GRÜNENTHAL GROUP Press Release



Grünenthal obtained a Red Dot Product Design Award for its innovative system for post-operative pain management

Aachen, Germany, May 29, 2017. The Grünenthal Group, an R&D-driven, privately held international pharmaceutical company with headquarters in Aachen Germany, announced today that it has received the renowned Red Dot Product Design Award in the category life sciences and medicine for an innovative system for post-operative pain management. The "Red Dot" is given for good design and innovation. Patients are able to self-administer a pain drug using this system. The product has been available to patients in Western Europe since the first half of 2016.

In the international Red Dot Award competition, each year an independent jury of experts selects the best products in terms of good design and innovation. Manufacturers and designers from all over the world submit originals of their latest products in the hope of being awarded the sought-after distinction "Red Dot". Specialized design experts from various subject areas are members of the 40-strong jury. Innovation, formal quality, functionality and ecological compatibility are just some of the criteria on which the decision is based.

As a global leader in pain, Grünenthal is offering a wide range of products and support for physicians and patients. The award winning product is used in hospitals only and innovatively facilitates the handling of patient-controlled analgesia in post-operative pain. The non-invasive system is intended to give patients the possibility of easier mobilization.

Jan-Uwe Claas, Head of Marketing EU, said: "Zalviso® is one of our four to five new products which we want to deliver by 2022 in high unmet medical need areas. It has proven to be very valuable to patients also because of its patient-focused design. This innovative system also demonstrates that we have the capabilities to drive a complex product successfully through the European registration process and to bring it to the market."

The product was developed and designed by AcelRx, a specialty pharmaceutical company focused on the development of innovative therapies in moderate-to-severe acute pain in medically supervised settings. Pamela Palmer, Chief Medical Officer and Co-Founder, commented: "The Red Dot Product Design Award is an honor for us. It acknowledges both the device design and functionality created to enhance the patient's post-operative pain management experience."

About Grünenthal

The Grünenthal Group is an entrepreneurial, science-based pharmaceutical company specialized in pain, gout and inflammation. Our ambition is to deliver four to five new products to patients in diseases with high unmet medical need by 2022 and become a € 2 billion company. We are a fully integrated research & development company with a long track record of bringing innovative pain treatments and state-of-the-art technologies to patients. By sustainably investing in our R&D above the industrial average, we are strongly committed to innovation.

Grünenthal is an independent, family-owned company headquartered in Aachen, Germany. We are present in 32 countries with affiliates in Europe, Latin America and the US. Our products are sold in more than 155 countries and approx. 5,500 employees are working for the Grünenthal Group worldwide. In 2016, Grünenthal achieved revenues of approx. € 1.4 bn.

More information: www.grunenthal.com. Follow us on LinkedIn "Grunenthal Group".

About AcelRx Pharmaceuticals, Inc.

AceIRx Pharmaceuticals, Inc. is a specialty pharmaceutical company focused on the development and

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commercialization of innovative therapies for the treatment of moderate-to-severe acute pain. The product is approved in the EU and is investigational and in late-stage development in the U.S. Grünenthal Group holds the rights for in Europe, where a commercial launch has begun. More information: www.acerx.com.

About the Red Dot Design Award:

In order to appraise the wide scope of design in a professional manner, the Red Dot Design Award is broken down into three distinct disciplines: Red Dot Award: Product Design, Red Dot Award: Communication Design and Red Dot Award: Design Concept. The Red Dot Award is organized by the Design Zentrum Nordrhein Westfalen in Essen, Germany, and is one of the largest design competitions in the world. In 1955, a jury convened for the first time to assess the best designs of the day. The name and brand of the award were developed in the 1990s by Red Dot CEO. Professor Dr. Peter Zec. Since then the sought-after Red Dot is the revered international seal of outstanding design quality. Further information: www.red-dot.org.

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