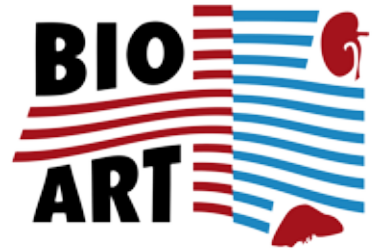
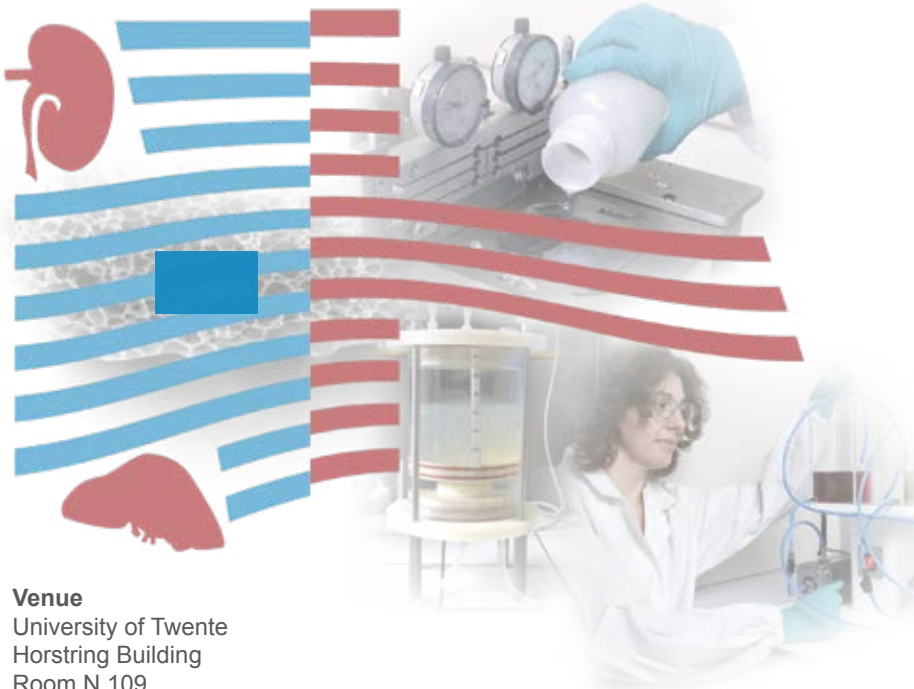


Biomedical membranes and (bio)artificial organs



8 -12
June
2015

PROGRAMME



Venue
University of Twente
Horstring Building
Room N 109



MIRA
BIOMEDICAL TECHNOLOGY
AND TECHNICAL MEDICINE

U Twente
Radboud University of Nijmegen
and
University of Twente

BIOART

FRANCE

GERMANY

THE NETHERLANDS

ITALY

BELGIUM



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Welcome to the BIOART Summer School

Thank you very much for participating to the Bioart summer school on “Biomedical membranes and (bio) artificial organs”. The school is organised within the framework of the “Bioart” Marie Curie ITN project, which aims to provide the European Union with specific multi-disciplinary expertise in the area of (bio)artificial organs.

For this school, we have prepared a balanced programme with important lectures by experts of various disciplines from academia and industry. We will also organise a poster session, where you can present and discuss your latest research work, as well as an interactive research assignment session where you can work towards an innovative project idea.

Take the time between the school lectures / activities to meet and interact with your colleagues and the invited speakers / experts. The school, besides an exciting learning experience, could also be a great way to expand your professional and personal network.

