

CROSS-INDUSTRY Organizations

The Respiratory Drug Delivery (RDD®) Conferences



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On behalf of RDD Online and Aptar Pharma



In the mid-1980s, chlorofluorocarbons (CFCs) were used as propellants in every pressurized metered dose inhaler (MDI) and the gelatin capsule-based Spinhaler® (Fisons, Ltd.) was the state-of-the-art in dry powder inhalers. Medical nebulizers operated almost exclusively on compressed gases. Conditions were challenging for new investigators and entrepreneurs looking to enter the field and develop ideas. Few regulators had detailed knowledge of inhaled products and the Montreal Protocol assured the landscape was about to be shaken by the phase-out of CFCs.

Early RDD Conferences

In this environment, Respiratory Drug Delivery (RDD) was conceived by Peter Byron and the first meeting was held in 1988. 3M and ATI Pharmaceuticals provided financial support. Peter's graduate students managed the logistics and were among about a dozen speakers

drawn from academia and industry. Two years later "Respiratory Drug Delivery," which Peter edited, became the record of the meeting and a popular textbook. At RDD II (1990), hosted by University of Kentucky in Keystone, CO, US, the audience doubled and included more international delegates. Requests for copies of the speaker papers illustrated the need to publish the proceedings faster. This was accomplished shortly after the meeting with the financial assistance of Delphi Pharmaceuticals and the editing skills of Richard Dalby and Richard Evans. RDD III (1992) added a poster session and speakers in themed sessions and poster presenters were required to write short papers subject to peer review.

In 1994, at RDD IV, the meeting hosted its first discussion/debate session and marked the US FDA's first substantial involvement, spurring the realization that

well-crafted meetings could serve as a positive force for industry/regulatory/academic collaboration. RDD IV also involved manufacturers, contract research organizations, specialist companies and organizations in the first Suppliers Forum. Informal networking was enhanced with social events and "trip" breaks, largely through the efforts of Siân Byron. Adding Steve Farr to the editorial team and Amy Davis as publisher, professionally-typeset proceedings were available for the first time.

In 1996, RDD V could no longer squeeze into a downtown hotel. The plenary lecture was introduced, and with industry support, attracted a high-profile, opinion-leader to kick-off the meeting, which has been a tradition ever since. RDD VII (2000) added thematic session planning and included equipment demonstrations at the Suppliers Forum. Joanne Peart joined the organizing and editorial team, resulting in easier meeting registration and RDD's first professional web presence.

RDD VIII (2002) marked the first time the RDD speaker and poster papers could be searched and downloaded after the meeting. Increasingly, the science and insights presented were being cited widely in scientific journals and trade magazines. RDD continued to coordinate with AAPS INTFG, hosting evening sessions. The result—RDD IX (2004)—was attended by over 640 delegates. Three volumes were required to contain all of the papers presented.

FPD (µg/dose)		kPa	
2	4	13	13
175.2	157.7	52	52
45.6	47.2	2.1	2.1
5.2	4.6	3.9	3.9

Image courtesy of RDD Europe

The addition of RDD Europe

To make meetings more accessible to professionals unable to travel to the US, the organizers collaborated with Valois (now Aptar Pharma) to conduct RDD Europe meetings in the years between the biennial US meetings. This partnership, which began with RDD Europe 2005 in Paris, France, has been successful and enduring. RDD Online provides the academic perspective, unbiased programming, and editorial management while Aptar Pharma brings business insights and manages venue selection and meeting logistics. The result has been an expanding series of European meetings, slightly shorter than the US counterparts, with a distinctly practical tone as well as formal and informal networking and learning opportunities. The meetings are routinely attended by over 400 delegates from more than 30 countries. Aptar Pharma also pioneered the use of workshop sessions. These allow delegates to customize their meeting experience by selecting short, interactive sessions to attend from an ever-expanding menu. The workshops are presented by commercial entities with specific niche expertise relevant to the development of nasal and pulmonary products.

New conference features

RDD Europe meetings have not diminished enthusiasm for the US meetings. RDD X (2006; after which Roman numerals were replaced by the meeting year), introduced “Posters on the Podium (PoP).” From poster abstracts, reviewers selected the most interesting posters for presentation by their authors. PoP has remained very popular because it usually features new investigators and particularly innovative research.

