



**PERMIDES**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691546

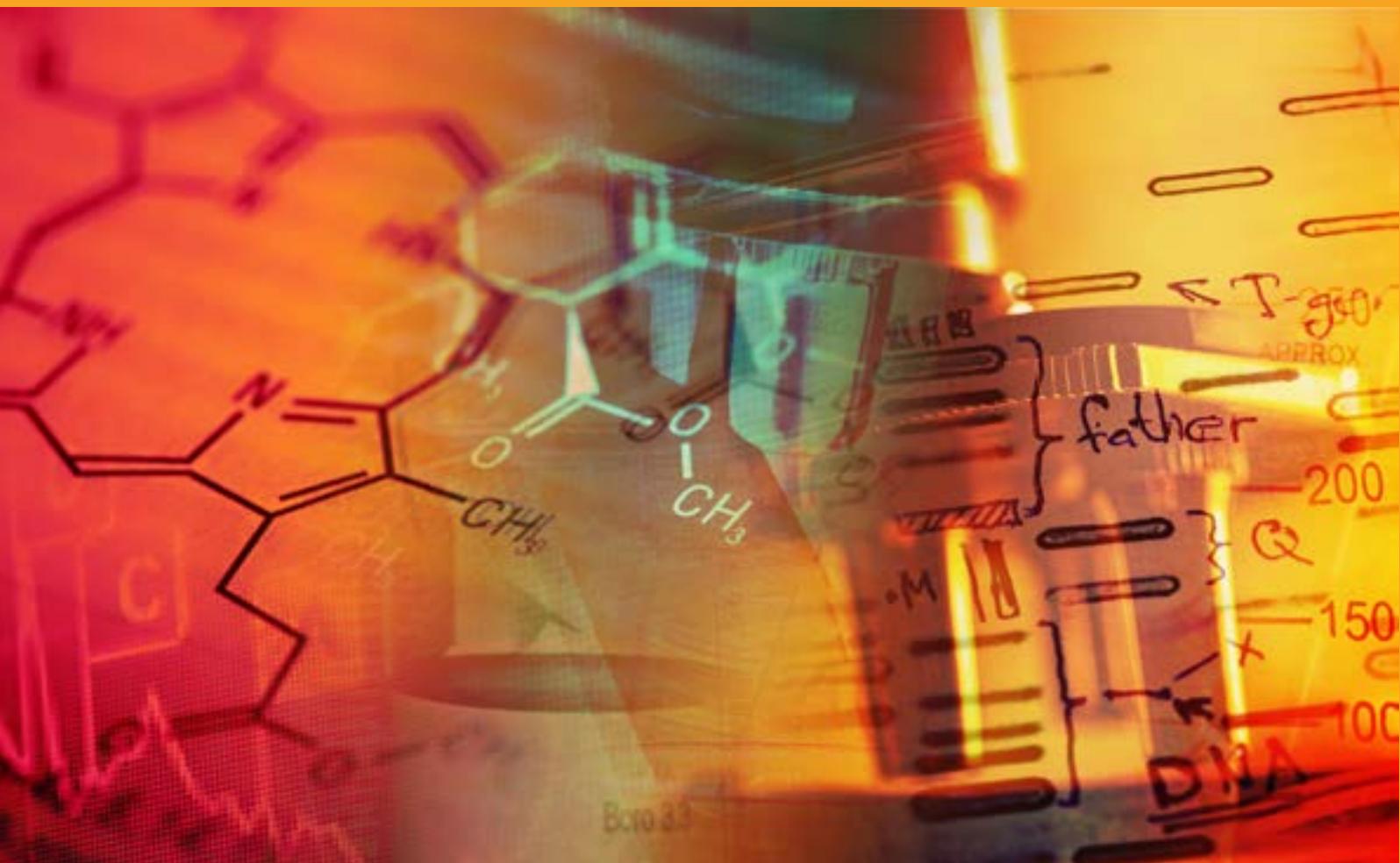
# **Empowering**

Personalised Medicine  
through Digital Solutions

**PERMIDES Final Conference**

12 June 2018

# At the end of the H2020 PERMIDES project – a bright future for the PERMIDES matchmaking platform?



Currently the PERMIDES matchmaking platform is funded by the H2020 INNOSUP project PERMIDES, which ends on 31st of August 2018. To explore the possibilities of sustainable operation and functional extension of the platform idea beyond that date, the PERMIDES consortium will perform demand / market analysis and wishes to define future requirement specifications to ensure that a subsequently evolving sustainable matchmaking and marketing platform will even more precisely meet the needs of the SMEs.

