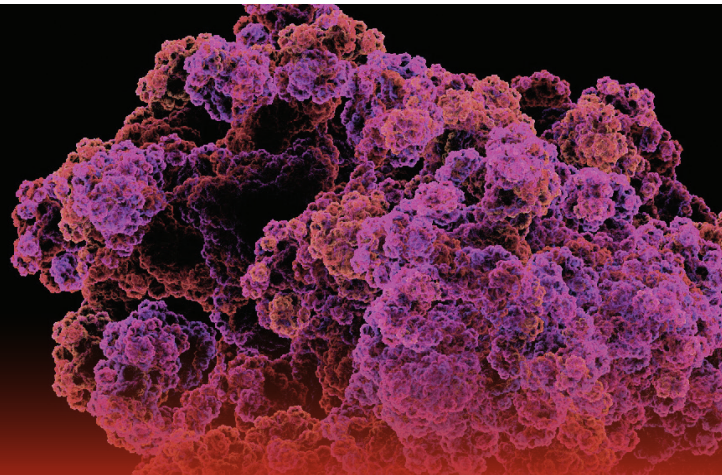


Cambridge Healthtech Institute's
16th Annual
PEPTALK
THE PROTEIN SCIENCE WEEK

January 9-13, 2017 | San Diego, CA
Hilton San Diego Bayfront



Prediction of Antibody Stability in Lyophilized Solids by Hydrogen Deuterium Exchange with Mass Spectrometric Analysis (HX-MS)

Kathleen Abadie, Engineer I, Pharmaceutical Development, Genentech

Cambridge Healthtech Institute recently spoke with Kathleen Abadie of Genentech about predicting protein stability in the solid state and her upcoming presentation “**Prediction of Antibody Stability in Lyophilized Solids by Hydrogen Deuterium Exchange with Mass Spectrometric Analysis (HX-MS)**”, 10th Annual Lyophilization and Emerging Drying Technologies conference, taking place **January 10-11, 2017** as part of the **16th Annual PepTalk** event which runs from **January 9- 13, 2017 in San Diego, CA**.

SPEAKER

Q&A

Q What are the challenges in predicting protein stability in the solid state?

There is a lack of methods that directly measure protein structure in the solid state. Hydrogen exchange, commonly used in the solution state

but novel for use in the solid state, directly probes structure by measuring the frequency of stabilizing amide H-bonds. However, solid state HX poses interesting challenges not present in solution, such as potential for solid matrix effects on D2O sorption and exchange kinetics.

Q Can you tell us why you chose to tackle this topic?

Solid state hydrogen exchange has the potential both to streamline the development of lyophilized pharmaceuticals and to deepen our understanding of the relationship between protein structure and stability

in the solid state. I am excited about the technology and humbled by how much there is left to know about it.

Q What are the major obstacles in implementing these techniques and what's revolutionizing your field of research

Implementation of solid state hydrogen exchange on a large scale would require higher throughput sample analysis than our current capabilities allow. We are looking into automated sample reconstitution and mass spectrometric analysis to address this.

Q Why are you attending PepTalk and what are you looking forward to at 2017's gathering?

I am attending PepTalk to gain diverse perspectives from industry and academia on my own work as well as gain exposure to current innovations across the entire protein therapeutics field.



SPEAKER BIOGRAPHY: *Kathleen Abadie, Engineer I, Pharmaceutical Development, Genentech*

Kathleen Abadie is an Engineer in Late Stage Pharmaceutical Development at Genentech with a B.S. in Chemical Engineering from Rice University. She has broad experience in biologics process development, having worked in Purification Development, Protein Analytical Chemistry, Biological Technologies, and Pharmaceutical Processing and Technology Development.

TO LEARN MORE ABOUT HIS
PRESENTATION AND PEPTALK, VISIT:

CHI-PepTalk.com/lyophilization-drying-technologies