CONFERENCE PREVIEW: SMI.LONDON

London, UK, June 25, 2025

Join colleagues from across the inhalation space at SMI.London 2025, the only conference dedicated to soft mist inhalers (SMIs) worldwide. The event will take place on Wednesday, 25 June, 2025, at the Pullman London St Pancras, hosted by Merxin (King's Lynn, UK). This year's conference continues the important conversation on SMIs that began in 2023 and continued in 2024, exploring their growing role in the inhalation market and the benefits they offer to both patients and healthcare providers.

SMIs are quickly becoming the device of choice in inhalation drug delivery due to their low carbon footprint, superior deep lung deposition and versatility. Ideal for both local and systemic treatments, SMIs are user-friendly, easy to formulate for and able to integrate into inhaler portfolios seamlessly, making them a perfect fit for biologic therapies. SMI.London 2025 brings together suppliers and innovators in a dynamic environment designed to inspire new partnerships and growth opportunities in the inhalation drug delivery sector.

BRIEF OVERVIEW

This year's conference will delve into how SMIs are carving out their place in the inhalation market, highlighting the significant benefits they bring to both patients and the pharmaceutical industry. The event will provide an in-depth look at learning how to make, develop, use, file and launch SMIs, exploring the entire product journey from molecular development to finished dosage forms. Attendees will hear from key opinion leaders with extensive experience in inhaled

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drug delivery, gaining insights into the latest advancements and challenges in the field. Highlights of the 2024 conference include:

- An in-depth exploration of SMIs, including their position in the market, environmental impact, industry strategy in a competitive landscape, progress and innovation, and supply chain challenges
- Expert speakers with vast experience in inhaled drug delivery sharing valuable insights during varied presentations and panels
- Exciting sessions with topics ranging from the comparison of SMIs with nebulisers to innovations in customising lung delivery and transforming respiratory care with soft mist biologics.

The event was made possible by the support of founding partners, exhibitors and media partners, and provided a unique platform for professionals to learn, connect and shape the future of SMIs in respiratory care.

WHY SOFT MIST INHALERS?

Advantages Over Traditional Inhalers

Unlike traditional inhalers, SMIs release a slow-moving mist of medication, which is easier for patients to inhale and ensures better lung deposition. This makes SMIs more effective at delivering medication compared with metered dose inhalers (MDIs), which use propellants to create a fast-moving aerosol. The quick burst from MDIs can cause the medication to land in the mouth or throat rather than the lungs, reducing effectiveness.

Because SMIs do not require precise co-ordination between inhalation and device activation, they are significantly easier to use than MDIs, making them ideal for people with limited dexterity, such as children or the elderly. In contrast, MDIs require patients to activate the inhaler while inhaling, which can be difficult for some.

SMIs also offer benefits over dry powder inhalers (DPIs), another traditional inhaler type. DPIs deliver medication as powder and require a forceful inhale to activate, which may not be suitable for everyone, especially those with limited lung capacity due to chronic respiratory diseases. Another advantage SMIs have over DPIs when it comes to the delivery of biologics is that most biologics are naturally liquid formulations, so can be deployed in an SMI with minimal hassle, whereas, for a DPI, the formulation must be dried to make a powder, which can be a difficult and delicate process.

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Sustainability Benefits

Another key factor in the rise of SMIs is that they make a significant contribution towards sustainability in the pharmaceutical industry. Unlike MDIs, which use hydrofluoroalkane (HFA) propellants that are harmful to the environment, SMIs do not rely on chemical propellants. Instead, they use mechanical energy to create a fine mist, greatly reducing their carbon footprint to near zero compared with equivalent MDIs. This makes SMIs a much more environmentally friendly option for inhalation therapies.

Moreover, SMIs provide precise dosing, ensuring that patients receive the exact medication they need, reducing waste compared with other inhalers where medication can be left in the device or incorrectly administered. The design of SMIs typically includes reusable components with replaceable cartridges, which cuts down on plastic waste and the need for disposable inhalers, further reducing the overall environmental impact associated with single-use devices. By promoting reusable inhalers and minimising material waste, SMIs can help address the growing concern of pharmaceutical waste and contribute to meeting the challenge of making sustainable inhalation devices.

SMI.London 2025, being the only conference worldwide devoted solely to SMIs, is dedicated to promoting eco-friendly technology in the inhalation space. The event encourages attendees to connect, fostering collaboration on future eco-friendly projects aimed at improving both care for patients and the impact of therapies on the environment.