The PERMIDES matchmaking platform was launched in spring 2017. Since then more than 400 companies registered on the platform, rendering it a great success. The broad participation together with positive individual feedback from participating SME's underlines the need of such a platform for presenting products and services to potential customers. Especially in the areas IT and Life Sciences/Medtech, services and products are designed for a globalized market rather than for customers next door. However, highly specialised products and services, provided

by innovative but small companies require an equally specialised platform to be visible in a globalized market.

In the light of the huge interest of companies to participate in the platform and the aforementioned need for a global B2B Life Science and IT marketplace for complex products and services, the PERMIDES consortium aims at establishing requirement specifications for further development and optimization of a sustainable PERMIDES matchmaking platform concept. This will not only enable us to evaluate scenarios for the sustainable continuation of the platform concept that massively facilitates the interaction between Life Science and IT companies. It will also allow us to develop extended functions driving the interaction between Life Science-related providers, supporting branches (CROs, legal, consulting etc.) and potential customers (further Life Science companies, pharmaceutical industry, insurances etc.). In addition quality controlled rating of listed companies, technically advanced matchmaking and deeper profiling of companies are considered on a demand driven basis.

**If you want to give us feedback on the PERMIDES platform or let us know your opinion please contact us!  
You can find information and stay up to date on our homepage [www.permides.eu](http://www.permides.eu)**

# Introduction



**Tamara Högler**  
PERMIDES coordinator  
CyberForum e.V.

PERMIDES, one out of five European INNOSUP-1-2015 projects (cluster facilitated projects for new value chains), supports trend-setting tandem projects between small and medium-sized enterprises (SMEs) of the biopharmaceutical industry and IT companies, following the objective to strengthen the competitiveness and foster the innovation potential of Personalized Medicine as an Emerging Industry in Europe. These innovation projects aim at providing key solutions for the reconfiguration of the biopharmaceutical value chain towards a Health Economy 4.0, addressing current value chain challenges like big data and machine learning.

Via a cross-clustering approach, leading biopharma and IT clusters from three countries (Austria, Germany and Norway) have enabled in the last twelve months novel cross-sectoral collaborations between SMEs in order to address innovation barriers in the biopharma sector via cutting-edge IT solutions, resulting in more than 100 funded innovation projects. Particularly the PERMIDES matchmaking platform contributed to the success of finding appropriate partners. We, the consortium, are convinced that projects like PERMIDES will support the European Union and associated countries to face the challenges of digitalization and globalization by trans-sectoral cooperation and resulting innovative approaches.

# Programme



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## Permides: Empowering Personalized Medicine through Digital Solutions

12 June 2018, Utrecht, The Netherlands

**08.30 - 9.00**

**Registration and Welcome Coffee**

**09:00 - 09:10**

**Opening Words**

Opening words / Achievements of the PERMIDES Project

**Tamara Högler**

(PERMIDES coordinator, CyberForum e.V.)

**Steve Coldicott**

(Precision Medicine Forum)

Conference Chair:

**Simon Schnaiter**

Project Manager, Oncotyrol – Center of Personalized Cancer Medicine GmbH

**09:10 - 10:30**

**Empowering Personalised Medicine through Digital Solutions**

Innovative Screening Process for the Development of Personalized Anticancer Treatment

**Gaelle Saint-Auret**

GENEL (France)

Metabolic Pathway Analysis

**Martin Buratti**

Biocrates Life Sciences AG (Austria)

**Stefan Zugal**

Evaluation Software Development GmbH (Austria)

Prioritization and Pathway Analysis by Machine Learning of mutations in Congenital Heart Defects

**Marianthi Logotheti**

e-NIOS Applications Ltd. (Greece)

**Damià Heine Suñer**

Genosalut (Spain)

A Cloud-Based Modular Database Structure for Discovering Novel Microbiome Patterns

**Mirko Jaumann**

HB Technologies AG (Germany)

Automated Linker Selection for a Protein-Protein Interaction Inhibitor Drug Discovery Platform

**Marius Yildiz**

Avergen Pharmaceuticals GmbH (Germany)

**Marcus Gastreich**

BioSolveIT GmbH (Germany)

Software Framework for Omics Signature  
and Annotation Mapping on Bladder  
Cancer Interactomes

**Arno Lukas**

emergentec biodevelopment GmbH  
(Austria)

**Maria Frantzi**

mosaiques-diagnostics GmbH (Germany)

qPCR-based PoC device for personalised  
Sepsis Management

**Jana Erjavec**

PhD, Head of Sales and Business  
Development, BioSistemika LLC

Immunoprofiling-Based Analysis  
Platform for Biomarker Discovery  
and Identification

**Josef Scheiber**

BioVariance GmbH (Germany)

