



Press release

# Bactiguard receives research grant from Vinnova for developing vascular stents

In collaboration with researchers at Karolinska Institute, Bactiguard has been awarded a research grant of SEK 1.5 million for the development of noble metal-coated stents. The purpose of the project is to reduce the risk of thrombosis in connection with interventions in the bloodstream.

"Stents save lives and are used in both acute care and as a preventive measure of for example heart infarction and stroke. At the same time, the treatment leads to a greatly increased risk of thrombosis formation (blood clotting) in the stent, which is currently managed by prescribing the patient double doses of anti-platelet therapy for several months. This in turn leads to an increased risk of bleeding and gastrointestinal complications", says Professor Staffan Holmin who leads the research team at Karolinska Institute.

"By coating the stents with Bactiguard's technology, we hope to reduce the risk of thrombosis in the stent during the acute- and subacute phase and thereby reduce the need for drugs. This would in turn lead to fewer complications and reduced suffering for the patients and make it possible to more safely conduct secondary interventions during the disease period. These secondary interventions are currently associated with great risk because the patient is on blood-thinning drugs, which increases the risk of bleeding," continues Staffan Holmin.

Stents are used when blood vessels in the heart or nervous system need to be widened to allow the blood to pass freely. They are used both in acute conditions and for preventive purposes, for example; constrictions of the coronary arteries to avoid heart attacks, vasoconstrictions in the brain and neck vessels to reduce the risk of stroke and aneurysms to prevent brain haemorrhage.



After the procedure, the patient receives high doses and combinations of drugs that suppress platelet activation, which in turn increases the bleeding tendency. The stent consists of metal wires where platelets attach within minutes of the procedure, with the risk of thrombosis



forming and leading to serious complications such as heart attack or stroke. The thrombi being formed in the stent can also detach, travel with the blood stream and cause vessel occlusion that may lead to infarctions. After 6-12 months, the surrounding tissue has covered the stent and the risk of thrombosis decreases.

Bactiguard's project on studying reduction of thrombosis risk in the noble metal coating of stents, was recently awarded SEK 1.5 million in research grants from Vinnova. The grant makes it possible to carry out advanced experiments to study both efficacy and safety of the method.

It was recently announced that 16 projects that promote better health will share just over SEK 41 million in the innovation programs Swelife and Medtech4Health's joint call. Competition was fierce - 122 projects applied for funds, 106 went further to assessment and 16 were finally selected, of which Bactiguard's project in collaboration with Professor Staffan Holmin's research group was one.

The call "Collaborative project for better health" is aimed at collaborations between health and medical care, academia / institutes and industrial partners, within the framework of the two strategic innovation programs Swelife and Medtech4Health. The purpose is to contribute to improved health, increased sustainable growth in Sweden and strengthen international competitiveness.

The projects financed in "Collaborative projects for better health" shall be based on solutions that are innovative and can be developed into new innovations. It can be new products, services, processes or other quality or value-creating solutions. The proposed solutions should be expected to lead to improved prevention, diagnosis, monitoring or treatment of diseases.

## Professor Staffan Holmin

Staffan Holmin is a professor of clinical neuroimaging at the Department of Clinical Neuroscience, Karolinska Institute and a senior physician in neuroradiology at the Karolinska University Hospital. His research focuses on, among other things, how microcatheter techniques in combination with various imaging techniques can be used to diagnose and treat stroke and other serious diseases.

# Swelife

Swelife supports collaboration between academia, business and healthcare, with the aim of strengthening life science in Sweden and improving public health. It is a strategic innovation program that is funded by the Government via the Innovation Authority Vinnova and by the program's participating parties.

#### Medtech4Health

Medtech4Health is a national strategic innovation program in medical technology financed by Vinnova. The program should be a catalyst for implementing more medical technology ideas in healthcare, improving efficiency in health and medical care and strengthening the MedTech industry.

### For further information, please contact:

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# **About Bactiguard**

Bactiguard is a Swedish medical device company with a mission to save lives. To achieve this mission, we develop and supply infection prevention solutions which reduce the risk of healthcare associated infections and the use of antibiotics. This way, we save significant costs for healthcare and the society at large.

The Bactiguard technology prevents bacterial adhesion and biofilm formation on medical devices. Bactiguard offers the technology through licence agreements and our BIP (Bactiguard Infection Protection) portfolio of products. Through our licence partner BD, urinary catheters with Bactiguard's coating are market leading in the USA and Japan. Bactiguard's own product portfolio of urinary catheters, endotracheal tubes and central venous catheters prevent some of the most common infections, which appear in the urinary tract, the blood stream and the respiratory tract.

Bactiguard is in a strong expansion phase in the European markets, China, India and the Middle East as well by establishing license agreements in new therapeutic areas. The company has about 70 employees around the world. Its headquarters and one of two production facilities are located in Stockholm, the other one in Malaysia. Bactiguard is listed on Nasdaq Stockholm.

Read more about how Bactiguard saves lives at www.bactiguard.com