

AAPS Connection

American Association of Pharmaceutical Scientists

December 2012

48th Annual AAPS Arden Conference: Pharmaceutical Materials Science and Engineering—Mechanical Characterization and Predictive Tools for Rapid Drug Product Development

March 4–6, 2013

USP Meetings Center, Rockville, MD

Over the last decade, pharmaceutical materials science has established itself as the foundation for quality-by-design (QbD) product development, and significant advances in the application of materials science have been made to understand the functionality of excipients and active pharmaceutical ingredients and how they influence the performance of formulations. Mathematical modeling can lend considerable insight and predictive ability to aid in development of difficult formulations, e.g., high drug loading, complex tablet shapes, or multilayer tablets. Both qualitative insight as well as quantitative modeling and prediction are possible when accurate material properties are known and their combined influence in a multicomponent formulation can be understood theoretically and empirically.

The implementation of QbD in pharmaceutical tablet product development has been largely relying on statistical approach, i.e., design of experiments (DOE). Although useful in identifying a design space, DOE typically is resource intensive and does not provide mechanistic understanding of the performance of a formulation. A seamless integration between materials science and DOE is a key for truly achieving QbD in product development.

In this conference, key materials science and engineering principles applicable to tablet design will be covered, e.g., relationship between mechanical properties and compaction behavior, crystal and particle engineering for superior

tableting performance, and powder flow measurement. This conference will provide formulation scientists with both basic knowledge in materials science and advanced techniques that can be used to facilitate the design of tablet product.

Goals and Objectives

- Review fundamental mechanical properties of pharmaceutical solids and the methods to measure them.
- Review theoretical modeling of particle mixing and simulation tools of powder compaction.
- Apply mechanical properties in drug product development following a (QbD) approach.

For more information visit www.aaps.org/Arden

AAPS Workshop on Drug Transporters in ADME: From the Bench to the Bedside

March 17–20, 2013

Bethesda North Marriott Conference Center
Bethesda, MD

The workshop will deliver cutting-edge science in a focused and state-of-the-art meeting.

Key areas of focus will include:

- the impact of drug molecules on physiological processes mediated by transporters,
- regulation of transporter expression and function in health and disease,
- state-of-the-art sessions on (i) effective transporter assays and (ii) emerging transporters and transporter sciences,

- the importance of understanding intracellular concentrations of drug and metabolites,
- transporters in translational medicine, and
- Food and Drug Administration-led session on regulatory perspectives on transporter-mediated DDI evaluation during drug development followed by an industry case study discussion forum.

For more information visit

www.aaps.org/Transporters13



The American Association of Pharmaceutical Scientists (AAPS) has entered the blogosphere, launching its newest social media initiative: the *AAPS Blog*.

The vision for the *AAPS Blog* is to provide multiple, timely perspectives on the issues affecting pharmaceutical scientists. The blog allows readers to connect with AAPS leaders, staff, and membership. And it increases readers' knowledge base of the pharmaceutical sciences.

Through the *AAPS Blog*, AAPS aims to enhance the AAPS community engagement through a timely, accessible outlet of perspective and conversation; provide the AAPS community with insight and relevance to the science presented at AAPS events; and develop a pipeline of engaging content to be applied throughout AAPS projects, including the AAPS Newsmagazine, webinars, workshops, white papers, etc. AAPS also hopes to further the social media conversation between AAPS and its members, strengthen the organization's reputation by showcasing reputable perspectives on the pharmaceutical sciences, chronicle the progress of pharmaceutical sciences,

and encourage new membership by reaching non-members in the pharmaceutical sciences.

The *AAPS Blog* is a key content hub and further promotes AAPS's vision to be the premier organization of all scientists dedicated to the discovery, development, and manufacture of pharmaceutical products and therapies through advances in science and technology. With a variety of guest contributors—including AAPS President David Y. Mitchell, Ph.D.—the *AAPS Blog* covers topics ranging from biosimilars and topical product development to the transition from school to industry. Visit the *AAPS Blog* regularly to learn more and join the conversation. If you are interested in contributing to the blog, send an email to aapsblog@aaps.org.

AAPS Online Career Center

AAPS Membership  **has its benefits!**

As a member of the American Association of Pharmaceutical Scientists (AAPS), you have access to a myriad of valuable benefits, including the AAPS Online Career Center!

The AAPS' Online Career Center is available to AAPS members and non-members. However, your professional affiliation with AAPS helps align you with an elite group of highly qualified individuals, illustrating a commitment to the increased visibility and recognition of the pharmaceutical sciences industry, ongoing professional development, and educational opportunities.

Posting your resume or CV with the AAPS Online Career Center is the perfect way to join with many of your colleagues in making your job board the premier resource tool for top industry employers!

Visit www.aaps.org/careers and create your profile today!

**Check out and sign up today on our AAPS
Social Media Career Resources!**

LinkedIn: AAPS Careers (this is a subgroup of AAPS)

Facebook: AAPS

Twitter – AAPSCareers

Upcoming AAPS Meetings

Log onto www.aaps.org/meetings for details

- **March 4-6, 2013**

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Pharmaceutical Materials Science and
Engineering—Mechanical Characterization
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Product Development**

USP Meetings Center, Rockville, MD

- **March 17-20, 2013**

**AAPS Workshop on Drug Transporters in
ADME: From the Bench to the Bedside
Conference**

Bethesda North Marriott Conference Center

Bethesda, MD

- **May 18, 2013**

**AAPS Workshop on Bioanalytical
Considerations for Antibody-drug
Conjugate Development: From Discovery to
Post-approval Commitments**

Sheraton San Diego Hotel and Marina, San Diego, CA

- **May 18-19, 2013**

**AAPS Workshop on Biologic Drugs: Recent
Developments in Formulation, Manufacture
and Characterization**

Sheraton San Diego Hotel and Marina, San Diego, CA

- **May 18-19, 2013**

**AAPS Immunogenicity Training Course II–
Advanced Topics in Evaluation of the
Immunogenicity of Biotherapeutics**

Sheraton San Diego Hotel and Marina, San Diego, CA

- **May 20-22, 2013**

**2013 AAPS National Biotechnology
Conference**

Sheraton San Diego Hotel and Marina, San Diego, CA

- **November 10-14 , 2013**

2013 AAPS Annual Meeting and Exposition

Henry B. Gonzalez Convention Center, San Antonio, TX