**10:30 - 11:00**

**Networking Coffee**

**11:00 - 11:25**

**Keynote: The dating game: How to partner  
up to advance your small enterprise**

Co-operating with start-ups and SMEs, the  
big pharma point of view

**Anna Gran**

Johnson & Johnson Innovation

**11:25 - 12:20**

More Physical Therapist Chatbot

**Paolo Ariano**

Morecognition Srl (Italy)

In Ovo Test Controller

**Bruno Bouyssounouse**

INOVOTION (France)

BORA by BiOSENCEY: Real-Time Remote  
Monitoring and Predictive Diagnostic  
Solution Dedicated to COPD Patients

**Quentin Bodinier**

R&D Project Manager, BiOSENCEY

Biology Oriented Library Design for  
E3 Ligases

**Lars Ole Haustedt**

AnalytiCon Discovery GmbH (Germany)

Improving autoimmune conditions with  
an AI self-help app

**Vedrana Högqvist Tabor**

VLM Health UG (Germany)

**Per Almquist**

Time Well Spent AB (Sweden)

Deep Learning For Rapid and Accurate  
Diagnostics of DNA Damage in  
Individual Cells

**Helmut Hlavacs**

Robimo GmbH (Austria)

**Sergey Shaposhnikov**

Norgenotech AS (Norway)

**12:20 - 12:30**

**Wrap-up and outlook:**

**12:30**

**Close of conference**

**12:30 - 13:30**

**Break & Lunch**



**Tamara Högler**  
(PERMIDES  
coordinator,  
CyberForum e.V.)

## Opening words / Achievements of the PERMIDES Project

**Tamara Högler** joined CyberForum e.V. in 2010, a business network for high-tech and IT companies. She is Head of Innovations and International Affairs and responsible for the management of European research projects and the establishment of international cooperation with clusters. Tamara works since 2001 in EU projects and has thus long-time experience as project manager, but also as LEAD partner in FP7, Horizon 2020 and Interreg projects. Her projects mainly focus on boosting the regional innovation potential in IT-related topics. For her PhD thesis, Tamara elaborated an Integrative Approach for evaluating ICS systems by focusing on a preference-neutral target system, which she applies successfully in SME projects.

In 2001, Tamara started her research career at the Research Centre for Information Technologies (FZI) as fulltime research assistant. During her time at FZI she was deputy head of the department "Business Process Engineering and Management" and board and chairman of the personnel board. Additionally, she was Ombudsman for the quality assurance of research activities of FZI researchers. From 2003-2006 Tamara worked as research assistant at the Karlsruhe Institute of Technology (KIT), department for Applied Informatics and Formal Description Methods.

In 2006 Tamara left research to become a Product Manager for Mobile Industrial Solutions at a private company. She had projects with global players of the chemical and process industry in Germany, but also with SMEs in the manufacturing trade sector and public administrations. During her projects she gained a deep insight into practical problems that occur when evaluating the economic efficiency of mobile systems. The faced real-life challenges and requirements motivated her above mentioned PhD thesis.



**Simon Schnaiter**  
Project Manager,  
Oncotyrol – Center  
of Personalized  
Cancer Medicine  
GmbH

## Conference Chair

### Working experience:

#### **Oncotyrol – Center of Personalized Cancer Medicine**

**Since 2015**

Project management including responsibilities for IPR issues, research strategy and business development.

#### **Cemit - Center for Excellence in Medicine and IT GmbH ([www.cemit.at](http://www.cemit.at))**

##### **Project and research management**

**2011 – 2016**

Cemit GmbH offers organizational and administrative services for companies, researchers and public institutions. Simon Schnaiter is the responsible project manager of the largest customer, the translational research incubator Oncotyrol – Center for Personalized Cancer Medicine GmbH ([www.oncotyrol.at](http://www.oncotyrol.at)); annual turnover about: 4,5 mio €. Since Nov. 2014 with an increased focus on business development. Other responsibilities include (reduced since Nov. 2014) to oversee administration (HRM, accounting, legal, PR...), project development (private and public financing) and reporting to funding agencies and industrial partners in direct interaction with the CEO and CSO of Oncotyrol GmbH.

#### **Innsbruck Medical University**

##### **PhD Student, PostDoc**

**2003 – 2011 (PhD-defense in June 2009)**

Major research topics were drug development (incl. oncolytic viruses) and cell signaling. The focus on drug development led to a reduced publication activity due to IPR issues.

Publication:

Screening for MAPK modulators using an in-cell western assay.

Schnaiter S, Fürst B, Neu J, Wączek F, Orfi L, Kéri G, Huber LA, Wunderlich W.