Prof. Dr. Dimitrios Stamatialis
Coordinator of the ITN BIOART project



Monday 8 June 2015

08.00 – 09.00	Registration
09.00 – 09.15	Welcome Prof. Dr. D. Stamatialis
General topics	
09.15 – 11.00	“Biomedical membranes - preparation and characterization” <i>Dr. A. Kemperman, University of Twente, NL</i>
11.00 – 11.30	COFFEE/TEA BREAK
11.30 – 12.30	“Colloidal interaction forces and electrostatic charges at solid-electrolyte interfaces” <i>Prof F. Mugele group, University of Twente, NL</i>
12.30 – 14.00	LUNCH
(Bio) artificial liver	
14.00 – 15.00	“Bioartificial liver, its challenges” <i>Prof. R. Chamuleau, University of Amsterdam, NL</i>
15.00 – 16.00	“Membrane bioreactors using liver cells” <i>Dr. L. De Bartolo, ITM, IT</i>
16.00 – 16.30	COFFEE/TEA BREAK
16.30 – 17.30	“New Therapeutic Targets Discovered for Liver Repair and Regeneration with special reference to GMP and GCP regulatory issues” <i>Dr. S. Giri, University of Leipzig, DE</i>
18.00 – 19.30	DINNER

Day-by-day Programme

Tuesday 9 June 2015

General topics

08:30 – 09:30	“Biomaterial - cell interaction” <i>Dr. A. Poot, University of Twente, NL</i>
9.30 – 10.30	“Mass transfer and modeling in bioartificial organs” <i>Prof. C. Legallais, University of Compiegne, FR</i>
10:30 – 11:00	COFFEE/TEA BREAK
11:00 – 11:45	“Hemocompatibility of biomaterials and medical devices – scientific background and practical examples” <i>Dr. H. Lemke, Excorlab, DE</i>
11:45 – 12:30	“Biological safety of medical devices – regulatory issues” <i>Dr. H. Lemke, Excorlab, DE</i>
12:30 – 14:00	LUNCH
14:00 – 15:00	“Entrepreneurial Thinking: Bringing your Ideas to Life” <i>Dr. B. Papenburg, Materiomics B.V., NL</i>
15:00 – 17:00	Poster session (coffee and tea)
18:00 – 19:30	DINNER

Wednesday 10 June 2015

General topics

- | | |
|---------------|--|
| 09:00 – 10:00 | “Membrane functionalization strategies”
<i>Prof. M. Ulbricht, University of Essen, DE</i> |
| 10:00 – 11:00 | “Surface modification to guide protein adsorption and cell response”
<i>Prof. Th. Groth – University of Halle, DE</i> |
| 11:00 – 11:30 | COFFEE/TEA BREAK |
| 11:30 – 12:30 | “Early stage health economic evaluation of bioengineered tissues & organs to facilitate market access and reimbursement”
<i>Prof. M. Ijzerman, University of Twente, NL</i> |
| 12:30 – 14:00 | LUNCH |
| 14:00 – 15:00 | “Membranes for tissue engineering and regenerative medicine”
<i>Prof. G. Catapano University of Calabria, IT</i> |
| 15:00 – 16:00 | “Ethical aspects of bioartificial organs and tissues”
<i>Prof. P. Brey, University of Twente, NL</i> |
| 16:00 – 16:30 | COFFEE/TEA BREAK |
| 16:00 – 17:30 | Research Assignment: working in teams |
| 18:00 – 19:30 | DINNER |

Thursday 11 June 2015

(Bio) artificial Kidney

09:00 – 10:00 “Evolution of dialysis membrane design: role of ultrastructure and dimensions”
Prof. J. Vienken, Nephro-Solutions AG, DE

10:00 – 11:00 “Chronic Kidney Disease - nephrologist perspective”
Dr. K. Gerritsen, Utrecht University Medical Center, NL

11:00 – 11:30 COFFEE/TEA BREAK

11.30 – 12.30 “At the other end of the blood-line ... (what you should know about life on dialysis)”
Dr. J. Boomker, Dutch Kidney Foundation, NL

12:30 – 14:00 LUNCH

(Bio) artificial pancreas

14.00 – 15.00 “Functional beta cell replacement therapy through islet or whole pancreas transplantation”
Dr. M. Nijhoff, Leiden University Medical Center, NL

15:00 – 16:00 “Bioartificial pancreas device for patients with diabetes type 1”
Dr. A. van Apeldoorn, University of Twente, NL

16:00 – 17:30 Pitch of research assignments by the workgroups

18:00 – 20:00 DINNER and Evening lecture: “When the movies were young”
Prof. J. Vienken, Nephro-Solutions AG, DE



