**Webinar: Introduction to Green Chemistry**

**Who is this webinar for?**

Regulatory bodies, specifically government representatives.

Policy makers, who are now facing pressures to better control risk and provide guidelines to industries that need to be compliant with international safety standards.

**What will you learn?**

The benefits of green chemistry which can lead to a more efficient production process, less waste, better product design, and ultimately a healthier economy.

An overview of the science which will range from conceptual framework to social and environmental benefits which are aligned with sustainable development goals.

**Who is leading this webinar?**

**Karolina Mellor, Ph.D.**  
**Program Manager, Education Lead, Center for Green Chemistry & Green Engineering at Yale University**  
   
Karolina Mellor is a program manager with experience in green chemistry education and research. She joined the Center for Green Chemistry in 2014 and coordinated multiple projects, including Molecular Design Research Network and Global Green Chemistry Initiative.  
   
Karolina manages operations, outreach and development, but her primary role is to lead educational efforts in green chemistry. She translates research into teaching tools to educate diverse audiences in green chemistry and sustainability. Her expertise includes online/traditional teaching and instructional design, educational games development and workshop design.  
   
Before coming to Yale, Karolina received her Ph.D. in molecular biology from the University of Virginia. She also worked at the University Innovation Licensing and Ventures Group where she evaluated patent strategies and explored commercial potential of technologies developed at the university.

**Agenda**

**Session 1: The need for Green Chemistry**

From the Harber-Bosh process to findings in nanotechnology, advances in the chemical industry have had great impacts in human social organization. This first module highlights the importance of the chemical industry in everyday life and shows how its development is closely linked to the changes in the global society and economics. It also acknowledges the many environmental problems born with these advances and discusses the current approaches and solutions to them.

* Chemicals
* Unintended Consequences
* Environmental Challenges
* Reducing Costs

Questions

Break

**Session 2: Green Chemistry Definition and Principles**

The second session explains with detail the 12 Principles that define Green Chemistry as a field. The 12 Principles consist of guidelines for chemists to design chemical products and processes to reduce or eliminate the generation and use of hazardous substances. This module also compares green chemistry based technologies to traditional techniques, showing that it is possible to reconcile high performance and yield with environmental concerns.

* Benefits of Green Chemistry
* 12 Principles of Green Chemistry

Questions

Break

**Session 3: Areas of Green Chemistry**

The third session discusses the many aspects of research in Green Chemistry, highlighting the advances in technologies related to chemical feedstock, catalysis, solvents, and waste. It defines the importance of each one of these four aspects and establishes the connection between advances in these fields and the principles of Green Chemistry.

* Energy/Renewable Feedstocks
* Catalysis
* Solvents
* Waste

Questions

End