Methods Mol Biol. 2014;1120:121-9

Patent:

Medical intervention in haematological cancers (US2011017807)

Lukas Huber, Simon Schnaiter, Inge Tinhofer, Karin Jöhrer, Richard Greil

#### **The research Institute of Molecular Pathology (IMP)**

##### **Master Thesis**

**May 2002 – 2003**

Research Topic: Embryonic bone development

Publication:

Dev Biol. 2008 May 1;317(1):132-46.

Ca<sup>2+</sup>/Calmodulin-dependent kinase II signaling causes skeletal overgrowth and premature chondrocyte maturation.

Taschner MJ1, Rafigh M, Lampert F, Schnaiter S, Hartmann C.

Dev Biol. 2008 May 1;317(1):132-46.

##### **Education:**

**1996 – 2003**

Study of biology (subject: genetics) at the University of Vienna



**Gaelle Saint-Auret**  
GENEL (France)

## Innovative Screening Process for the Development of Personalized Anticancer Treatment

Cancer is a major cause of death worldwide. It affects 14 million people annually and 8 million people die each year. Oncologists were expecting new methods to choose the best treatment strategy. In this context, one of the most promising methods is the ex vivo testing of molecules available in the patient's therapeutic arsenal, that is on mini tumors created from cells harvested from the patient himself. However, technological barriers limit the development of this type of personalized medicine on a large scale.

Thanks to its expertise acquired over years of research for development and improvement of functional screening processes, GENEL and its partners are developing a new and patented miniaturized imaging device dedicated to the observation and analysis of mini-tumors from patient cells. This cheap device is portable and enable time lapse analysis of hundreds of living mini-tumors without any labelling and with a large dynamic scale in a single view. However, there still remains a need to develop a dedicated imaging and statistical software that will assist the device to analyse compounds effect and doses for each patient. GENEL joined its forces with Quantacell to develop this integrated software.

The most challenging algorithm of this software is the dynamic analysis of mini-tumor metastasis. GENEL innovations for analysing mini-tumors may change the way that we treat cancer process.

**Gaelle Saint-Auret** is an expert in large-scale functional genomics. Her Ph.D. research involved implementing a DNA microarray platform (transcriptomic analysis and chip-on-chip) at the INSERM U905 lab in collaboration with the Genomics Laboratory of Genopole d'Evry near Paris. She focused on large scale functional genomics approaches to characterize liver cancer processes. In 2009, she joined as researcher, the Biomics Laboratory (under the direction of Xavier Gidrol) of the French Atomic Energy and Alternative Energies Commission in Grenoble (CEA). The Biomics laboratory is involved in 3D mini-organs reconstruction (tumors, acini, organ-on-chip ...) and RNAi-based functional genomics in oncology. Gaelle Saint-Auret enhanced her skills in RNA interference-based screening in oncology and develop new strategies to study microRNA biology and mechanism of action. Its team showed for the first time that miRNA can be located in the mitochondria. She participated in several studies conducted by Dr. Xavier Gidrol's team dedicated to elucidate pathways in prostate and breast cancer. She is continuing to work with Xavier Gidrol team to develop new technologies and increase insights in 3D models in cancer. Gaelle Saint-Auret, feels strongly that the different technologies developed by Biomics lab, have the potential to become a biotech firm. After a successful training in strategic and business management in the famous French business school HEC Paris, she created GENEL. GENEL provides pharmaceutical and dermocosmetic companies with innovative services to maximize their efficiency and speed up the release of new cares.



**Martin Buratti**  
Biocrates Life  
Sciences AG  
(Austria)

## Metabolic Pathway Analysis

In the field of metabolic phenotyping Metabolic Pathway Analysis is key to assess the metabolic changes in context of biological processes. In this project the goal is to develop a Pathway Analysis tool for the BIOCRATES kit software, revealing deeper insights into the biology of complex diseases.

### Martin Buratti

Martin Buratti is working at Biocrates Life Sciences, a global leader in targeted Metabolomics offering quantitative, ready-to-use kits. Since 2015 he is responsible for the development of the kit software MetIDQ, which is an essential part of Biocrates kit products. Martin has been part of the R&D team for 8 years in different positions. Starting in the IT sector, he switched to the software development department in 2013. Martin received his MSc degree in Biomedical Informatics from the Private University for Health Sciences, Medical Informatics and Technology, Hall in Tyrol, Austria.

