

BIOMATERIALS for MEDICAL APPLICATION Interactions between materials and living systems

23rd of October 2014 - Arlon

Organised by



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With funding from



OBJECTIVES

Whatever the applications, *in vitro*, *ex-vivo* or *in vivo*, biocompatibility of implants is strictly affected by the short, medium and long term relationships existing between cells and materials. Those aspects are indeed critical to limit any inflammatory response and to promote the integration and functionalities of the implants. If surface properties (chemistry, rugosity, porosity) are key parameters to control protein adsorption, cell adhesion and proliferation, other parameters should be also taken into consideration. Amongst other, we can mention: diffusion aspect (gas, nutrients, metabolites, cells...) and biomechanical solicitations (gradient, duration, frequency).

This workshop will represent a unique opportunity to promote exchange of ideas, experiences between intermatGR & UniGR's actors with the perspective for example to promote the application of stem cells in regenerative medicine. Financial tools of the EC will be proposed.

Date

23rd of October 2014 – 9.30 am to 17.00 pm

Venue

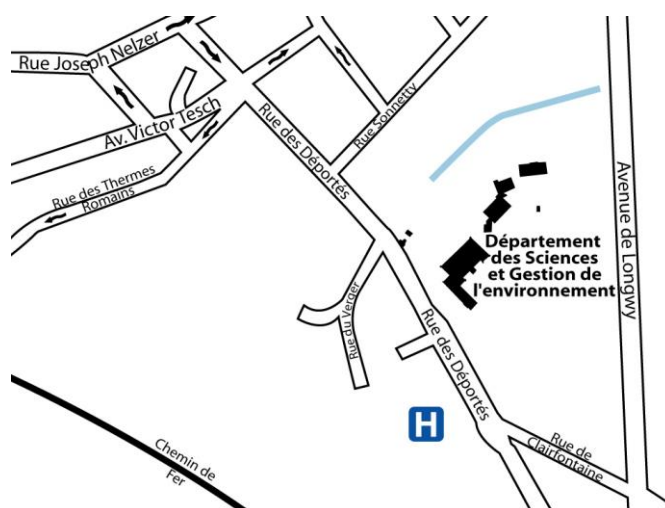
Université de Liège - Campus d'Arlon
187 Avenue de Longwy,
6700 Arlon – Belgium

By car

E411 exit 31 or 32
Parking facilities

By train

Rail line Luxembourg-Brussels
Station "Arlon"
12 minutes walk to the
campus.



Registration (free) until 19th of October using the registration form available on intermat-gr.eu/en/events/.

You want to present a poster or you are an industry and you want to propose an elevator pitch? Please, contact the organisers.

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AGENDA

9.30 Welcome

Opening address by **Prof. Christian Grandfils**, head of CEIB at ULg (Wallonia)

Presentation of intermatGR project and UniGR

10.00 Material Synthesis and Characterization

Nanostructured surface for implants.
Dr. Cenk Aktas, INM (Saarland)

Biodegradable Polyester-based Microcarriers with Modified Surface Tailored for Tissue Engineering.
Prof. Christian Grandfils, ULg (Wallonia)

Microstructuring of Metallic Surfaces by Cold Spray Technique.
PhD student **Sebastian Bühl**, TU Kaiserslautern (Rhineland-Palatinate)

11.00 Break

Nanostructured materials/interfaces for sensing, imaging and drug-delivery applications.
Dr. Sivashankar Krishnamoorthy, CRP Lippmann (Luxembourg)

European and cross border regional funding programmes.
NCP Wallonie

12.15 LUNCH

Followed by POSTER session

13.45 In vitro Evaluation, Modelling

New developments in stem cell expansion processes on microcarriers in stirred tank bioreactor.

Dr. Emmanuel Gueudon, ULOR (Lorraine) & **Dr. Marie-Laure Collignon**, ULg (Wallonia)

In vitro triple culture of inflamed human intestine as a model to investigate nanoparticles interactions.

Dr. Cristiane de Souza Carvalho, HZI, UdS (Saarland)

Interfacing biology with technical substrates.
Prof. Christiane Ziegler, TU Kaiserslautern (Rhineland-Palatinate)

14.45 Break

15.00 In vivo Study: Pre-clinic and Clinical Aspects

Mesenchymal Stem Cells (MSC) banking : clinical applications and new challenges.

Dr. Chantal Lechanteur, CHU ULg (Wallonia)

Mesenchymal cells in Rheumatology: from bench to bedside and back again.

Dr. Dominique de Seny, CHU ULg (Wallonia)

Allogeneic bone cells combined with a synthetic scaffold to treat lumbar fusion.

Dr. Enrico Bastianelli, CEO Bone Therapeutics (Wallonia)

15.45 Entreprises pitches session

5 minutes to present his activity and initiate discussions about collaboration and project.

16.30 Conclusion and Closing drink