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WHY ATTEND SMI.LONDON 2025?

Over the past year, significant advancements have been made in the development and application of SMIs, enhancing drug delivery efficiency and the patient experience. SMIs have become a viable alternative for delivering biologic formulations and their design minimises the need for patient co-ordination and inspiratory effort, optimising lung deposition. As an excellent example of the progress made with SMIs, at SMI.London 2024, two research groups – one from Istanbul and another from Monash University (Melbourne, Australia) – were highlighted for their research on delivering vaccines and biologics via an SMI, including the successful delivery of a covid-19 vaccine.

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SMI.London 2025 will provide a platform for companies within the inhalation technology industry to exchange ideas and best practices. Manufacturers, developers and tech innovators will be able to network, form partnerships and engage in frank discussion of the latest advancements and challenges in SMI design, functionality, manufacturing and commercialisation. This collaboration fosters innovation and helps to accelerate the development of more efficient, patient-friendly inhaler technologies.

Academics, researchers, engineers and scientists can all contribute valuable knowledge and findings on the latest scientific developments in drug delivery, nano-formulation and pharmacology. Through presentations and discussions, SMI.London 2025 will provide a forum for those at the forefront of academia to collaborate with industry leaders to explore new formulations and technologies, potentially leading to breakthrough advancements in SMI devices and treatments.

At SMI.London 2025, industry leaders, experts and innovators will present the latest research, trends and advancements in SMI technology. Sessions will cover key topics, including SMI design, regulatory updates, clinical applications and patient outcomes, which will help attendees to stay ahead of the curve, with sterile filling being introduced as a new topic for this year. Attendees will have access to whitepapers, case studies and expert insights that can support their research, development and implementation of SMI technologies.

SPEAKERS AT SMI.LONDON 2025

PROF DANIELA TRAINI: Exploring Nasal siRNA-Liquid Nanoparticle SMI Therapies

Professor Traini is an expert in respiratory drug delivery, aerosol science and nanoparticle formulation. She is the Chief Scientific Officer at Ab Initio Pharma (Sydney, Australia) and is based at Macquarie University and the Woolcock Institute of Medical Research. A former Australian Research Council (ARC) Future Fellow and National Health and Medical Research (NHMRC) investigator, she has published over 300 papers with around 8,000 citations (h-index 46). Her research spans particle engineering, biologic drug aerosols and nose-to-brain delivery. She collaborates with industry partners, including Aptar Pharma (IL, US), Kindeva (MN, US), Resyca (Enschede, The Netherlands) and MedSpray (Enschede, The Netherlands), as well as serving on the ARC and NHMRC committees.

DR DEBORAH JONES: Seeing Through the Mist – SMI Spray Characterisation

Dr Jones holds a wealth of experience in the orally inhaled and nasal drug product industry, forging client relationships and delivering tailored solutions. Her extensive business development experience and passion for precision instrumentation, regulatory compliance and improving patient outcomes drives her commitment to contributing to the advancement of healthcare globally. Dr Jones completed a PhD in Chemistry at King's College London (UK), specialising in biosensors for clinical applications, and held postdoctoral research positions at both King's College London and Oxford University (UK).

DR WILLIAM GANLEY: Links Between Solution Properties, Spray and Lung Deposition in SMIs

Dr Ganley started his career as a postdoctoral researcher in the Pharmaceutical Surface Science Laboratory at the University of Bath (UK), focusing on advancing physical characterisation and simulation techniques for DPIs. In 2019, he joined Nanopharm (Cwmbran, Wales) as Head of Computational Pharmaceutics, where he led the development of Nanopharm's modelling and simulation platforms. He is now a senior member of the Science & Technology department at Nanopharm, where he supports customers in development and regulatory strategy and manages a portfolio of R&D projects.

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DR MARKO BLOM & DR CHRISTIAN WALK: Innovating Spray Nozzle Technology – How Microfluidic Manufacturing Drives Precision

Dr Blom serves as the Chief Technology Officer at Micronit (Enschede, Netherlands), where he has played a key role since 2005. With a PhD in Applied Physics, Dr Blom has been deeply involved in the development of microfluidic and microelectromechanical systems (MEMS) technologies. His leadership has driven significant advancements in lab-on-a-chip systems, particularly for biomedical applications.