### Dr Stefan Zugal

10/2005 – 9/2008 Working student, Quality Engineering Research Group, University of Innsbruck

Since 10/2005 Freelancing software developer; specialized in Java, Eclipse and agile software development

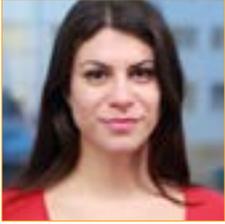
10/2008 – 12/2013 Member of Quality Engineering Research Group, University of Innsbruck; Pre-Doctoral Researcher

1/2014 – 12/2016 Member of Quality Engineering Research Group, University of Innsbruck; Post-Doctoral Researcher

Since 02/2014 Software Developer at Evaluation Software Development



**Stefan Zugal**  
Evaluation  
Software  
Development  
GmbH  
(Austria)



**Marianthi Logotheti,**  
e-NIOS  
Applications Ltd.  
(Greece)

## Prioritization and Pathway Analysis by Machine Learning of mutations in Congenital Heart Defects

Congenital heart defects are a complex disease resulting from the interaction between susceptibility genes, rare mutations and the environment. There is a need for new tools that allow a comprehensive analysis and interpretation of all genomic variants taking into account the complexity of the system

### Biopharmaceutical challenge:

Whilst genomic data can be easily accumulated, their rapid analysis and interpretation for personalized medicine applications are not available yet.

### IT-solution:

The efficient, data-driven, personalized medicine application supports standardized, unsupervised and integrative workflows, from raw data to biomarkers, and gives insights to disease stratification assisting in medical decisions



**Damia Heine Suñer**  
Genosalut  
(Spain)

### Marianthi Logotheti

Current position:

2017.02-now, R&D engineer at Enios Applications Private Limited Company

PhD studies were performed with focus on psychiatric disorders and more specifically on schizophrenia and bipolar disorder. The related research activities included the use of skin fibroblast cell model, post-mortem brain data and blood for the study of major psychiatric disorders as non-invasive methods. Functional genomics and machine learning methodologies were used in order to elucidate underlying biological mechanisms and find biomarker gene panels. The current research interests include integrated solutions for Next Generation Sequencing data analysis, as well as the development of workflows coupled with interpretation analysis for biomarker discovery and target prioritization in diseases such as Parkinson's disease.

### List of activities

Experience in molecular biology experimental techniques such as cell culturing, RNA extraction from skin fibroblast cells and quantitative real-time polymerase chain reaction.

Analysis of high-throughput genomic data related to psychiatric disorders with the use of bioinformatic tools and programming languages.

Data mining and data analysis of transcriptomic data with the exploitation of machine learning algorithms.

Next Generation Sequencing data analysis and interpretation, focused on Whole Exome Sequencing – Variant calling.

### Dr Damian Heine Suñer

Was born in 1963 in New York City, USA. He followed his studies in biology at the University of Barcelona, Spain. He received a joint PhD degree from Rutgers University and the University of Medicine and Dentistry of New Jersey (UMDNJ), USA, in 1995. The research leading to his doctorate was under the direction of Dr. Howard C. Passmore on the molecular genetics of recombination, (recombination hotspots in the mouse MHC).

In 2012 he was co-founder of the spin-off genetic diagnostic and research and development company, Genosalut, of which he is scientific director and consultant. The facilities of the company are within one of the main private hospitals in Palma, Clinica Rotger, where it performs also as its Genetics Department. The company aims to apply next generation technologies to develop a personalized medicine approach for common and rare diseases. In this context, it has developed diagnostic strategies for the genetics of obesity, fitness and sport, as well as applying exome analysis to finding the genetic causes of congenital heart diseases, cancer, epilepsy and rare diseases.

Currently he divides his time between his clinical diagnostic work as laboratory manager of the Molecular Genetics Diagnostics Laboratory of HUSE, his research activities and Genosalut. He is PI of the Genomics of Health Research Group that is englobed within the newly formed Institute for Research in Health of the Balearic Islands (IDISPA). The main interests within the research group are molecular mechanisms leading to mutation in the human genome and the genetic basis of congenital heart defects (CDH), 22q11DS and Fragile X Syndrome (FXS). To date he has (co) authored more than 50 research papers.

Dr. Heine Suñer has led active collaborations with most of the human genetic research groups in Spain, and internationally with many groups.



**Mirko Jaumann**  
HB Technologies  
AG  
(Germany)

## A Cloud-Based Modular Database Structure for Discovering Novel Microbiome Patterns

Bio-Me is developing its proprietary gut microbiome analysis platform GutCheck, which will allow rapid analysis of ~150 different bacteria from faecal sample. Through the HUNT4 database, Bio-Me has access to 30.000 samples, including extensive metadata, genetic information, medical history and a comprehensive lifestyle survey.

**Mirko Jaumann** is head of the Department of Life-Science-IT & Bioinformatics at HB Technologies AG and committed to develop software at the highest possible quality. With his background as a researcher in Bioinformatics and molecular biology, together with my decade long experience in translational biomedical research, he translates ideas from the lab into functional and efficient digital solutions.

