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180 Drug Delivery

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PULMONARY & NASAL DRUG DELIVERY

Interview: Integrating Phillips Medisize and Vectura's Operations

In this interview, **Phillips Medisize**'s **Charlie Schumacher** and **Sandy Munro** discuss the company's progress on its integration of **Vectura**, covering aspects such as cultural alignment, technical innovation and the evolving role of CDMOs in the inhalation landscape.

Q To begin with, could you provide an overview of the combined offering Phillips Medisize presents to the industry in the inhalation space following its acquisition of Vectura?

CS The integration of Vectura has enabled us to deliver a truly comprehensive service in the inhalation space. We can now support customers from early formulation and combination product development through to commercial launch, all within a single organisation. This structure helps us to reduce risk and complexity for our customers. Since the acquisition, we've seen strong engagement from the market – including from organisations that had never worked with either company before. This enthusiastic response underscores the value and relevance of our combined capabilities.

Additionally, as we integrate Vectura into the Phillips Medisize R&D organisation, we are discovering that the Vectura acquisition not only complements our parenteral drug delivery expertise but also may, over time, provide unique advantages to our customers in the *in vitro* diagnostic and medtech industries. Plus, Phillips Medisize's platform technologies and capabilities are already adding value that can ultimately benefit patients. For example, our R&D team's software engineering capability is already enhancing technology roadmaps for future inhalation devices.

SM Bringing together all the necessary expertise required to develop an inhalation product means that we can understand the whole system. This facilitates rapid product development, including the resolution of issues when they sometimes inevitably arise. Our focus is on helping our customers bring new therapies to market so that patients can benefit from innovative treatments sooner. With more than 25 years' experience in inhaled product development, and 13 inhaled medicines launched by our partners and licensees, we offer practical, proven solutions across a wide range of molecules, devices and delivery routes.

Q Where are you in the process of integrating Phillips Medisize's commercial manufacturing capabilities with Vectura?

CS We've made rapid progress in developing our manufacturing capabilities. Construction is underway on a new multidose dry powder product manufacturing line capable of commercial scale mixing, filling, assembly and packaging. With these capabilities built internally, we can now support customers through every stage of development and manufacturing, without the need to hand off to external organisations, meaning that we can meet the needs of both early-phase and commercial programmes.

Q How important is culture when bringing two companies together, and how well are the cultures of both organisations coming together during the integration process?

CS Cultural alignment is absolutely fundamental when bringing two companies together. In this case, both organisations were mission-driven and shared a focus on solving technical problems to help patients live healthier, more productive lives. Even though we expressed our missions differently, the underlying values and sense of purpose were remarkably compatible from the outset, which was reinforced by our commitment to Principle Based Management, which emphasises value-driven decision-making and long-term value creation.

SM What's been rewarding is how both teams have worked hard to learn from each other and adopt the best of both organisations' ways of working. We've made a conscious effort to cross-pollinate ideas and take new approaches on board. Rather than simply assimilating, we're building something stronger by combining the strengths of both sides. This willingness to adapt and collaborate is making the new organisation even better than either company was on its own.

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Q How has the role of CDMOs changed over recent years, and how is Phillips Medisize positioned within the inhalation landscape post-integration?

SM The inhalation landscape has changed dramatically over the past decade. Where it was once dominated by a handful of large companies focused on major diseases – primarily asthma and chronic obstructive pulmonary disease – there's been a shift toward addressing unmet needs in rarer diseases and developing high-value, lower-volume products, including biologics. CDMOs are now expected to offer more sophisticated capabilities, particularly for biologics and complex formulations, and the sector is seeing significant consolidation.

CS We're responding to these trends by expanding our skill set and global resources. Whether supporting biotech companies in moving quickly to the proof-of-concept stage or enabling large pharmaceutical companies to overcome technical challenges, our team has the experience and flexibility to help customers address the needs of patients in new and meaningful ways.

Q What are some of the innovations and efficiencies that have emerged from combining Phillips Medisize's commercial manufacturing capabilities with Vectura's formulation expertise?

SM Vectura has a long history of innovation in both device and formulation development. Our platforms include our open-inhale-close dry powder inhaler with only three simple user steps, and the FOX™ Vibrating Mesh Nebuliser, which offers precise lung deposition, minimised waste and digital connectivity for monitoring adherence. By combining this expertise with Phillips Medisize's commercial manufacturing capabilities, we can reduce the need for tech transfers and can minimise the risk of inefficiencies when transferring knowledge and processes across organisations. This helps our customers bring therapies to market more efficiently so that patients can benefit from innovative treatments sooner.

Q What sets your scientific approach apart and how does that differentiation help your customers bring therapies to market more effectively?

