## Shaping the evolution of capsules for the pharmaceutical industry for more than a century

Having launched the world's first non-animal-based capsules, Qualicaps is pioneering research into targeted-delivery capsule materials while also offering state-of-the art pharmaceutical processing equipment.



"As a first mover and innovator in this field, we are committed to expanding HPMC worldwide in addition to gelatin capsules. There is an emotional component in moving away from gelatin, an animal-based product, and HPMC may overtake

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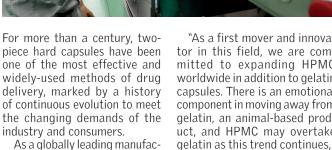
Today, Qualicaps continues to supply state-of-the art machinery defined by the highest standards of Japanese monozukuri (craftsmanship), offering clients a 'one-stop-shop' service that puts the company well-and-truly ahead of its competitors. One of the equipment division's latest

Mitsubishi Chemical Holdings Corporation. The backing of a global heavyweight has served as a monumental gamechanger for Qualicaps in terms of R&D, innovation and manufacturing, which can now be strongly informed by Mitsubishi Chemical's capabilities in materials science and the latest Industry 4.0 technologies such as automation and the Internet of Things (IoT).

"We already had innovation, good people, and good discipline in our company, but now we can add the experience and knowledge from Mitsubishi Chemical, which has enormous material resources and innovative processes to share," adds Mr. Matsumura.

"They have a digital transformation team to leverage IoT. We need to adopt a vision of how to use these digital technologies in our health capsule manufacturing process. This partnership gives us the potential to adopt cutting-edge manufacturing capabilities that most mid-sized companies don't have."

With its current R&D efforts focusing on new targeted-deliverv capsule materials that enable the contents to travel past the stomach and into the small intestine, 124-year-old Qualicaps will continue to play a major role in shaping the evolution of the pharmaceutical industry for the next century and beyond.



As a globally leading manufacturer of two-piece hard capsules and pharmaceutical processing equipment with more than 120 years of experience, Qualicaps has and continues to play a crucial role in that evolution thanks to the pioneering innovation that has enabled the company to develop several world-first products, such as the first-ever preservative-free gelatin capsule.

With the latest industry and consumer demands prompting a shift away from capsules made from materials derived from animal products, Qualicaps has responded by launching several new animal-free solutions to the



market, including: Quali-V, the world's first vegetal capsule; Quali-V Extra Dry, a cellulose capsule offering extremely low moisture content; and Quali-V-I, the world's first hydroxypropyl methylcellulose-based inhalation capsule (HPMC).

says Qualicaps president, Sei-

"We have shifted our investment focus to increase our capacity to produce HPMC capsules. Our parent company, Mitsubishi Chemical Corporation, is backing us with financial support and accumulated material R&D capability for this, which shows a commitment to inventing the next generation of non-animal-based capsules."

Initially, the company focused on manufacturing machinery for use in-house, before leveraging that knowledge gained to produce a range of pharmaceutical equipment for filling, sealing, weighing, and printing.

innovations is a printing machine adopting laser printing technology that allows for clear branding on the capsule, which could lead to a significant reduction in drug counterfeiting.

"From the customers' perspective, we represent a one-stop shop for all their capsule-related needs," Mr. Matsumura explains. "In the past, customers would have needed two or more different suppliers to produce a finished product. We provide a turnkey solution for companies wishing to manufacture capsules, and this all-in-one product offering gives us our competitive advantage."

Since 2013, Qualicaps has been a group company of the