- Since 2016: Head of Software Development at HB Technologies
- 2014-2016: Junior Workgroup Leader at the Department of Regenerative Medicine at the University Hospital Tübingen
- 2011-2013: Post Doctoral Researcher at the ENT-clinic of the University of Tübingen
- 2008-2011: PhD in Molecular Biology and Bioinformatics
- 2008: Diploma Degree in Bioinformatics



**Marius Yildiz**  
Avergen  
Pharmaceuticals  
GmbH  
(Germany)

## Automated Linker Selection for a Protein-Protein Interaction Inhibitor Drug Discovery Platform

We are establishing a small molecule drug discovery platform for protein-protein interaction inhibitors. We needed for more efficient in silico screening customized linker for compound modelling and fragments for docking.

### Dr. Marius Yildiz

Marius is the founder and CEO of Avergen Pharmaceutical GmbH. He has received his doctorate in molecular oncology from the University of Munich (LMU) and went to medical school at the University of Würzburg. Prior to founding APG, he assessed scientific licensing-in opportunities for pharma companies. He has worked in medical affairs at various pharma companies. His academic research focus was in multiple sclerosis in the Cantonal Hospital of Saint Gall and schizophrenia at the University Hospital Basel, Switzerland. He was a principal investigator in several clinical studies. He is a neurologist with a research focus in CNS indications and oncology.

### Dr. Marcus Gastreich

Gastreich holds a Diploma in Chemistry from Bonn University, Germany in 1996. After a research stay with Julian Gale at Imperial College in London, he earned his PhD in Theoretical Chemistry in Prof. Sigrid Peyerimhoff's department in Bonn modeling amorphous materials, and a minor in Bioinformatics from Prof. Thomas Lengauer at Fraunhofer in 2001. Following a brief postdoc position at Düsseldorf University with Prof. Christel Marian, Gastreich joined BioSolveIT as Application Scientist in 2002 and became the organization's Principal Application Scientist in 2006. Since 2013 he oversees the Application Science at the company and is responsible for all interfacing between users and software development. His passion encompasses clear visualization tools, applied optimization, and conceiving novel software to rapidly solve problems in drug design. He is (co-)author of several book contributions and various articles in the structure- and ligand-based arena as well as in fragment-based ligand design. Recently, in collaboration with Zealand Pharma he conceived PepSee, a tool for analysis and design of peptide therapeutics; the tool was released to the public in January 2018.



**Marcus Gastreich**  
BioSolveIT GmbH  
(Germany)



## Software Framework for Omics Signature and Annotation Mapping on Bladder Cancer Interactomes

Analysis of personalized proteomics signatures characterizing bladder cancer are to be supported by an IT solution for enabling insights in interference of disease pathology and drug target mechanisms. The tool aims at decision support for drug target identification in a precision medicine setting.

### Arno Lukas

emergentec, founded in 2002 in Vienna (Austria), develops concepts and software technologies for data rich R&D in Life Sciences and technology analogs.

During the last decade Arno has been designing molecular pathology and drug mechanism of action models for integrated decision support in biomarker, drug target and drug selection. He has contributed to the development of the software technology "e.valuation", in active use for drug positioning/repositioning.

Arno has been involved in several large, integrated European Commission funded research initiatives, and his work resulted in more than 40 peer-reviewed papers in the area of computational biology, bioinformatics and biopharmaceutical research.

Arno Lukas holds a PhD in Biochemistry from the University of Vienna.

**Arno Lukas**  
emergentec  
biodevelopment  
GmbH  
(Austria)



### Dr. Maria Frantzi

Maria Frantzi received a Master of Science in 2012 and a Doctoral degree in 2016 both in Molecular Medicine from Athens Medical School (Greece). In parallel, she received two Marie Skłodowska-Curie fellowships, as a PhD and post-doctoral fellow, during which she shared her time between University of Glasgow (UK), Biomedical Research Foundation of Academy of Athens (BRFAA, Greece) and Mosaiques diagnostics GmbH (Germany). Her main research focus includes the discovery of novel biomarkers and therapeutic targets for genitourinary cancers.

She is currently working in Mosaiques diagnostics, where she is specialized in cancer personalized medicine by integrating -omics data, through the application of proteomics technologies and system biology approaches for investigating disease pathophysiology and molecularly driven drug targets.

