

Gerresheimer – Innovating for a Better Life

Gerresheimer is a leading global partner to the pharma and healthcare industry. With specialty products made of glass and plastic, the company contributes to health and well-being. Gerresheimer is represented worldwide and produces with around 10,000 employees wherever its customers and markets are. With plants in Europe, North and South America and Asia, Gerresheimer generates sales of around €1.5 billion. Its wide range of products includes pharmaceutical packaging and products for the simple and safe administration of medicines: Insulin pens, inhalers, micropumps, prefillable syringes, injection vials, ampoules, bottles and containers for liquid and solid medications with closure and safety systems as well as packaging for the cosmetics industry.

Gx Biological Solutions Expands Its Services

In this interview, Stefan Verheyden, Global Vice-President Gx Biological Solutions at Gerresheimer, introduces Gx Biological Solution, a newly established customer and biotech-oriented team at Gerresheimer. He also gives an insight into the newly launched online service tool gGuide, which helps customers find the best product solution in Gerresheimer's portfolio.

Q: Gerresheimer established a new focus team:
Gx Biological Solutions. Why was the team founded?

A: We have become one of the world's leading partners to the pharmaceutical and healthcare industries. Our broad portfolio includes many pharmaceutical packaging products - including safe drug delivery systems such as insulin pens, inhalers, prefilled syringes, vials, cartridges, bottles and containers for liquid and solid drugs with closure and safety systems. Basically, we have been serving the biologics market with our solutions for many years. However, in recent years we have observed an increasing diversification of this market, the industry leaders and their requirements. Therefore, we would like to take this development into account and strategically focus more on the specific support of biopharmaceutical companies. Hence, we have set up our Gx Biological Solutions team in a market-oriented way in order to support customers in the best possible way in choosing a suitable primary packaging material or device through our expertise and a broad range of services.

Q: What are the challenges in the field of biologics?

A: The development of proteins, monoclonal antibodies, or even cell and gene therapies are frequently accompanied by challenges that are often not apparent at first glance. Proteins, for example, are amphiphilic, surface-active molecules whose intact glycosylation patterns are essential for their subsequent function in the patient's body. In addition, specific sensitivities to individual components or materials of primary packaging must sometimes be taken into account, which sometimes only become apparent during storage studies. Other drugs, for instance, contain phosphate-based buffer solutions, which can interact with glass surfaces over the storage period and lead to the formation of glass flakes. This risk can be avoided by using special coatings or even polymer-based packaging materials. In any case, indication- and user-specific characteristics have to be taken into account. Some diseases make it very difficult for patients to administer their medications independently at home, such as rheumatoid arthritis. Opening a cap then quickly becomes a challenge in everyday life. All this has a lasting effect on the choice of a suitable packaging material or device.

Q: What is unique about the Gx Biological Solutions focus team?

A: The idea of Gx Biological Solutions is to establish an interdisciplinary team with global resources and cross-divisional product expertise to advise our customers. The team supports companies during development and beyond throughout the drug product lifecycle by providing customised application and indication-based recommendations. The short-term provision of platform solutions as well as product sample quantities for early clinical studies, the performance, evaluation and interpretation of functional or laboratory tests or the development of customised solutions are thus also within Gx Biological Solutions' area of expertise.

Q: What characterizes the market as different from the regular gerresheimer clientele?

A: We are referring to a multi-layered market that is growing and thus offers many opportunities. Already, biotechnologically produced drugs account for around 40% of total drug pipeline developments. And the trend is rising. Especially due to the breakthrough of RNA-based drugs and the establishment of cell and gene therapies, the market will diversify further in the coming years. Many start-ups and medium-sized companies are already advancing the development of novel drugs as strongly as never before. The approach of our Gx Biological Solutions team is therefore to specifically facilitate access to suitable packaging solutions and medical products for these companies as well, and to enable them to benefit from our expertise. Our pharmaceutical product portfolio currently includes more than 1600 product variants from a total of 111 product families. Especially for new customers, this can be slightly overwhelming. At Gx Biological Solutions, we are therefore pursuing the approach of assigning suitable product variants to therapy and indication fields and their





sensitivities, thus making our portfolio more transparent. In a first step, we have therefore implemented the digital product selector "gGuide" on our website. This offers all interested parties an initial overview of suitable product recommendations as well as the opportunity to contact us in an easy and non-binding manner.

Q: How does the gGuide work?

A: With the gGuide, we are pursuing a drug-centric and, above all, customer-centric approach that can address the individual needs of an inquiry. Therefore, the first question is not whether they are looking for a vial or a syringe, a plastic or a glass product. Instead, users answer whether the product is a small molecule, a biologic or another active ingredient, such as homeopathic or phytopharmaceutical products. In fact, the focus is on the drug developed by our customers. In the following questions, the gGuide then inquires:

- about the therapeutic area in which the drug is to be used,
- about the way in which the drug will be formulated and administered,
- · about the intended quantity per target market,
- by specific packaging configurations such as RTF® (ready to fill) or RTS® (ready to sterilise),
- as well as by known properties and sensitivities of the drug.

The process ends with a selection of the best fitting packaging solutions from our standard portfolio. If we are unable to recommend a product based on the selection criteria, the customer is directed to a contact form so that the request can be detailed to our team. In the subsequent step, our customers then receive more in-depth advice on the possible configurations of a product. Here, if desired, offers can be worked out based on individual needs.

Q: What are the advantages of the gGuide for Gerresheimer's customers?

A: The gGuide is not only suitable for companies in the biotech sector. Anyone who does not yet have a precise idea of what kind of packaging they are looking for can use the gGuide for a quick, non-binding consultation. Our entire pharmaceutical, biopharmaceutical and veterinary product range is stored in the gGuide, as well as the option to request customer-specific solutions. Our global expertise is thus bundled in one tool and digitally accessible to our customers around the clock with just

a few clicks thanks to a targeted question structure. The gGuide is therefore intuitive, time-efficient and at the same time flexible to use.

Q: Does the gGuide rival the sales department?

A: Quite clearly, no. It even supports the sales department in its work. The gGuide is a tool for making initial contact. However, our customers can easily make a very precise inquiry, which our sales department can then process efficiently according to the requirements. Our advice is thus tailored to the individual needs of a customer inquiry from the outset. In addition, we also learn from our customers. Based on the inquiries we are given, we can obtain a even better understanding of the market and its requirements, further enhance our products, and intensify our cooperation.

Q: Which further developments of the gGuide does gerresheimer plan for the future?

A: First of all, we would like to see how the service is used and, if necessary, adapt it and integrate further functions. In the future, it would also be conceivable to delve further into the various product areas - in other words, to set up a separate selector for vials, for prefillable syringes or for the configuration of a medical device. There are definitely some considerations in the pipeline. So, stay tuned.



Stefan Verheyden

Stefan Verheyden holds a degree in Chemistry and has been active in pharma- and biopharma industry for over 25 years. Started his career in Product Management Lab Chemicals at Merck

subsidiary in Belgium, before moving into leading Sales and Business Development roles in production chemistry, raw materials and API's at 2 major players in the industry. After 20 years he moved into the pharmapackaging industry taking over a global role as Senior Vice President at one of the players within the primary packaging industry. Moved to Gerresheimer almost 5 years ago, after heading the global syringe business for almost 4 years he has taken ownership over a newly setup unit – Gx Biological Solutions – supporting the fast growing biological market segment through dedicated expertise, system integration and solution offering.