



Bioresorbable material and method for coating bioresorbable materials

Problem

Bioresorbable implants made from poly-lactide are used today in a large variety of surgical practices. Bioresorbable materials slowly dissolve and digest in the human body, such that a second operation to remove the implant is not needed. Bioresorbable stents are coil-shaped implants that are introduced in the urinary tract or artery after operation to keep the duct open. Blood-clot-formation and slow healing are, however, severe problems with stents.

Invention

The new invention relates to a simple way to introduce biologically active compounds and drugs as a multi-layered coating onto stents. The purpose is to provide a versatile method, which give homogeneous layers onto bioresorbable materials of complex shape, and into which the amounts of bioactive compound can be controlled.

Solution

VTT has applied a simple technique to deposit biologically active molecules, such as Heparin and growth hormone, via polyelectrolyte layers on the surface of poly-lactide materials. The method uses the polyanionic nature of biological compounds to form a multi-layered structure of polyelectrolytes.

VTT is looking for an industrial partner to commercialize the invention.



Why partner with VTT?

10 reasons for technology partnering with VTT

1. Key factor in Finland's success story with a track record to prove it
2. Licensing and co-venturing opportunities
3. Portfolio of more than 1,000 patents and inventions
4. New business and product concepts based on strong IP and world class research
5. Combined experience of more than 2,000 motivated researchers in eight focused areas of technology
6. Active member in hundreds of scientific & business communities
7. Excellent track record as coordinator and partner in EU projects
8. Collaboration with TOP 50 R&D companies in Finland
9. Global R&D partnership with 50 Fortune 500 companies
10. Market driven multi-disciplinary solutions

Additional information

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