What is the significance of existing BFR patents?

What is a patent?

A patent in the U.S. gives the inventor the right to exclude others from making, using, offering for sale, or selling an invention or importing it into the U.S. [1]

A patent is an exclusive right, meaning a patent owner in any country such as the U.S., France or elsewhere can decide who can use the patented invention and how, and can prevent third parties from exploiting it commercially in the country.

If anyone infringes on a patent by using, making, offering for sale, selling, or importing into a country a product covered by the patent, then legal action may be initiated. Therefore, for ethical reasons and to protect against legal liability it is important that patent rights be respected.

Who owns rights to key BFR patents?

Key inventions and patents for Blood Flow Restriction (BFR) and Ischemic Preconditioning (IPC) were originated by a research team led by Dr. James McEwen, a Member of the U.S. National Inventors Hall of Fame. https://www.invent.org/inductees/james-mcewen

Through agreements with Dr. McEwen, Delfi Medical Innovations holds exclusive rights to these key inventions and patents for BFR and IPC in the U.S. and Europe and elsewhere. A listing of these patents may be found at https://www.delfimedical.com/patents. Some of these key inventions and patents are highlighted below:

Limb Occlusion Pressure (LOP)

The team led by Dr. McEwen invented the concept of Limb Occlusion Pressure (LOP). LOP is essential for providing personalized BFR and IPC. Delfi has exclusive rights to numerous issued U.S. patents and European patents for the automatic measurement of LOP for BFR and IPC, for example RE50013 and EP3171794.

Safe Ischemic Preconditioning (IPC)

Ischemic preconditioning (IPC) is safest and most effective when it is personalized. Delfi has exclusive rights to issued IPC patents for BFR in the U.S. and Europe and elsewhere, for example US10646231 and EP3755243.

Accurate Autoregulation

Accurate surgical-grade autoregulation of pressure is key to ensuring the delivery of known, consistent, and repeatable pressure stimulus for BFR and IPC. Delfi has the exclusive rights to numerous inventions and patents that achieve accurate, validated, surgical-grade autoregulation for BFR. Patented autoregulation methods and apparatus used exclusively by Delfi may be found at https://www.delfimedical.com/patents. Autoregulation based on these patents has been independently validated and is used thousands of times daily.

Significance of BFR patents

An issued BFR patent in the U.S., France or any other country gives the inventor the right to exclude others from making, using, offering for sale, or selling a product employing the invention or importing such a product into the country.

At present, no company other than Delfi has exclusive rights to key BFR patents issued in the U.S. and Europe and elsewhere. To protect against potential legal liability, and to assure that equipment based on those patents operates safely and effectively, it is critical that patent rights be respected by BFR equipment users, manufacturers, sellers and importers.

Note: Only issued patents have legal significance. Any claim that a party has a 'patent pending' only provides notice that the party is actively seeking patent protection, but a patent may never be granted by a patent office.

[1] Managing a patent. United States Patent and Trademark Office - An Agency of the Department of Commerce. (2024, February 7). https://www.uspto.gov/patents/basics/manage