**Maria Frantzi**  
mosaiques-  
diagnostics GmbH  
(Germany)



## qPCR-based PoC device for personalised Sepsis Management

### Jana Erjavec

Jana Erjavec has more than 10 years of experience in Life science laboratory work and business development in the IT field. Her background is in Microbiology and she finished her PhD in Biotechnology. She has later joined BioSistemika, a BIO-IT software development company where she has been leading Sales and Business development for the Software Development Services. She strongly believes that software can significantly improve the way the data is being managed in Life Sciences and Healthcare industry bringing significant value to the end-user. With the teams of lab IoT experts, BioSistemika is collaborating with instrument and software providers worldwide. The company is setting an example, that a combination of an expert and user-friendly software is not only possible, but is also becoming a new standard

**Jana Erjavec, PhD**  
Head of Sales  
and Business  
Development,  
BioSistemika LLC  
(Slovenia)



# SPEAKERBio's



## More Physical Therapist Chatbot

**Paolo Ariano** is the co-founder, chief executive and chairman of Morecognition.com a start-up dedicated to improve and give a new approach to the rehabilitation process making it simpler and more affordable.

Morecognition is a Spin-off of the Istituto Italiano di Tecnologia where Paolo is a researcher leading the Artificial Physiology Lab, a multidisciplinary group working on ElectroMyoGraphy and mechatronics in the Rehabilitation Robotics field. He has a degree in Physics and a PhD in Neuroscience. He was researcher for the National Institute for the Physics of Matter where he interfaced for the first a time neurons with diamonds to fabricate transparent bio-sensors.

**Paolo Ariano**  
Morecognition Srl  
(Italy)



## In Ovo Test Controller

**Bruno Bouyssounouse** has over 15 years of experience in managing large projects and programs, and is currently in charge of International Partnerships at Inovotion, including overseeing distribution of our services in Japan. He has worked for startups, medium and very large enterprises, and is at ease with research contexts and large company structures and decision-making bodies. Bruno has a real entrepreneurial spirit and knows how to translate innovation into marketable products and services. He is a seasoned Project Manager, having managed numerous high-profile 4-10 M€ R&D projects and overseen multiple market analysis studies and strategic development plans. He has worked as Programme Director, Marketing Director, EU Project Manager, Project leader, and engineer. He holds a an undergraduate degree in Computer and Information Sciences at the University of California at Santa Cruz, and a Master's degree in "Management et Administration des Entreprises" from the Institut d'Administration des Entreprises of Grenoble.

He was the founder and CEO of a startup called SAXEL, « the Embedded Systems knowledge and Connections company », bridging the gap between world-class academic researchers and top companies.

**Bruno Bouyssounouse**  
INOVOTION  
(France)



## BORA by BiOSECY: Real-Time Remote Monitoring and Predictive Diagnostic Solution Dedicated to COPD Patients

**Dr. Quentin Bodinier** holds a M. Sc. and a Ph.D. in signal processing and telecommunication systems. He has a proven record of international publications in the field of telecommunication research and biomedical signal processing as well as a strong experience in software development as an independent contractor, and is a regular speaker at several engineering schools on the topic of signal processing, statistics and software development. Dr. Bodinier is now leading applied research and software development activities at BiOSECY, a French MedTech startup on a mission to improve the quality of life of patients with chronic respiratory diseases.

**Quentin Bodinier**  
R&D Project  
Manager,  
BiOSECY  
(France)



**Lars Ole Haustedt**  
AnalytiCon  
Discovery GmbH  
(Germany)

## Biology Oriented Library Design for E3 Ligases

The overall goal is a platform development of E3 Ligase modulators enabling drug discovery projects in personalized medicine addressing key drivers of tumor genesis by proteasome mediated protein degradation.

By combination of BioSolveIT's in-silico fragment based drug discovery approach with AnalytiCon's rational Biology Oriented Library Design program AnalytiCon will be enabled to assemble an E3 ligase focused library ready for biological profiling. The generation of E3 ligase focused library will be a tremendous advantage in addressing key modulators in tumor genesis. The substrate specificity of E3 ligases can be directly modulated by small molecule ligands. Access to a focused E3 ligase modulator library will allow to fine tune the recruitment of tumor genesis relevant proteins by the E3 ligase and the tagging (ubiquitylation) for proteasome degradation. This approach is perfectly set-up to be implemented into a next generation personalized cancer treatment by selective modulation of E3 ligase activity and degradation of tumor progression key players.

**Lars Ole Haustedt** is director projects & innovation at AnalytiCon Discovery GmbH, a natural product company. In his current role he is mainly responsible for business development in Europe focusing on the pharmaceutical industry and is heading the computational chemistry department at AnalytiCon.

He was leading several projects regarding natural product based library generation. Currently he is involved in the concept and realization of rational designed natural product inspired libraries, natural product development platforms and their application in drug discovery programs. During now 12 years at AnalytiCon he managed several projects in the pharma, food and cosmetic arena ranging from hit-to-lead programs up to the development of marketed products.

Lars Ole Haustedt studied chemistry and received his PhD from the University of Hannover working with H. Martin R. Hoffmann on a natural product synthesis. For two years he joined the group of Paul A. Wender at Stanford University working on novel synthetic methodology and natural product synthesis. In 2005 he joined AnalytiCon Discovery heading a laboratory for library synthesis.



