



Duration: Jun. 2016 - Okt. 2019

Total budget: 394.674 €, therof 294.000 € funds

A network linking experts from hospitals, science and industry *in Trauma & Orthopedics & New: Dental Surgery*

- determination of clinical needs, trends and innovative potentials
- initiation of cooperation and collaborative projects
- transfer of services, technologies, products and processes along the value chains
- highlighting expertise existing in the Life Science Nord region

We foster the economy



Regional Economic Programme: Funded by the European Union - European Regional Development Fund (ERDF), the Federal Government and Land Schleswig-Holstein

Schleswig-Holstein
Der echte Norden

Innovation Network For Bone Healing





Structure and activities:

- > 65 participants (institutions)
- panel of experts: strategy & representation
- working group: *Implant-associated Infections*

- ~ 20 initiated projects and collaborations
- founding: Osteolabs GmbH in Kiel

- 3 networking events: specialist lectures and factory tours
- Bone Innovation Summit
- parliamentary event in Berlin, 6th of June 2019

Innovation Network For Bone Healing





LIFE SCIENCE NORD

Particular areas of focus:

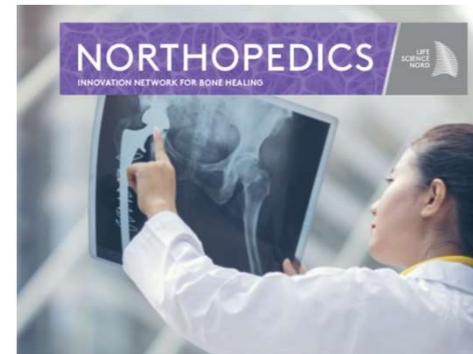
Clinical needs

- Diagnostics, Therapy & Prognosis of Bone Healing
- Implant-associated Infections
- Osteoporosis
- Bone Tumors & Inflammations

Technical solutions

- Implants & Functionalization
- Materials, Surfaces & Production Technologies
- New Forms of Therapy & Prevention
- Visualization, Assays & Data Evaluation

Innovation Network For Bone Healing



NETWORK GUIDE



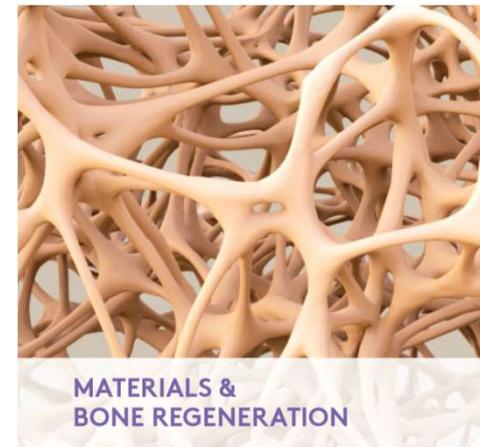
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 www.stryker.com/de/produkte/kid
 number of employees: > 500 (Kiel),
 ~11,000 (globally)
 founded year: 1914

KEYWORDS
 intramedullary nails
 Medical technology
 Traumatology
 Orthopaedics
 Medical imaging
 Diagnostics

STRYKER TRAUMA GMBH

Stryker is one of the world's leading medical technology companies and, together with our customers, is driven to make healthcare better. We offer innovative products and services in Orthopaedics, Medical and Surgical, and Neurotechnology and Spine that help improve patient and hospital outcomes.

Stryker - Kid
 Today, Stryker Trauma GmbH is the market leader in intramedullary devices for the fixation of fractures for all extremities. At our Kiel location, we develop and produce medical nail implants, screws and instruments, mainly for the care of broken bones. We have now achieved a leading global position in this field. Every 2.5 minutes, a patient is currently being implanted with one of our products from Kiel.



MATERIALS & BONE REGENERATION



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 bio/for/chemie/experimentell/
 bio/med/chemie/chemie-
 bio.html

KEYWORDS
 Traumatology
 Biomechanics
 Tissue engineering and regeneration
 Adult stem cells
 Small animal models
 Biology of human and infection

EXPERIMENTAL TRAUMATOLOGY AND ORTHOPAEDICS, DEPARTMENT OF TRAUMATOLOGY AND ORTHOPAEDICS, UKSH KIEL

The Experimental Traumatology and Orthopaedics as part of the Department of Traumatology and Orthopaedics conducts research and offers expertise in the following fields:

- Polytrauma and inflammatory processes
- Bone regeneration and vascularization
- Adult human mesenchymal stem cells from different tissue sources
- Human blood derived outgrowth endothelial cells
- Bone vascularization strategies
- Assessment of biomaterial design and biocompatibility (Hydrogels, 3D scaffolds)
- Advanced human co-culture systems for bone and biological barriers
- Molecular guidance of bone regeneration by bioactive compounds
- Role of myeloid cells in bone repair
- Functions in bone regeneration and musculoskeletal health
- Ex vivo bone defect model
- Impact of inflammation on bone healing
- Effects of polytrauma and infection on biological barriers (alveolar capillary barrier in the lung)
- In vitro and in vivo
 - CLM, EVOS life cell imaging system, real time PCR, protein analysis, adult human stem cells, cytokines, ICI online monitoring of cell growth
 - Small animal models to assess vascularization by adult stem cells

Links for further info:
www.researchgate.net/profile/Sabine_Fuchs
www.uksh.de/de/for/chemie/chemie-bio/for/chemie/experimentell/bio/med/chemie/chemie-bio.html
www.fuchsmembers.com/
www.inflammation-at-interfaces.de/en/profile/members/members/sabine-fuchs



Innovation Network For Bone Healing

Representatives:

- Dr. Eleonore Behrens, Section Dental Implantology, Department of Oral and Maxillofacial Surgery and Plastic Surgery, University Medical Center Schleswig-Holstein - Kiel
Head of the Section, Head of the Company ELAN “Conference and Science Medical Consulting”, Director ITI Study Club Kiel, Leadership International Curriculum CAU Kiel
- Dr. Bérengère Luthringer-Feyerabend, Department for Biological Characterisation, Division Metallic Biomaterials, Institute of Materials Research, Helmholtz-Zentrum Geesthacht
Head of the Department
- Dipl.-Ing. Christian Lutz, Bluewater Medical GmbH, Kiel
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