



Topic

HEALTH.2011.2.3.1-5: Development of tools to control microbial biofilms with relevance to clinical drug resistance.

Funding Scheme

Collaborative Project (Small or medium-scale focused research project)

Project coordinator

Amsterdam University:
Academic Medical Center

Project Duration

October 2011 – September 2016

Infections by biofilm-forming microorganisms on indwelling medical devices such as catheters, prosthetic joints and internal fracture fixation devices pose a serious health threat. Overall, approximately 3% of all patients receiving such devices develop biofilm infections, with costs adding up to billions of Euros.

The BALI project aims to design a product which will prevent and treat biofilm infections.

Academisch Medisch Centrum Bij De Universiteit Van Amsterdam

Academisch Ziekenhuis Leiden - Leids Universitair Medisch Centrum

AO Documentation And Publishing Foundation

OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN

AO-FORSCHUNGSINSTITUT DAVOS

MADAM THERAPEUTICS BV - SME

POLYPID LTD - SME

PolyPid has developed a unique polymer-lipid-based drug delivery platform which will be tailored for coatings allowing prolonged and pre-determined release rates of SAAPs, to ensure the required local concentrations over a desired period. The coatings will be optimized in vitro and subsequently in mice and rabbit studies to prevent and treat biofilm infection. At the last stage, the selected peptide and formulation will be tested clinically.

i interview

Malka Reichart
(BD Manager, Polypid)



How did you get involved in this project? Do you have any advice for other SMEs?

"We got involved in the project through personal contacts of Prof. David Segal in AO company, who understood the high potential contribution of Polypid technology to the project. Using personal contacts can be very useful in finding the right partners or consortia to work through"

What has been the greatest success of the project (so far)?

"PolyPid developed a formulation for coating metals that are used for medical devices in the orthopedic surgeon area. This formulation enables a controlled release (zero order kinetics) of antibiotic during one month to treat bone infections. Preclinical trials of this development are planned for 2013. Currently we are developing similar coating for the anti-microbial peptides."

What elements contributed most to the success of your proposal?

"The uniqueness of the technology as a drug delivery system that enables a controlled and prolonged (up to months) release of effective drug to the treated area.

In addition, the consortium is dealing with Orthopedic medical devices in which PolyPid has a lot of experience in."

What are your future perspectives from the project?

"We will develop formulation for four antibacterial peptides that will be tested in-vivo during 2013."

What are your impressions about the collaborative activity with Academia/SME during the project?

"As an industry company we feel that things are moving a little bit slower than we would expect. However the academia does provide a different perspective which adds to the strength of the project."

How did the project "Fit for Health" help you?

"I was assisted by the Fit-for-Health National Contact Point from my country in learning about the program and understanding it"