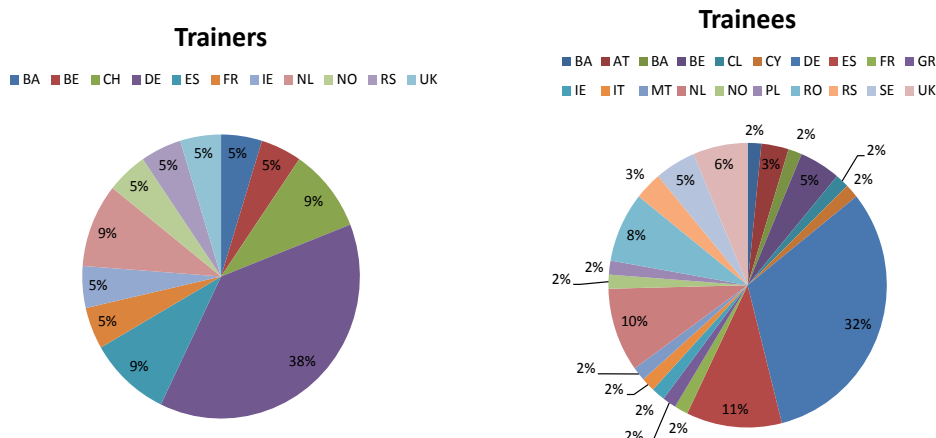




COST Action BM1106 GENIEUR Training School and Final Conference in Heidelberg

The COST Action BM1106 GENIEUR (The Genes in Irritable Bowel Syndrome Research Network Europe, www.GENIEUR.eu) Training School (TS) on *Genetics, Epigenetics and Microbiota research Methods in IBS* and Final Conference took place on March 11-15 at the Centre of Molecular Biology at the University of Heidelberg.

One major goal of GENIEUR is to encourage young colleagues to get engaged in translational neurogastroenterology research. With the TS from March 11-13, GENIEUR offered an excellent platform for young scientists as well as more established colleagues to get introduced to the background knowledge about the *state of the art* in experimental methods and analysis techniques in genetics, epigenetics and microbiota research. The TS was co-organised by the Initial Training Network Neurogut (www.neurogut.eu). 63 Trainees and 21 Trainers from 20 countries were involved (see figure below). The majority of the trainees highly appreciated the TS content and possibility to interact with trainers and trainees from the various countries.



The major topics addressed during the adjacent Final Conference on March 14-15, 2016 were the *state of the art* in genetics, epigenetics and microbiota research in IBS as well as phenotyping of patients, feasible traits and potential biomarkers as well as major achievements of GENIEUR members. These talks were given by Beate Niesler (DE) from Heidelberg, Javier Santos (ES) from Barcelona, Lukas van Oudenhove (BE) from Leuven, Mirjana Rajilic (SR) from Belgrade, Jonna Jananke (SF) from Helsinki and Magnus Simrén (SE) from Gothenburg. Furthermore, mainly young GENIEUR fellows presented latest research data in eight selected oral presentations and 14 posters in the categories genetics/epigenetics, microbiota, clinical patient studies and clinical basic science.

Emeran Mayer (USA) was talking via a live stream from Los Angeles on the influence of gut microbiota on the brain and their potential relevance for IBS. As invited speaker from the Rome foundation, Fermín Mearin (ES) spoke about the pros and cons on symptom-based criteria to phenotype IBS patients. Finally, examples of major achievements during the GENIEUR COST Action running time were presented. Among those are collaborations on deep phenotyping and genetics in IBS, phenotyping of joint hypermobility and microbiota

analysis which were covered by Lukas van Oudenhove (BE), Qasim Aziz (UK) and John Penders (NL). Within this session, Daisy Jonkers (NL) also gave an overview on the actual LINK Award. Ad Masclee (NL) and Beate Niesler (DE) received this Award on behalf of the Dutch and German Gastroenterology Societies for a project called 'Help EU in IBS' to support countries in which no (genetics) research on IBS is established for getting the GENIEUR deep phenotyping protocol implemented locally. Besides, the Netherlands and Germany, GENIEUR partners from Norway, Bosnia-Herzegovina, Serbia and Malta are engaged in this endeavour.

During the running time of the COST Action, 20 Short Term Scientific Mission (STSM) fellowships have fostered various new collaborations. In the final session, three young fellows reported on their STSMs. Sabrina Berens (DE) from Heidelberg informed about her STSM on association analyses of genes of the serotonergic system with gastrointestinal symptoms, anxiety and depression in IBS and the established collaboration between Heidelberg, Leuven and Gothenburg. Daniel Pohl (CH) from Zürich Switzerland who was even granted three STSMs talked about his experiences with the COST Action GENIEUR which stimulated research and networking between the centres in Zürich, Gothenburg, Leuven and London. He furthermore had been stimulated by GENIEUR to establish the IBS Network Switzerland. Last not least, Daniel Keszthelyi (NL) from Maastricht, Netherlands reported on his STSM between the centres in Maastricht and London on brain imaging and connective tissue as traits for IBS phenotyping.

During Working Group sessions and the Management Committee Meeting teams finalized their input for preparation of the final achievement report. Furthermore the content of the Final Outcome Brochure reporting on topics and activities of the COST Action BM1106 was discussed. This is currently prepared and GENIEUR aims to reach target groups such as clinicians involved in the diagnosis and treatment of IBS, basic scientists and early stage researchers. Also, for IBS patients and their families, patient organisations and the general public a leaflet with key messages of outcomes of the COST Action BM1106 GENIEUR in lay language has been produced. This is currently translated in GENIEUR member countries' national languages. Both, the Brochure and the leaflet will be available on the website (www.GENIEUR.eu).

Recently, the ESNM endorsed GENIEUR-reloaded which will continue the mission of the COST Action GENIEUR. The teams will further work on the implementation of the GENIEUR recruitment protocol at additional sites to have in the end 24 European and 3 overseas countries (Australia, Chile and the USA) recruiting patient and control samples and to collect blood, tissue and stool samples for genetics/epigenetics and microbiota studies. Our mission is to perform large multi-centre studies in order to nail down genetics and epigenetics in IBS. Further details can be found in *Gazouli M, Wouters MM, Kapur-Pojskić L, Bengtson MB, Friedman E, Nikčević G, Demetriou C, Mulak A, Santos J, Niesler B (2016). Lessons learned: Resolving the enigma of genetic factors in Irritable Bowel Syndrome, Nature Reviews Gastroenterology & Hepatology, doi:10.1038/nrgastro.2015.206, Published online, 04 January 2016*

The next GENIEUR meeting will take place during the UEGW2016 in Vienna.

We cordially thank COST for support, the ESNM for endorsements of all our events and GENIEUR-reloaded, and the sponsors of both events SYMBIOPHARM, Danone, Covaris, nanoString, Nutrimmun and Schwabe.

Beate Niesler, Chair of COST Action BM1106 GENIEUR/GENIEUR-reloaded