

SPARTHA
MEDICAL

The first Versatile / Personalized Antimicrobial and Anti-inflammatory Coatings for Medical Devices

Keywords: Coatings, Antimicrobial, Anti-inflammatory, Personalised Implants, Nosocomial Infections, Antibiotic Substitutes

PROBLEM

Infections / Implant-related complications. Adverse reactions to implants:

- 2-10% of infection rate depending on the implant type
- 5-20% chronic inflammation related problems
- Infection around an implant can cost an extra of 5.000 to 100.000 € as a function of severity and required revisions with significant discomfort and danger for the patient



4 Million
Nosocomial
Infections in EU/year



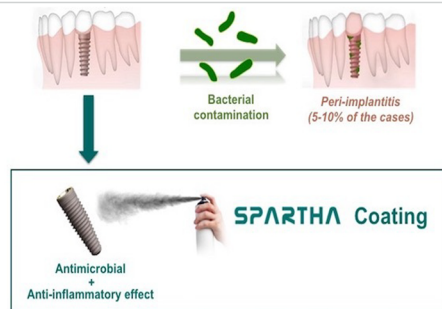
7 Billion €
Extra cost /year

NEEDS

- Substitutes for conventional antibiotics to which bacteria cannot develop resistance
- Protection of implants against infection as 50-70% of nosocomial infections are related to the implants
- Personalization of Implant interfaces for better clinical outcomes

SOLUTION

- Patented, bioactive and smart coating for surface functionalization of medical devices and wound management
- Broad-spectrum antimicrobial activity
- Anti-inflammatory activity
- Can be applied to any kind of surface
- Bacteria cannot develop resistance against it



Consequences

Pain, revision surgeries
Implant replacement
Increase in healthcare costs

Advantages

Decreased complications
Better integration of the implants
Savings in healthcare costs

TEAM



Nihal Engin Vrana CEO
Co-founder, Co-inventor
10 years of experience in Medical Devices



Philippe Laval Co-founder, CSO
Co-inventor, Deputy Director INSERM
20 years of experience in coatings, biomaterials



Angela Mutschler Co-founder
Ass. Prof. Univ. Bordeaux
5 years of experience in coatings / chemistry of polymers



Cynthia Calligaro Production Manager
Production of coatings
3 years of experience in coatings



Thierry Mignot DAF
5 years of experience as administrative manager for Medical Device Companies

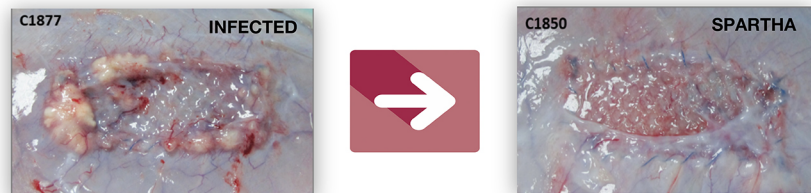


Pulchérie M. Ngumtè Business developer
PhD, MBA - Scientific and Business background



ONGOING RECRUITMENTS
R&D (Junior and Senior Researchers)

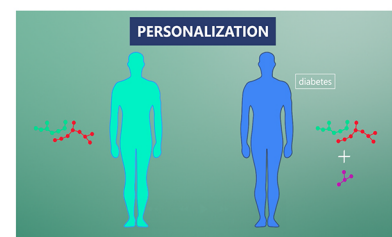
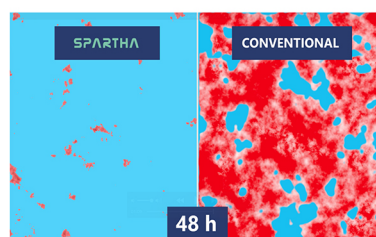
INFECTED HERNIA MESHES IN RABBITS



INNOVATION

- Based on natural biopolymers, Multifunctional : Antibacterial and Anti-inflammatory, strong and broad bactericidal effects (ISO standard 22196)
- Conformational thin films: Applicable to any surfaces, simple manufacturing process (green, no chemistry, no solvents)
- No resistance mechanisms (CLSI standard) like with antibiotics, Shelf life above 5 years
- All sterilization methods possible (steam, gamma, EtO and electron beam)
- Promising in vivo data : Effective antibacterial activity, biocompatibility and absence of cytotoxicity profile (ISO standards 10993-5 / 10993-10 / 10993-11)
- Personalization of coatings according to each patient's specificity
- Ergonomic use : Integration of new technologies in coating application systems
- Innovative coating service offer : Based on a qualified R&D team as well as a significant reduction in delivery times
- 4 patents, one application in progress

SUPPORTS



CONTACTS

evrana@sparthamedical.eu
philippe.lavalle@inserm.fr

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The invisible defense for your implants!