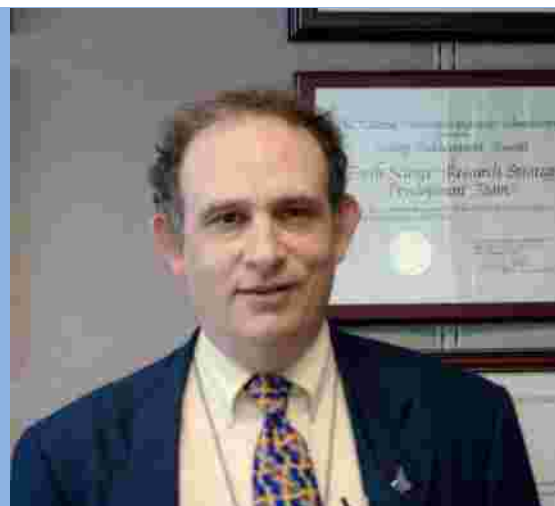


**Saturday, May 8, 2010 at Adelphi University, Garden City**

Keynote Speaker:

**Dr. Jack Kaye**

Earth Science Division Associate  
Director, NASA Chemistry, Climate,  
and Satellites: How Chemistry Helps us  
Observe and Understand Earth's  
Changing Climate



Global Change represents one of the major current challenges addressing the world – important not just for today but because of its ability to influence the environment for generations to come. Many of the sources and impacts of global change are chemical in nature, from the radiatively active trace gases that contribute to climatically important radiative forcing, to the aerosol particles whose composition can determine their radiative contributions (warming or cooling), and the availability of nutrients that can control biological productivity on land and oceans. Understanding the nature of the chemical processes involved in global change gives us the opportunity to improve our predictive capability for future Earth system evolution and to demonstrate the adequacy of our current understanding. Equally important, chemistry-related tools, including remote sensing and in situ measurements, provide a way for obtaining that understanding, providing a rigorous base for the quantitative understanding, future modeling, assessment, and policy development that are parts of global change science. Examples of how these tools based on chemistry have advanced our understanding of the Earth system and will continue to expand our capability into the future will be presented.

Student Activities Committee – New York Section  
American Chemical Society