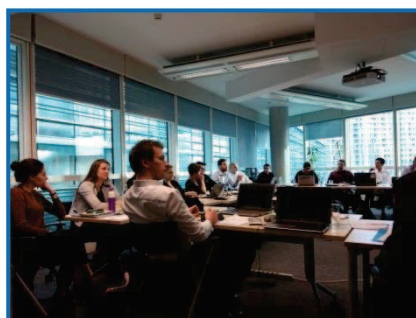
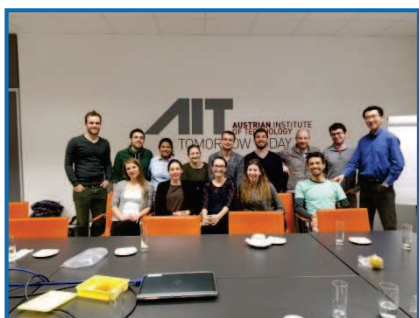




### 7<sup>th</sup> Newsletter – July 2018

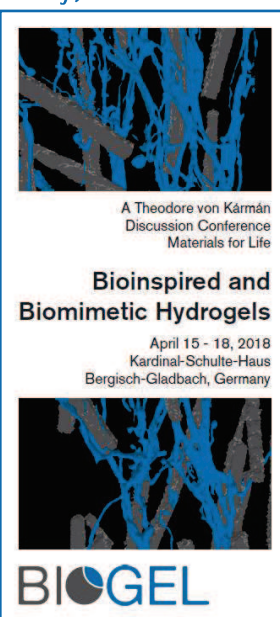
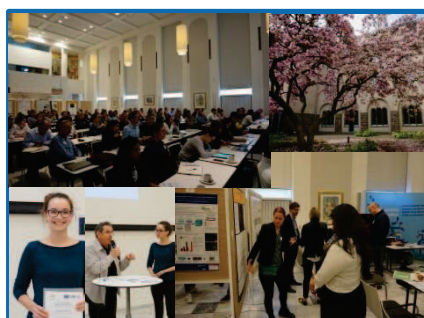
#### 6<sup>th</sup> Network Meeting and 7<sup>th</sup> Workshop at AIT-Austrian Institute of Technology in Vienna— January 28<sup>th</sup>-31<sup>st</sup>, 2018

The 6<sup>th</sup> Network Meeting comprised of the ESR's progress report presentations that were followed by scientific discussions and valuable feedback. Afterwards, the ESRs were introduced to advanced imaging techniques to assess the performance and possible applications of hydrogels during the 7<sup>th</sup> Workshop. The workshop was open by Prof. Ulrich Jonas from the University of Siegen who presented basic concepts of responsive polymer architectures in solution and confined networks. Prof. Toby Jenkins from the University of Bath continued the workshop by presenting applications of hydrogel matrices in the detection and treatment of bacterial wound infections. Prof. Jose L. Toca-Herrera from the University of Natural Resources and Life Sciences (BOKU Vienna) introduced the principles and use of atomic force microscopy on soft matter. The lectures were concluded by one of the BIOGEL Researchers, Nestor Gisbert Quilis, giving an overview on surface plasmon resonance and optical waveguide spectroscopy for the observation of thin hydrogel films. The workshop was continued with hands-on experiments on optical waveguide spectroscopy – based observation of thin hydrogel films. Finally, the workshop was closed with a practical demonstration of an atomic force microscopy instrument as a tool for *in-situ* observation of cells, given by Dr. Jagoba Iturri.



#### Theodore von Kármán Discussion Conference on Materials for Life: Bioinspired and Biomimetic Hydrogels — April 15<sup>th</sup> -18<sup>th</sup>, 2018 (Bergisch-Gladbach, Germany)

The conference, organized by the BIOGEL consortium, has drawn the attention of an international audience, including experienced scientists, as well as young researchers and students. The conference hosted worldwide known experts from the fields of bioinspired materials engineering and molecular biology like Virgil Percec, Matthias Lutolf, Joachim Spatz, Avi Schroeder, Mitsuru Akashi, Martin Möller and many more. The outstanding talks of invited speakers triggered focussed discussions and inspired new ideas. A number of students presented their research in form of pitch presentations and during extensive poster sessions, including the ESRs of BIOGEL.