Friday 12 June 2015

(Bio) artificial Kidney

09:00 – 10:00

“Human Organs – on – chips”

Dr. A. van der Meer, University of Twente, NL

10:00 – 11:00

“The functional requirements of a living membrane for Bioartificial kidney”

Dr. R. Masereeuw, Radboud University Medical Center, NL

11:00 – 11:30

COFFEE/TEA BREAK

11.30 – 12:00

Research assignment awards / Poster awards /
Concluding remarks

Prof. Dr. D. Stamatialis, University of Twente, NL

12:00 – 14:00

LUNCH + departure

MAP C

- Bastille (BA)
- Blokhutten (BL)
- BMC (BI)
- Boerderij Bosch (B)
- Box (BO)
- BTC (BTC)
- Buitenhorst** (BH)
- Carillon (CN)
- Carré* (CR)
- Citadel (CI)
- Cubicus (CU)
- Drienerburgh (DR)**



Hengelo

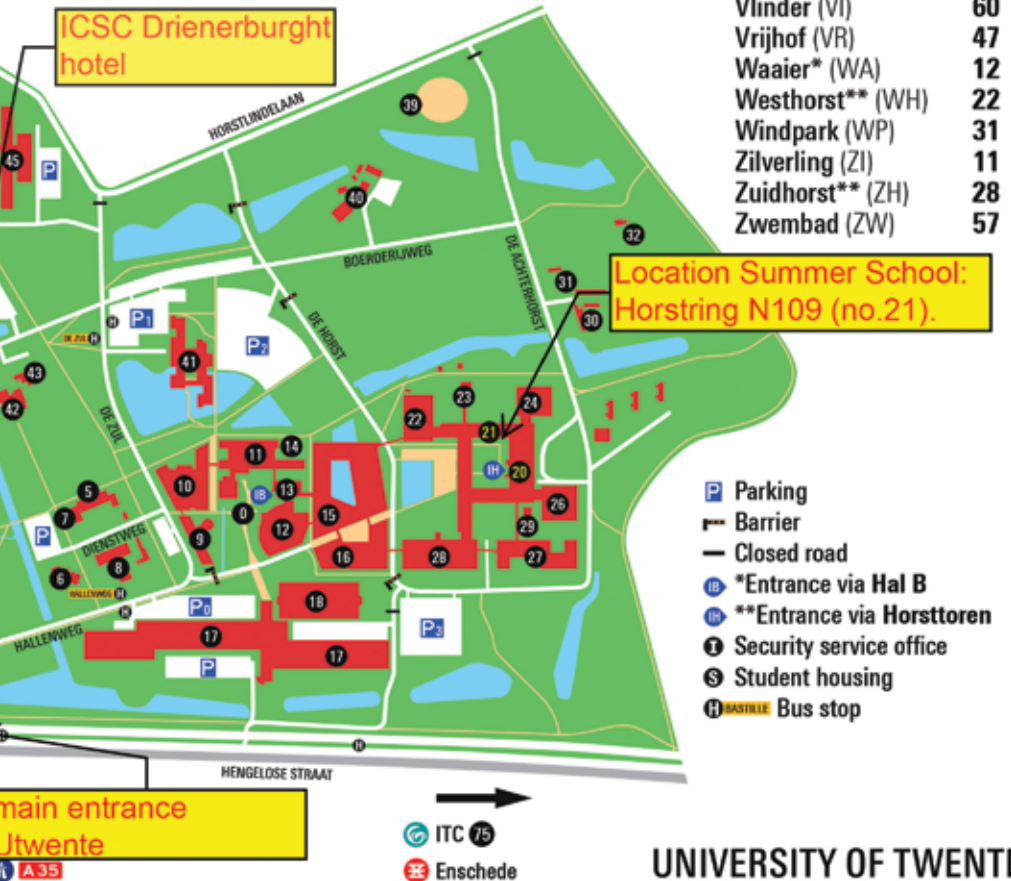
Station Drienerlo

66 BTC
69 Therm

This map is downloadable at www.utwente.nl/campusmap
 For a 3d-version see maps.utwente.nl