Dr Walk holds BSc and MSc degrees in microsystems engineering from the University of Freiburg (Germany) and a PhD in complementary metal-oxide semiconductor and MEMS pressure sensor technology. With over a decade of experience at Fraunhofer Institutes (Germany), he now leads the drug delivery market segment as Business Development Manager at Micronit.

REMI ROSIERE: Liquid Nanoparticles and SMIs – Extending Formulation and Treatment Options

Dr Rosiere is a pharmacist by training and obtained a PhD at Université Libre de Bruxelles (Belgium), where he still holds a position as a lecturer. He has been the lead researcher in charge of the InhaTarget spin-off project since its beginning. This project led to the launch of the pharma start-up InhaTarget Therapeutics (Brussels, Belgium), which he co-founded in 2019. Dr Rosiere is the current Chief Scientific Officer of InhaTarget Therapeutics and is responsible for all R&D aspects of the company. He specialises in drug formulations for inhalation (e.g. advanced drug delivery systems, controlled-release formulations, carrier-based and carrier-free formulations, particle engineering, nanomedicine) and non-clinical development (analytical development, *in vitro* and *in vivo* studies, animal models).

DR PHILIPPE ROGUEDA: Aerosolisation of Wegovy With MRX004

Dr Rogueda co-founded Merxin Ltd in 2015. His expertise spans multiple facets of the inhalation field, particularly DPIs and SMIs. His passion lies in the development of SMI technology, particularly for biologics, which he believes hold immense potential to revolutionise the delivery of therapeutic treatments. With over a decade of experience in the inhalation sector, Dr Rogueda's career includes significant roles at organisations such as Actavis (now Allergan), Novartis and AstraZeneca, along with academic contributions as an adjunct senior lecturer at Monash University (Melbourne, Australia). His deep knowledge and innovative approach to inhalation technologies make him a key figure in advancing medical device development for improved drug delivery systems.

LAURY LIVEMONT: Sterile Filling of SMI Cartridges

Ms Livemont is an experienced project manager at Unither Pharmaceuticals (Paris, France), where she has contributed to various roles over the past several years. Currently, she serves as the Euroject Project Manager, a role she has held since September 2021. With over 13 years at Unither Pharmaceuticals, Ms Livemont has built a strong background in pharmaceutical development and project management. She holds a Diplôme

SMI.LONDON
Pullman London St Pancras 25 June 2025

SMI.London 2025: the only event dedicated to Soft Mist Inhalers on this planet. Let's transform inhaled therapies.
Register now to attend:

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d'Université in Managing a Responsibility Center from the Institut Français de Gestion (Paris, France) and an engineering degree in Chemistry from École des Hautes Études d'Ingénieur (Lille, France), where she specialised in formulation.

DR NICHOLAS BUCHMANN: Expanding the SMI World – Options and Applications

Dr Buchmann holds a PhD in Biomedical Engineering from Canterbury University (New Zealand). After spending several years as a postdoctoral researcher in the field of Aerospace Aerodynamics at Melbourne University (Australia) and Munich University of Armed Forces (Germany), he has gained significant experience in the development of smart nebuliser and inhalation devices for inhaled combination products. He has extensive knowledge in medical device development and managing complex development programmes and portfolios for inhalation drug-device-combination products. Dr Buchmann held roles at Vectura (Chippenham, UK) as Programme Manager for the development of generic MDIs and at Pari GmbH (Starnberg, Germany) as Technology Manager for the nebuliser and eFlow platform. In his current role as Chief Technical Officer at Resyca, he is responsible for the development of next-generation soft mist inhalers, pharmaceutical development and programme management.

EXHIBITORS AND ONLINE ACCESS

SMI.London 2025 is excited to have 12 exhibitors already signed up, eager to showcase their latest innovations. There is still space available, so do not miss out – register now at **www.smi.london** or reach out to the conference organisers at **info@smi.london** for more information.

SMI.London 2025 is an in-person event only. However, following the event, the organisers will post the speakers' slides on the conference website for all those who were unable to attend.

"SMI.LONDON 2025 IS MORE THAN JUST A CONFERENCE – IT IS A UNIQUE OPPORTUNITY TO SHAPE THE FUTURE OF SMI TECHNOLOGY."

FINAL THOUGHTS

SMI.London 2025 is more than just a conference – it is a unique opportunity to shape the future of SMI technology. As the future of inhalation therapy continues to evolve, strategic collaboration and knowledge sharing are crucial. Do not miss the opportunity to be part of the conversation and help shape the future of inhalation therapy.

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