

9TH ANNUAL GLOBAL DRUG DELIVERY & FORMULATION SUMMIT

Berlin, Germany, March 12–14, 2018



By James Arnold, Editorial Assistant, *ONdrugDelivery Magazine*

March 2018 saw Berlin play host to the 9th Annual Global Drug Delivery & Formulation Summit (DDF), organised by Mark Allen Group. The three-day conference hosted 227 delegates, 64 speakers and 125 commercial partner attendees, split across pharmaceuticals, 60%, delivery/formulation services, 31%, and universities, 9%.

The agenda featured four streams of presentations – Small Molecules, Biologics, Technology & Innovation and, a new addition, Device Development. Given that the topic of this issue of *ONdrugDelivery Magazine* is “Connecting Drug Delivery”, this review will focus on the Device Development stream and emphasise the talks that focused on connectivity.

The first talk of the new Device Development stream, given by Martin McLoughlin, Head of Device Development, Bristol-Myers Squibb, on the use of decision analytics to provide a rigorous approach to device selection and development gave insights into a methodical approach to this key issue. The rest of day one in the stream featured a strong emphasis on the evolving regulatory concerns of the combination product market. Of particular interest was the talk given by Richard

Wedge, Director Design Control Implementation, Pfizer, covering strategy for combination product post-launch risk management, an area of increasing importance given the post-market surveillance requirements of the new EU Regulations for Medical Devices (MDR) published last year. In addition, the stream

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featured talks on specific technologies and areas, including an excellent overview and outlook of the respiratory sector given by Gunilla Petersson, Science & Innovation Director, AstraZeneca.

The conference featured a strong line of talks on the topic of connectivity. The Device Development stream kicked off day two with a lively panel discussion titled “Challenges and Opportunities in Combination Product Design, Development and Use”, moderated by Bastiaan de Leeuw, Head of Business Development, Cambridge Design Partnership (Cambridge, UK), featuring Muriel Didier, Human Factors Team Head, Novartis, and Richard Wedge. The discussion quickly brought in the promise of connectivity and its potential applications, which remained a theme for the duration.

The devices stream also had an excellent talk on the subject of connectivity given by Tom Lawrie-Fussey, Digital Services Specialist, Cambridge Design Partnership, highlighting how connected technology can enhance the design process by revealing the actual behaviour of users, allowing for smarter design and better outcomes overall.

Continuing in the vein of connectivity, of particular interest was the closing keynote session of day two, a panel discussion moderated by conference chair Olaf Queckenburg, Head of Global Chemical & Pharmaceutical Development, Bayer, titled “How Big Data and Artificial Intelligence Can Revolutionise R&D”. The panel featured Brian Henry, Vice-President, Drug Product Design, Pfizer; Hannah Batchelor, Senior Lecturer in Pharmaceutics, Formulation and Drug Delivery, Director of Research, School of Pharmacy, University of Birmingham (UK); Patrick Garidel, Associate Director of Protein Science, Boehringer Ingelheim; and Prof Clive Wilson, JP Todd Professor of Pharmaceutics, University of Strathclyde (UK).

The discussion covered a wide range of topics and tones, from the highly optimistic outlook for the impact big data and AI will have on manufacturing and industry and how connectivity will enable closer co-operation between academia and industry, to more reserved considerations on the capacity, or lack thereof, of hi-tech solutions like big data and connected healthcare to take root in less developed parts of the world, as well as concerns surrounding cybersecurity and hacking.

The panel deliberated the practicalities of implementation and how to use the data gathered by this new technology,



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concluding that patience will be required and it is better to take a slower, right-first-time approach than to rush ahead without due consideration. The overall message was a positive one, the information age has much to offer the world of healthcare, but there remain risks and concerns that

still need to be thoroughly examined and duly addressed.

The last major theme to run through the Device Development stream was human factors. Patient-centricity and human factors engineering is a regular topic of discussion in modern delivery device development and,

as such, was mentioned in several talks.

A particular focus was given to the subject in the talks by Muriel Didier, with a focus on autoinjector design, Tom Lawrie-Fussey, with insights as to using technology and data science to observe user behaviours, and Richard Featherstone, Managing Director, Medical Device Usability (Cambridge, UK), presenting the results of research into the



underlying motivations behind patient preferences. The discussion of human factors was, unsurprisingly, not limited to the device development stream, and was the subject of two detailed talks focussing on the oral delivery route, given by Prof Dr Sven Stegemann, Director Pharmaceutical Business Development, Lonza, and Prof Wilson.

Though device development is of key interest in this issue of ONdrugDelivery, it was but one of four streams. Some highlights from the rest of the conference include Patrick Garidel's talk considering the practicalities and feasibility of high viscosity biologic formulations, Robert Meyer, Principal Scientist, Innovation and New Technology Development, MSD, discussing the values and ethos of investing in innovation in manufacturing (which also expressed the theme of excitement about the possibilities offered by smaller scale continuous manufacturing, enabled by innovation and data, which ran through many of the industrial talks), and the final keynote talk of the conference by Christophe Tistaert, Senior Scientist, Janssen, on developing a child-friendly chewable formulation of mebendazole for use in the developing world.

Naturally, networking is as much a part of a successful conference as the presentations and DDF did not disappoint, with long networking breaks and lunches to meet and discuss with fellow delegates. DDF features iSolve, its intelligent networking system for matching "buyers and sellers" with the same priorities and providing a scheduled private meeting. According to the DDF post event report, 77% of attendees "met somebody who could help with their current challenges" and 98% "learned something new and useful that can apply to their work".

This DDF featured the conference's first poster competition, with the winner selected by the delegates, which was won by "Polymeric Nanocarriers for Ocular Drug Delivery" by Vijayabhaskarreddy Junnuthula et al of the University of Helsinki (Finland).



Overall the conference was a resounding success, with a solid mix of representatives from academia and industry, and strong showings from pharma, manufacturing and device design. The 8th Annual American Drug Delivery & Formulation Summit will take place in San Francisco, CA, US, on October 10–11, 2018, and DDF returns to Berlin for the 10th Annual Global Drug Delivery & Formulation Summit on March 11–13, 2019, with topics being researched including "bringing device development closer to drug formulation" and "developing medical devices for wider eHealth integration".

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