OF THE UNIVERSITY OF TWENTE

48	Erve Holzik (ER)	40	Kleinhorst** (KH)	23	Schuur (SR)	43
63	Faculty Club (FC)	42	Linde (LI)	61	Seinhuis (SH)	7
32	The Gallery (GY)	17	Logica (LO)	65	Sky (SK)	51
62	Garage (GA)	5	Meander** (ME)	27	Sleutel (SL)	58
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15	Horstring** (HR)	21	Oosthorst** (OH)	26	Teehuis (TH)	14
9	Horsttoren (HT)	20	Openluchttheater (OUT)	56	Tennispark (TP)	64
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44	Keet (KT)	30	Ravelijn (RA)	10	Therm (TM)	69
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					Vleugel (VL)	3
					Vlinder (VI)	60
					Vrijhof (VR)	47
					Waaier* (WA)	12
					Westhorst** (WH)	22
					Windpark (WP)	31
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What is BIOART?

BIOART is an Initial Training Network funded by the European Union. It brings together academic and private partners collaborating to provide young researchers with the research and entrepreneurial skills necessary to make a significant impact in the **treatment of kidney and liver diseases**, and enhance their career prospects in both the public and private sectors.

Research Objectives

- Develop **prototype artificial kidney devices** enabling prolonged/continuous removal of uremic toxins
- Develop **prototype bioartificial kidney devices** using human renal epithelial cells to remove uremic toxins
- Develop **prototype bioreactor devices** to ensure the viability and function of hepatocyte cells

BIOART recruited **11 PhD students** (Early-stage researchers) and **5 postdocs** (Experienced researchers) to achieve its scientific objectives.

Training Objectives

BIOART **trains a new generation of scientists** capable of addressing highly multi-disciplinary projects combining material science and engineering with biology and medicine.

BIOART in brief

Starting date:

1st December 2012

End date:

30th November 2016

Number of partners: 11

Coordinator:

Prof. Dr. Dimitrios STAMATIALIS
University of Twente, MIRA Institute
The Netherlands

Programme:

FP7-PEOPLE-2012-ITN

Project Reference: 316690

EC Funding: 3,792,616 €



University of Twente

Biomaterials Science and Technology (BST)
The Netherlands

Paul Sabatier University

Laboratoire de Génie Chimique (LGC)
France

Radboud University Nijmegen Medical Centre (RUNMC)

Nijmegen Centre for Molecular Life Sciences
The Netherlands

University of Technology of Compiègne (UTC)

Laboratory of Biomechanics & Bioengineering
France

National Research Council of Italy (ITM-CNR)

Institute on Membrane Technology
Italy

Universität Leipzig (ULEI)

Cell Technologies and Applied Stem Cell Biology
Germany

Università della Calabria (UNICAL)

Department of Environmental and Chemical Engineering
Italy

EXcorLab GmbH

Germany

GVS S.P.A.