### Publications

Congratulations to Nestor Quilis and Irene Buzzacchera and our partners at AIT and Noviosense with their publication in *Nanoscale*, *Polymer Chemistry* and *Proceedings of the National Academy of Sciences of the United States of America*!

#### Nestor Quilis

Tunable laser interference lithography preparation of plasmonic nanoparticle arrays tailored for SERS (*Nanoscale*, 2018, **10**, 10268-10276, DOI: 10.1039/C7NR08905H)

#### Irene Buzzacchera

TSET-LRP in biphasic mixtures of fluorinated alcohols with water (*Polym. Chem.*, 2018, **9**, 2313-2327, DOI: 10.1039/C8PY00062J)

Exploring functional pairing between surface glycoconjugates and human galectins using programmable glycodendrimersomes (*PNAS*, 2018, **115** (11) E2509–E2518, DOI: 10.1073/pnas.1720055115)

### Events and dissemination, a selection

#### **Dominik Bernhagen**

gave a talk at the Dutch Peptide Symposium in Maastricht.



#### **Daria Kotlarek**

gave an oral presentation at the 28th World Congress on Biosensors (Miami, USA) about biocompatible semi-permeable hydrogel membranes for amplified continuous detection of thrombin. She also presented a poster at the Europt(r)ode 2018 conference on chemical, biochemical and optical sensing in Naples (IT).

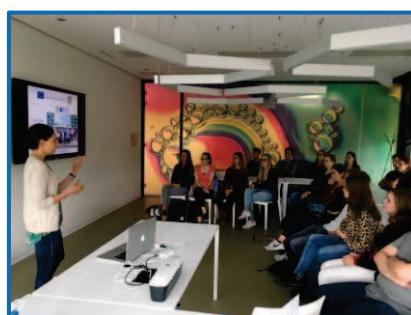


#### **Evgenia Tsanaktsidou**

gave an oral presentation at the 3rd congress of gene therapy and regenerative medicine (Thessaloniki, GR).

#### **Irene Buzzacchera**

opened the doors of Noviosense on the 18th June 2018 to 2nd year bachelor students from the Biomedical Sciences and Medicine course from Radboud University. The workshop took place during the two-weeks course on “Nanomedicine strategies in research and healthcare” coordinated by Prof. Alessandra Cambi from the Faculty of Medical Science of Radboud University. Noviosense has been chosen as a nanomedicine oriented company, from which the students could be inspired and get to know industrial research. Dr. Christopher Wilson and Dr. Alicja Kownacka presented Noviosense and its role in the medical device field. Irene Buzzacchera presented BIOGEL and its interdisciplinary network, as well as application of hydrogel nanoparticles for sensing applications.



#### **Nestor Quilis**

gave a talk at the bio and optoelectronics winter school in Hirschegg, Austria and presented a poster at the Biosensors 2018 conference (Miami, USA) and Europtrode conference (Naples, Italy).

#### **Leander Poozca & Filippo Cipriani**

hosted a BIOGEL OPEN DAY at Uva and TPNBT, which took place April 13<sup>th</sup> in concomitance with the Open day of the University of Valladolid in order to have a larger audience and a better dissemination. Children, young students, and people of all ages interested in science attended the OPEN DAY. The BIOGEL Project was explained in a comprehensive way to everybody by Filippo and Leander; moreover, some hands-on activities regarding biology and chemistry were performed by the guests.

Leander also gave a talk at the 10th European Elastin Meeting (Nijmegen, Netherlands) and in the AMBA 2018 (Gent, Belgium).



### Upcoming events

- **Network Meeting 7** at at DWI in Aachen, Germany, July 25<sup>th</sup>, 2018

For detailed information about the BIOGEL network: [www.biogel-mariecurie.eu](http://www.biogel-mariecurie.eu)