**Vedrana Höggqvist Tabor**  
VLM Health UG  
(Germany)

## Improving autoimmune conditions with an AI self-help app

BOOST THYROID is a personalized companion app for Hashimoto's, thyroid disease affecting 200M+ people, combining Big Data, Machine Learning, research and conversational AI to better health and patient-doctor talk.

### Dr. Vedrana Höggqvist Tabor

Vedrana is the CEO and co-founder of Boost Thyroid, a digital health company focused on solving health complications caused by thyroid autoimmune conditions and empowering people to live healthy and age well.

Vedrana's goal is to increase public awareness as well as research interest in thyroid conditions, predominantly female conditions, and prevent health complications coming from delayed diagnoses.

Born in Zagreb, Croatia, Vedrana obtained her doctorate degree at Humboldt University in Berlin, and has worked on cancer research in some of the world's most renowned institutions, such as the Netherlands Cancer Institute and Karolinska Institutet. Before Boost Thyroid, Vedrana was Director of Scientific Research at the period app Clue. Vedrana is a digital health advocate and a frequent speaker on the power of digital tools at events including TEDx and WIRED Health and at universities such as Oxford, Stanford, and Columbia. Vedrana believes that the right to health information is one of our basic human rights.



**Per Almquist**  
Time Well Spent  
AB  
(Sweden)

### Per Almquist

Work experience

Jun 17– Freelance Software Developer, Epidemic Sound.

Took a new product from idea to beta. Roles as it-architect, user research, frontend (React.js) and backend (Kotlin) developer.

Feb–Jun 17 Freelance Software Developer, Panagora

Created a special purpose website for very high usage spikes (going from 0 to 1M requests in a minute). Roles as it-architect, frontend (React.js) and backend (Serverless) developer.

May 16-Feb 17 Co-Founder, Left or Right

Founded a startup and raised angel investment, built an MVP and iterated on it. Roles as CDO, data scientist, user researcher, product and software development.

May 14-Jun 16 Software Developer, Clue by Biowink, Berlin

Part of building the female health app from a few thousand to 5 million monthly active users. Roles as interim CTO, (sole) backend developer, iOS developer, project manager and user researcher.

# SPEAKERBio's



**Helmut Hlavacs**  
Robimo GmbH  
(Austria)

## Deep Learning For Rapid and Accurate Diagnostics of DNA Damage in Individual Cells

LearnDNA project is focused on developing a novel machine learning-based algorithm addressing an urgent need for fast and efficient classification of patients' DNA damage. The damage is assessed by the high throughput comet assay allowing running hundreds of samples a day. However, image classification and analysis remain a serious bottle neck. Our novel method will increase the turnover of the existing assay at least 10-fold.

### Univ.-Prof. Dr. Helmut Hlavacs

Univ.-Prof. Dr. Helmut Hlavacs received his masters degree (1993) and his PhD (2001) from the Technical University of Vienna (Technical Mathematics). He worked for several companies, including IBM and Bank Austria. In 2001 he became assistant professor, and in 2004 he became associate professor (Habilitation) at the Faculty of Computer Science at the University of Vienna. From 2011 on he has been appointed head of the Research Group Entertainment Computing, as well as full professor.

Prof. Hlavacs has a background in numerical mathematics, parallel systems, discrete event simulation, performance modelling of distributed applications and systems, energy efficiency, and quality of service of networked systems. His current research interests include issues of entertainment computing, including quality of experience, mobile entertainment, multimedia performance, computer games, serious games, communication for special interest groups, game AI, and virtual reality. Prof. Hlavacs is the author of one textbook, several technical reports and over 200 peer-reviewed publications presented at international conferences and published in international journals. For a complete list see <http://www.ani.univie.ac.at/~hlavacs/publications.html>. Together with two co-founders, Prof. Hlavacs founded the spin-off Robimo GmbH, dealing with multicopters, image analysis, 3D-reconstruction, and deep learning.

Dr Sergey Shaposhnikov, co-founder and Managing Director at the Norwegian biomedical technology company Norgenotech AS; Research scientist at the Department of Nutrition, Medical Faculty of the University of Oslo.



**Sergey Shaposhnikov**  
Norgenotech AS  
(Norway)

### Sergey Shaposhnikov

Sergey is a DNA scientist with a passion for converting academic research results into valuable products available to the market. Responsible for numerous innovations; co-author of many of the most highly cited papers in the area of DNA damage and DNA repair. His current devotion is turning DNA comet technology into a set of diagnostic tools for prediction, monitoring and assessment of therapeutic response. Applications also include environmental monitoring and safety assessment of novel chemicals and drugs.





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