Also in 2006, to mark the 50th anniversary of the commercialization of the pressurized metered dose



Image courtesy of RDD Europe

inhaler, RDD organizers and Virginia Commonwealth University were honored to recognize the contribution of Charlie Thiel to the development of the MDI, creating the “Charles G. Thiel Award,” to be presented at future RDD meetings in the US.

For RDD 2008, the editorial team expanded to include Julie Suman and Paul Young, with an efficient, proprietary, online submission, review and publication management process. Twenty years of RDD meetings had yielded a legacy of 1,253 cutting edge presentations (now 2,041) that could be downloaded with a few clicks! Also in 2008, the organizers teamed with ISAM for a special session on the impact of mucociliary clearance on inhaled drug development. The “twofer” approach was again evident at RDD 2010, presenting with the Product Quality Research Institute about the potential for pharmacokinetics to serve as the sole *in vivo* metric necessary to support a finding of bioequivalence (BE) between inhaled products. Speakers were joined in debate by FDA experts. Due to PQRI sponsorship, the session was audio-recorded and made available online.

New faces and companies at RDD meetings created a need for a current, introductory textbook, so RDD Online worked with Steve Newman to publish *Respiratory Drug Delivery: Essential Theory and Practice*, which coordinated with a web-based training program. At RDD 2012, delegates could choose proceedings in book format or via a custom mobile website and Daniela Traini joined the editorial team. To meet increasing interest from Asia, a senior Chinese State Food and Drug Administration official addressed regulatory requirements for inhalers in China and his paper was published in both Chinese and English. RDD has since continued to provide a forum for non-English speak-

ers. RDD 2014 convened in Fajardo, Puerto Rico and attracted delegates from 29 countries. The conference included an expanded Posters on the Podium session. Approximately 80% of attendees reported working for pharmaceutical companies or suppliers and 20% were from academia and regulatory authorities.

The first RDD Asia

To make RDD more accessible to those in Asia and reduce their travel time, Respiratory Drug Delivery Asia was presented for the first time in 2014. The meeting is jointly managed by RDD Online and Aptar Pharma. Held in November in Goa, India, it was deliberately shorter to keep registration costs affordable, but maintained state-of-the-art presentations, a plenary lecture by Steve Newman, workshops, posters and a technology exhibition. The highly successful, Asia-centric conference attracted 220 participants from 17 countries. Though modest by the standards of recent US and European RDD meetings, RDD Asia 2014 was three times the size of the first RDD meeting in 1988 and appropriately recognized Asia’s emergence as an engine of inhaled and nasal pharmaceutical development and patient care.

The Tenth Anniversary RDD Europe

RDD Europe celebrated its tenth anniversary in May 2015 in Antibes, France, hosting 450 delegates from 31 countries; 61% from Europe, 23% from North America and 16% from the rest of the world’s aerosol community. The conference provided 22 speakers, 65 scientific poster presenters (a record number) and Posters on the Podium.

In addition, 12 of RDD Europe’s signature interactive workshops were offered, enabling each attendee to attend three presentations of their choice. The relaxed atmosphere of

the conference enabled delegates to view posters and the technology exhibit in conjunction with networking lunches. A gala anniversary celebration dinner was also sponsored by Aptar Pharma.

“Aptar Pharma is particularly proud of supporting, and being affiliated with, this major conference. The successful outcome of this tenth anniversary of RDD Europe and feedback from the delegates are a source of great satisfaction for all those involved,” stated Pierre Carlotti, Vice President Marketing and Communication at Aptar Pharma, Prescription, and Conference Coordinator at RDD Europe. “The quality of the contributions this year was outstanding, reflecting major advances in our industry and the importance of this conference, which brings together key players in the respiratory drug delivery sector,” added Dr. Richard Dalby, one of the organizers from the University of Maryland.

Future meetings

It’s no secret where the next meetings will be:

- Respiratory Drug Delivery (RDD) 2016 will be held in Phoenix, Arizona, April 17-21, 2016. IPAC-RS will host a coordinated symposium related to “Meeting the Quality Challenge for Orally Inhaled Drug Products” on April 21-22.
- RDD Asia 2016 will return to Goa, India, November 9-11, 2016.
- RDD Europe 2017 will again be held in Nice (Antibes), France, April 25-28, 2017.

For information about past and upcoming conferences, as well as a variety of resources offered by RDD Online, see www.rddonline.com.

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