SM Our R&D approach is distinguished by being device- and platform-agnostic. We're not limited to a single technology or delivery route, which means that we can advise customers on the most suitable path for their molecules and target patient populations. This flexibility is underpinned by deep analytical expertise and a focus on practical, patient-centric solutions. Customers can bring us their molecule and their target patient group, and we'll help them develop, manufacture and launch the right combination product.

Q In your opinion, what are the most significant trends currently shaping the future of inhalation drug delivery?

SM The next frontier of drug delivery is enabling the delivery of biologics and other advanced

Charlie Schumacher

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Charlie Schumacher, Vice-President, Global Innovation and Development UK, at Phillips Medisize, is responsible for the day-to-day leadership of the Phillips Medisize inhalation team, formerly Vectura, which was acquired in early 2025 to expand the capabilities of the company's global R&D organisation. He joined the company in 2022 to lead research and development for the North America region. Prior to Phillips Medisize, Mr Schumacher spent nearly 30 years in leadership roles within the medical device, high-tech and durable consumer product industries, successfully advancing product development, commercialisation, operations and mergers & acquisitions in global organisations including Medtronic and Honeywell.

Dr Sandy Munro

Chief Inhalation Scientist

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Sandy Munro, PhD, Chief Inhalation Scientist at Phillips Medisize, became part of the company through its acquisition of Vectura in early 2025. He had been at Vectura since 2008 in a variety of pharmaceutical development leadership roles that focused on dry powder inhaler and smart nebuliser product development, as well as leading novel inhaled technology development programmes and defining the company's technology strategy. Prior to Vectura, Dr Munro spent 20 years at GSK, joining as an analytical scientist in 1987 and progressing through a number of roles to become GSK's Global Director of Inhaled Science and Technology. He holds a chemistry degree from the University of Edinburgh (UK) and a PhD in synthetic organic chemistry from the University of East Anglia (UK). He is an honorary life member of The Aerosol Society of Great Britain.

"LEVERAGING PHILLIPS MEDISIZE'S DEEP EXPERTISE IN DEVICE DESIGN AND MANUFACTURING ALONGSIDE VECTURA'S ADVANCED FORMULATION AND INHALATION SCIENCE CAPABILITIES, WE CAN NOW OFFER COMPREHENSIVE R&D SUPPORT ACROSS THE FULL SPECTRUM OF INHALED DRUG DELIVERY."

therapies via inhalation. This is a significant step beyond traditional approaches, as it requires not only getting the medicine into the lungs, but also ensuring that it crosses biological barriers, reaches the right cells and is delivered into the cell and released at the right time.

Another major trend is the rise of nasal delivery. Around a third of new respiratory products are now being developed for administration via the nasal route, which opens up possibilities for systemic delivery and even direct-to-brain therapies for conditions like Alzheimer's disease and other neurological disorders.

We're also seeing a growing trend towards the use of inhaled routes for non-respiratory diseases, such as central nervous system conditions. Our goal is to help customers bring the next generation of inhaled therapies to patients more effectively, whether that means supporting complex biologics, enabling new delivery routes or providing the technical expertise needed to navigate the challenges of modern inhaled drug development.

Q How does the acquisition of Vectura reflect the broader vision for Phillips Medisize, and how does that vision serve your customers?

CS The integration of Vectura reflects our commitment to expanding the breadth and depth of our offering across the healthcare landscape. Leveraging Phillips Medisize's deep expertise in device design and manufacturing alongside Vectura's advanced formulation and inhalation science capabilities, we can now offer comprehensive R&D support across the full spectrum of inhaled drug delivery. Our vision is to be the resource customers turn to when they want to find the right solution and delivery strategy for their API, regardless of modality.

Q How do you balance speed, scale and scientific rigour, especially in a space as specialised as inhalation?

CS Our comprehensive capabilities allow us to help reduce risk, time and cost by keeping expertise and processes within our organisation. By harnessing our existing advanced device platforms and manufacturing infrastructure to support our customers, we can leverage proven solutions as a starting point, meaning that we're not starting from scratch with every project. This helps accelerate timelines while still allowing us to tailor our approach to each customer's needs.

SM Flexibility is essential. We work with organisations of all sizes and at all stages of development, adapting our support to their specific requirements, budgets and timelines. Our team brings together decades of experience with formulation and device technology, so we're able to provide strong, practical advice. Ultimately, our goal is to help customers move efficiently from concept to commercialisation.

Q If you had to define the role of Phillips Medisize in shaping the future of inhalation therapies, what would it be, and how will customers benefit?

SM We help bring innovative solutions to problems the market hasn't yet solved, whether that's enabling delivery across the blood-brain barrier, formulating complex biologics or supporting new therapeutic modalities.

CS We see ourselves as a resource and contributor to the entire scientific community. We actively collaborate with universities and industry forums, sharing knowledge and helping to shape the broader inhalation landscape. In so doing, we can help to maximise the probability of success for our customers and, ultimately, for the patients who rely on the new therapies being developed.

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