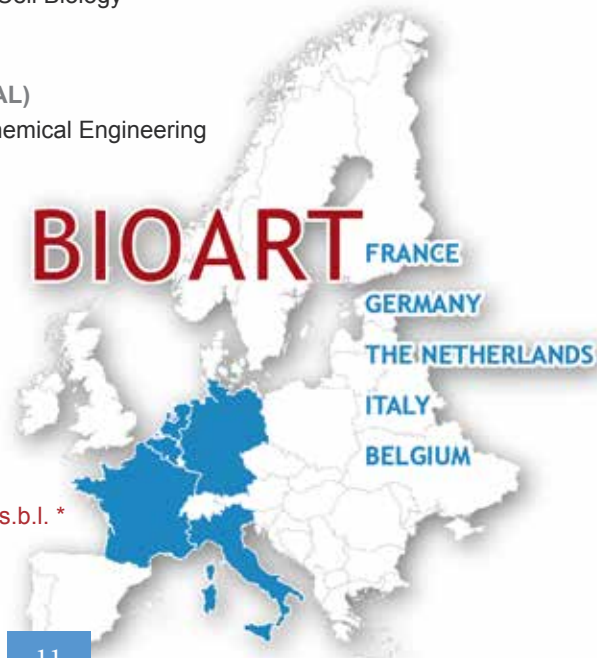
Italy

Bionethos Innovation GmbH

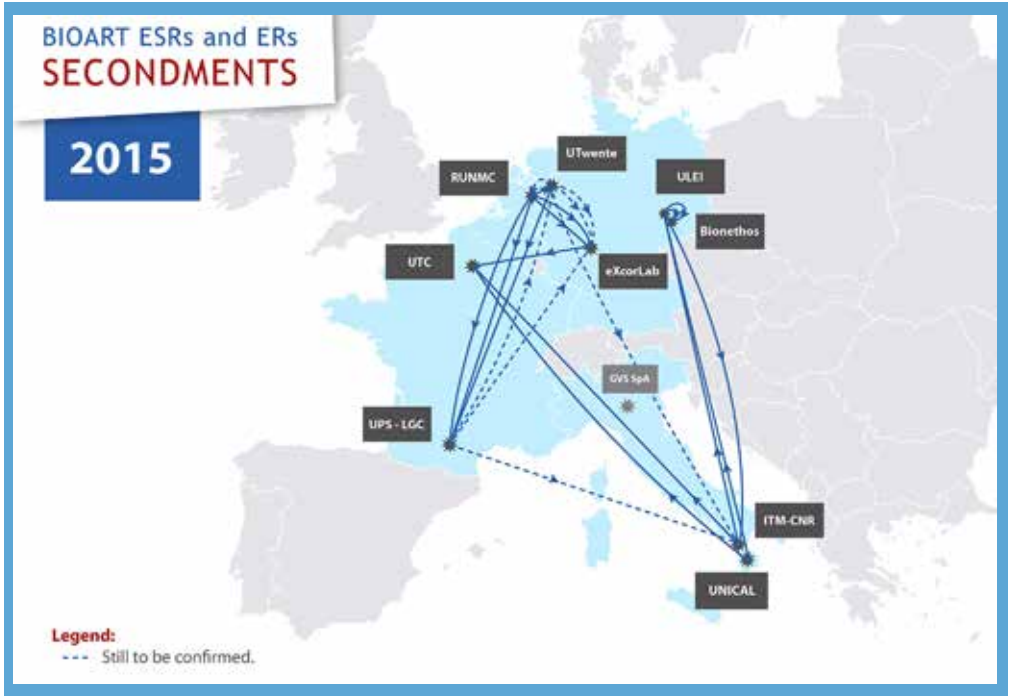
Germany

European Membrane House a.i.s.b.l.*

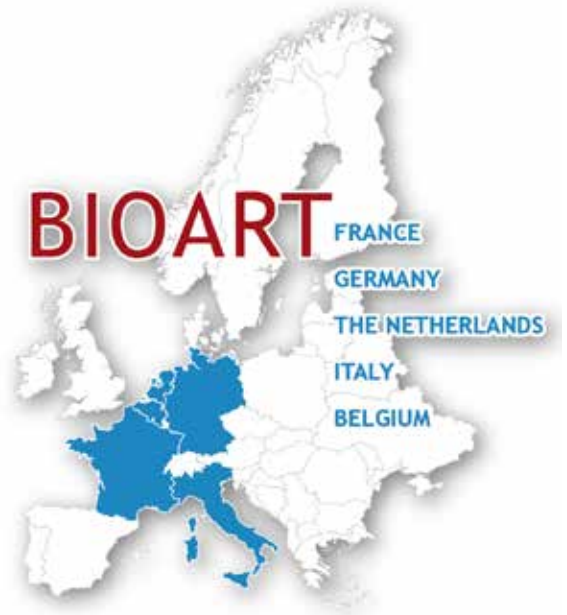
Belgium



Map of the Fellows' Secondments in 2015



BIOART's team at Cetraro (Italy) in September 2014



www.bioart-fp7.eu

Summer School organised by

Department of Biomaterials Science and Technology
MIRA Institute of Biomedical Technology and Technical Medicine
Faculty of Science and Technology
University of Twente, Enschede, The Netherlands.



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The Summer School is sponsored by:



The Summer School is endorsed by:

