



qPCR dPCR & NGS 2017

3rd – 7th April 2017

Symposium & Exhibition & Workshops

*Liquid Biopsy, Integrative Big Data Analysis,
Biomarker Signature ... and beyond*

@TUM, Freising-Weihenstephan, Germany



qPCR dPCR & NGS 2017

8th international Gene Quantification Event

Scientific Symposium

Industrial Exhibition & Application Workshops

***“Liquid Biopsy, Integrative Big Data Analysis,
Biomarker Signature ... and beyond”***

Scientific coordination: Michael W. Pfaffl
Animal Physiology & Immunology, Freising – Weihenstephan
TUM School of Life Sciences
Weihenstephaner Berg 3
Technical University Munich (TUM)
85354 Freising
Germany

www.qPCR-dPCR-NGS-2017.net



qPCR dPCR & NGS 2017 -- Event Agenda Overview

online agenda HTML => <http://agenda.qPCR-dPCR-NGS-2017.net>

online agenda PDF => <http://agendaPDF.qPCR-dPCR-NGS-2017.net>

	Lecture Hall no. 14 (HS 14)	Lecture Hall no. 15 (HS 15)	Foyer & Seminar Rooms S1 & S2
Sunday 2 nd April			12:00 – 18:00 Industrial Exhibition Build up
			15:00 – 18:00 Arrival & Registration
Monday 3 rd April	10:00 – 10:30 Opening of the Symposium Welcome by Michael W. Pfaffl Dean of WZW Thomas Becker BDQ Chief Editor Stephen Bustin		8:00 – 10:00 Arrival & Registration and Poster Setup in Foyer lower level
	10:30 – 12:30 Liquid Biopsies & Exosomes		10:00 – 21:00 Industrial Exhibition in Foyer
	12:30 – 14:00 Lunch		
	14:00 – 18:00 Liquid Biopsies & Molecular Diagnostics (1)	14:00 – 18:00 Next Generation Sequencing Integrative Data Analysis	
	18:00 – 22:00 Reception @ Industrial Exhibition and Poster Session Area		18:00 – 22:00 Main Poster Session in Foyer lower level
Tuesday 4 th April	8:30 – 12:30 Digital PCR (1)	8:30 – 12:30 Liquid Biopsies & Molecular Diagnostics (2)	8:30 – 14:00 Industrial Exhibition in Foyer
	12:30 – 14:00 Lunch		12:30 – 14:00 Lunch Poster Session in Foyer lower level
	13:00 – 14:00 Technical Lunch-time Seminars by IDT	13:00 – 14:00 Technical Lunch-time Seminars by MultiD & TATAA	
	14:00 – 18:00 Next Generation Sequencing	14:00 – 18:00 Non-coding RNAs	14:00 – 18:00 Industrial Exhibition in Foyer
19:00 – 22:00 Symposium Gala Dinner 22:00 – late After Dinner Party Location: Bräustüberl Weihenstephan, Weihenstephaner Berg 10, 85354 Freising European – Bavarian - Asian Buffet, Music & Dancing & Cocktails			
Wednesday 5 th April	9:00 – 12:30 MIQE & qPCR Quality Control	9:00 – 12:30 Digital PCR (2)	9:00 – 14:00 Industrial Exhibition in Foyer
	12:30 – 14:00 Lunch		12:30 – 14:00 Lunch Poster Session in Foyer lower level
	12:30 – 13:30 Technical Lunch-time Seminars by Fred Kramer	12:30 – 13:30 BDQ Editors Meeting	
	14:00 – 16:30 qPCR data Analysis	13:45 – 14:00 BDQ Poster Awards	14:00 – 17:00 Poster Take Down in Foyer lower level
	16:30 – 17:00 Closing of the Symposium Michael W. Pfaffl	14:00 – 16:30 MicroGenomics & Single-Cell-qPCR	
Thursday 6 th April	Seminar Rooms S1 - S3 & Computer Seminar Rooms PU26 & PU26A 9:00 - 17:00		
Friday 7 th April	qPCR, dPCR & NGS Application Workshops: 1) Basic real-time qPCR Application Workshop (2-days) hosted by TATAA Biocenter 2) Analysis of qPCR data - how to get reliable results compliant with guidelines (2-days) hosted by TATAA Biocenter 3) digital PCR (2-days) hosted by Bio-Rad 4) NGS – Library construction and quality control (2-days) hosted by TATAA Biocenter 5) NGS data analysis workshop (2-days) hosted by Genomatix		

Agenda - qPCR dPCR & NGS 2017**Monday, 3rd April 2017****Welcome & Opening of the Symposium**

Location: Lecture hall 14

10:00am
-
10:30am

Michael W. Pfaffl
Scientific Coordinator of the qPCR dPCR & NGS Event

Thomas Becker
Dean, TUM School of Life Sciences Weihenstephan (WZW)

Stephen A. Bustin
Editor in Chief – Biomolecular Detection & Quantification

Liquid Biopsies & Exosomes

Location: Lecture hall 14

Chair: **Michael W Pfaffl**, TUM, Germany
Chair: **Stephen A. Bustin**, Anglia Ruskin University, United Kingdom

10:30am
-
12:30pm

Extracellular Vesicles and their Potential as Biomarkers and Therapeutics

Jan O Lötvall University of Gothenburg, Sweden

Ultrasensitive mutation detection in liquid biopsies using SiMSen-Seq

Anders Ståhlberg University of Gothenburg, Sweden

Droplet-based digital PCR for cancer patient follow up

Valerie Taly Université Paris Descartes/ INSERM/ CNRS, France

Exosomes - Advancing Liquid Biopsy Diagnostics

Mikkel Noerholm Exosome Diagnostics, Germany

12:30pm
-
2:00pm

Lunch

Location: University Mensa

Liquid Biopsies & Molecular Dx 1

Location: Lecture hall 14

Chair: **Jo Vandesompele**, Biogazelle, Belgium
Chair: **An Hendrix**, Ghent University, Belgium

2:00pm
-
3:30pm

mRNA capture sequencing enabled liquid biopsy precision oncology

Jo Vandesompele
Biogazelle, Ghent, Belgium

Sensitive NGS method for the analysis of microbial and viral nucleic acid in cell free RNA

Martin Heine
NuGEN Technologies, United States of America

Identification Of Extracellular Vesicle-Specific Biomarkers

Jan Van Deun^{1,3}, **Glenn Vergauwen**^{1,3}, **Pieter Mestdagh**^{2,3}, **Jo Vandesompele**^{2,3}, **Olivier De Wever**^{1,2}, **An Hendrix**^{1,2}
1: Laboratory of Experimental Cancer Research, Department of Radiation Oncology and Experimental Cancer Research, Ghent University, Belgium; 2: Department of Medical Genetics, Ghent University, Belgium; 3: Cancer Research Institute Ghent, Belgium

NGS Integrative Data Analysis

Location: Lecture hall 15

Chair: **Vladimir Benes**, EMBL, Germany
Chair: **Daniel Simon Brewer**, University of East Anglia, UK

Meta-OMIC reconstruction in the gut microbiome of wild primates: Impactions for human origins

Andres Gomez
J. Craig Venter Institute, United States of America

Gut Microbiota Sequencing: From Single Studies To Large-Scale Analysis

Thomas Clavel¹, **Ilias Lagkouvardos**²
1: University Hospital RWTH Aachen, Germany; 2: ZIEL Institute, TU Munich, Freising, Germany

From qualitative to quantitative data in microbiome analysis: Using metagenomics for qPCR validation.

Michael Schloter^{1,2}, **Gisle Vestergaard**¹, **Anne Schoeler**¹, **Stefanie Schulz**¹, **Fabian Bergkemper**¹
1: Helmholtz Zentrum München, Germany; 2: Technical University of Munich, Germany

Coffee Break

Location: Foyer

3:30pm - 4:00pm	Coffee Break Location: Foyer	
4:00pm - 6:00pm	<p>NGS and qPCR analysis of RNA and microRNA in Biofluids and Exosomes <u>Michael Thorsen</u> Exiqon, Denmark</p> <p>Routine Next-Generation-Sequencing of Brain Tumors <u>Felix Sahn</u> University Hospital Heidelberg, Germany</p> <p>BD Genomics: An Integrated Workflow For Single Cell Analysis That Helps To Uncover Tumor Heterogeneity <u>Wieland Keilholz</u> BD, Germany</p> <p>Nucleosome association of cell-free DNA informs about gene expression <u>Peter Ulz</u>¹, <u>Gerhard Thallinger</u>², <u>Martina Auer</u>¹, <u>Ricarda Graf</u>¹, <u>Karl Kashofer</u>³, <u>Stephan Wenzel Jahn</u>³, <u>Luca Abete</u>³, <u>Gunda Pristauz</u>⁴, <u>Edgar Petru</u>⁴, <u>Jochen Geigl</u>¹, <u>Ellen Heitzer</u>¹, <u>Michael Speicher</u>¹ 1: Institute of Human Genetics, Medical University Graz, Austria; 2: Institute of Molecular Biotechnology, University of Technology, Graz, Austria; 3: Institute of Pathology, Medical University of Graz, Graz, Austria; 4: Department of Obstetrics and Gynecology, Medical University of Graz, Graz, Austria</p>	<p>Unravelling The Evolution Of Prostate Cancer Through Whole Genome Sequence Data. <u>Daniel S. Brewer</u>¹, <u>David Wedge</u>^{2,3}, <u>Christopher S.. Foster</u>⁴, <u>David Neal</u>⁵, <u>G. Steve Bova</u>⁶, <u>Andy G. Lynch</u>⁵, <u>Colin S. Cooper</u>^{7,1}, <u>Ros Eeles</u>⁷ 1: Norwich Medical School, University of East Anglia, United Kingdom; 2: Cancer Genome Project, Wellcome Trust Sanger Institute, UK; 3: Oxford Big Data Institute & Oxford Centre for Cancer Gene Research, Wellcome Trust Centre for Human Genetics, UK; 4: HCA Pathology Laboratories, London, UK; 5: Cancer Research UK Cambridge Institute, Cambridge, UK; 6: University of Tampere and Tampere University Hospital, Finland; 7: Institute of Cancer Research, UK</p> <p>Nanopore Sequencing - Entering New Next <u>Vladimir Benes</u>, <u>Jonathan Landry</u>, <u>Jonathon Blake</u>, <u>Bettina Haase</u>, <u>Dinko Pavlinic</u>, <u>Jan Provaznik</u> EMBL, Germany</p> <p>Overcoming NGS analysis bottlenecks with a systematic, scalable system <u>Amit Sinha</u> Basepair, United States of America</p> <p>Evaluation of Regulatory Small Variants in Human Genetics <u>Christian Zinser</u> Genomatix GmbH, Germany</p>
6:00pm - 10:00pm	<p><u>Get-Together Reception @ Industrial Exhibition and @ Poster Session Area</u> Location: Foyer & Foyer - lower level</p>	<p><u>Main Postersession</u> Location: Foyer - lower level</p> <p>All posters will be displayed in all three poster sessions (Monday evening and two lunch poster sessions). Poster setup is on Monday afternoon and all posters are available until Wednesday afternoon.</p>

Tuesday, 4th April 2017

8:30am - 10:30pm	<p><u>digital PCR 1</u> Location: Lecture hall 14</p> <p>Chair: Jim Huggett, LGC & University of Surrey, UK Chair: Afif M. Abdel Nour, Holy Spirit University of Kaslik, Lebanon (Lebanese Republic)</p> <p>Unprecedented accuracy when using digital PCR <u>Jim Huggett</u> LGC & University of Surrey, United Kingdom</p> <p>Liquid profiling of RNA and DNA for treatment response prediction and monitoring of cancer patients <u>Christof Winter</u> TU München, Germany</p>	<p><u>Liquid Biopsies & Molecular Dx 2</u> Location: Lecture hall 15</p> <p>Chair: Kenneth W Witwer, Johns Hopkins University School of Medicine, United States of America Chair: Michael W Pfaffl, TUM, Germany</p> <p>Extracellular Vesicle Subsets and Sampling Strategies for Nucleic Acid Profiling <u>Kenneth W Witwer</u> Johns Hopkins University School of Medicine, United States of America</p> <p>Cellular and Extracellular miRNAs are Blood Compartment-Specific Diagnostic Targets for Detection and Survival Prediction in Sepsis <u>Marlene Reithmair</u>¹, <u>Dominik Buschmann</u>^{1,2}, <u>Melanie Märte</u>³, <u>Benedikt Kirchner</u>², <u>Daniel Hagl</u>^{3,4}, <u>Ines Kaufmann</u>⁴, <u>Martina Pfob</u>¹, <u>Alexander Chouker</u>³, <u>Ortrud Steinlein</u>¹, <u>Michael W. Pfaffl</u>², <u>Gustav Schelling</u>³ 1: Institute of Human Genetics, University Hospital, LMU Munich, Germany; 2: Division of Animal Physiology and Immunology, TUM</p>
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	<p>RT-Digital PCR for the evaluation of residual disease in chronic myeloid leukaemia <u>Mary Alikian</u>^{1,2}, <u>Olga Tatarinova</u>¹, <u>Alistair Reid</u>¹, <u>Jane Apperley</u>^{2,3}, <u>Letizia Foroni</u>^{2,3} 1: Imperial Molecular Pathology, Imperial Healthcare Trust, Hammersmith Hospital, London, UK; 2: Centre for Haematology, Faculty of Medicine, Imperial College London, London, UK; 3: Clinical Haematology, Imperial College Healthcare NHS Trust, London, UK</p> <p>Calibrating Quantitative Measurements of HIV DNA Using Digital PCR <u>Eloise Busby</u>¹, <u>Alexandra Whale</u>¹, <u>R. Bridget Ferns</u>², <u>Paul R Grant</u>³, <u>Gary Morley</u>¹, <u>Jonathan Campbell</u>¹, <u>Carole Foy</u>¹, <u>Eleni Nastouli</u>^{3,4}, <u>Jim Huggett</u>^{1,5}, <u>Jeremy A Garson</u>^{2,6} 1: Molecular and Cell Biology Team, LGC, Teddington, UK; 2: Department of Infection, Division of Infection and Immunity, University College London, UK; 3: Department of Clinical Virology, University College London Hospital NHS Foundation Trust, and the UCL/UCLH NIHR Biomedical Research Centre, London, UK; 4: Department of Population Policy and Practice, UCL GOS Institute of Child Health, London, UK; 5: School of Biosciences & Medicine, Faculty of Health & Medical Science, University of Surrey, Guildford, GU2 7XH, UK; 6: National Transfusion Microbiology Laboratories, NHS Blood and Transplant, Colindale, London, UK</p>	<p>Weihenstephan, Technical University Munich; 3: Department of Anesthesiology, University Hospital, LMU Munich; 4: Department of Anaesthesiology, Neuperlach Hospital, City Hospitals of Munich, Munich</p> <p>Diagnostic Performance of Plasma DNA Methylation Profiles in Lung Cancer, Pulmonary Fibrosis and COPD <u>Andreas Weinhäusel</u>¹, <u>Matthias Wielscher</u>¹, <u>Klemens Vierlinger</u>¹, <u>Rolf Ziesche</u>², <u>Andrea Gsur</u>², <u>Christa Noehammer</u>¹ 1: AIT Austrian Institute of Technology GmbH, Molekulare Diagnostik, Austria; 2: Medical University Vienna, Austria</p> <p>HP's Advanced Microfluidic Technology <u>Alexander N. Govyadinov</u> HP Incorporated, United States of America</p>
<p>10:30am - 11:00pm</p>	<p>Coffee Break Location: Foyer</p>	
<p>11:00am - 12:30pm</p>	<p>Monitoring EGFR mutations in lung cancer patients using 3-color Crystal Digital PCR. <u>Rémi Dangla</u> Stilla Technologies, France</p> <p>Transferring qPCR Methods into a Droplet Digital PCR Format – Experiences from Official Food and Feed Control in GMO Analysis <u>Sven Pecoraro</u> Bavarian Health and Food Safety Authority, Germany</p> <p>Simultaneous quantification of DNA copy number and transcripts by Selfie-dPCR. <u>Petar Podlesniy</u>¹, <u>Ramon Trullas</u>² 1: Institute of Biomedical Research of Barcelona, Barcelona, Spain; 2: Institute of Biomedical Research of Barcelona, Barcelona, Spain</p>	<p>NGS analysis of the Liquid biopsy in metastatic breast cancer patients: a pilot study. <u>Pamela Pinzani</u>, <u>Francesca Salvianti</u>, <u>Mario Pazzagli</u> University of Florence, Italy</p> <p>Validation Of Clinical Diagnostic Real-Time PCR Kits On AriaMX-DX <u>Anna Gani</u>, <u>Silvia Mason</u> AB ANALITICA, Italy</p> <p>Going to the limits of Multiplex qPCR. <u>Olfert Landt</u> TIB MOLBIOL, Berlin, Germany</p>
<p>12:30pm - 2:00pm</p>	<p>Lunch Postersession Location: Foyer - lower level</p> <p>All posters will be displayed in all three poster sessions (Monday evening and two lunch poster sessions). Poster setup is on Monday afternoon and all posters are available until Wednesday afternoon.</p> <p>Lunch Location: University Mensa</p>	

<p>1:00pm - 2:00pm</p>	<p><u>Technical Lunch-time Seminar by IDT</u> Location: Lecture hall 14</p> <p>Chair: Caifu Chen, Integrated DNA Technologies, USA</p> <p>Novel multiplex rhPCR and its applications in amplicon sequencing. Caifu Chen Integrated DNA Technologies, United States of America</p> <p>rhAmp™ A Better and Cost-Effective New SNP Genotyping Solution. Kristin Beltz Integrated DNA Technologies, Inc., United States of America</p>	<p><u>Technical Lunch-time Seminar by MultiD & TATAA</u> Location: Lecture hall 15</p> <p>Chair: Mikael Kubista, TATAA Biocenter AB, Sweden</p> <p>GenEx -- The ultimate tool for qPCR data analysis. Mikael Kubista¹, Amin Forootan² 1: TATAA Biocenter AB, Göteborg, Sweden; 2: MultiD Analyses AB, Göteborg, Sweden</p>
<p>2:00pm - 4:00pm</p>	<p><u>Next Generation Sequencing</u> Location: Lecture hall 14</p> <p>Chair: Justin O'Grady, University of East Anglia, UK Chair: Dominik Buschmann, TUM, Germany</p> <p>Improving the Diagnosis and Management of Serious Infection Using Nanopore Metagenomic Sequencing Justin O'Grady University of East Anglia, United Kingdom</p> <p>Applications of an <i>in vitro</i> Experimental Model for a Systems Level Understanding of Health and Disease States of the Human Oral Microbiome Anna Elisabet Edlund¹, Shibu Yooseph², Wenyuan Shi³, Xuesong He³, Jeffrey Scott McLean⁴ 1: J Craig Venter Institute, Genome Medicine Group, CA, USA; 2: University of Central Florida, College of Engineering and Computer Science, FL, USA; 3: University of California Los Angeles, School of Dentistry, CA, USA; 4: University of Washington, School of Dentistry, WA, USA</p> <p>A Novel Approach for Selective Enrichment of Custom Gene Targets for Oncology Research Bjoern Textor¹, Andrew Barry², Daniel Kraushaar³, Sarah Bowman³, Lynne Apone², Kruti Patel³, Noa Henig³, Amy Emerman³, Theodore Davis², Salvatore Russello², Cynthia Hendrickson³ 1: New England Biolabs GmbH, Germany; 2: New England Biolabs Inc., U.S.; 3: Directed Genomics Inc., U.S.</p> <p>Liquid biopsies, biomarker signatures, and beyond - why standardization of small RNA-Seq matters Dominik Buschmann^{1,2}, Anna Haberberger¹, Benedikt Kirchner¹, Melanie Spornraft¹, Irmgard Riedmaier^{4,5}, Gustav Schelling³, Michael W. Pfaffl¹ 1: Department of Animal Physiology and Immunology, TUM Weihenstephan, Germany; 2: Institute of Human Genetics, LMU Munich, Germany; 3: Department of Anesthesiology, University Hospital, LMU Munich, Germany; 4: Department of Physiology, TUM Weihenstephan, Germany; 5: Eurofins Medigenomix Forensik GmbH, Ebersberg, Germany</p>	<p><u>non-coding RNAs</u> Location: Lecture hall 15</p> <p>Chair: Pieter Mestdagh, Ghent University, Belgium Chair: Michael W Pfaffl, TUM, Germany</p> <p>Cancer-specific long non-coding RNAs as novel biomarkers and targets for therapy. Pieter Mestdagh Ghent University, Belgium</p> <p>The potentials of isomiRs -- a new dimension in biomarker research. Benedikt Kirchner, Ming Wu, Dominik Buschmann, Michael W. Pfaffl Animal Physiology & Immunology, TUM School of Life Sciences Weihenstephan, Technical University of Munich, Freising, Germany</p> <p>Epitranscriptomic regulation of non-coding RNAs Stefan Ludwig Ameres IMBA, Austria</p> <p>Extracellular Vesicles and Their Associated Cargos in Health and Disease. Mirco Castoldi University of Düsseldorf, Germany</p>
<p>4:00pm - 4:30pm</p>	<p><u>Coffee Break</u> Location: Foyer</p>	

<p>4:30pm - 6:00pm</p>	<p>Single-tube library prep solutions for high quality DNA sequencing Yi Jin^{1,2}, Marissa Bolduc², David Bays², Shuhong Li², Hongbo Liu², David Schuster^{1,2} 1: Quantabio, United States of America; 2: QIAGEN Beverly, United States of America</p> <p>Forensic Application Of Microbiome Profiling Lisa-Marie Link^{1,2}, Jens Söchtig², Irmgard Riedmaier-Sprenzel², Burkhard Rolf² 1: Eurofins Medigenomix GmbH, Germany; 2: Eurofins Medigenomix Forensik GmbH, Germany</p> <p>Challenges of targeted NGS analyses David Langenberger ecSeq GmbH, Germany</p>	<p>In silico functional analysis of microRNA : Towards the characterisation of miRNAs as biomarkers. Artemis Hatzigeorgiou Univeristy of Thessaly, Greece</p> <p>A novel assay system for improved specificity and sensitivity of miRNA detection for all the major model organisms Simon Baker Bioline Reagents Limited, United Kingdom</p> <p>Two-tailed RT-qPCR: a Novel Method for Highly Accurate miRNA Quantification Lukas Valihrach¹, Peter Androvic¹, Julie Elling², Robert Sjoback², Mikael Kubista^{1,2} 1: Institute of Biotechnology AS CR, Czech Republic; 2: TATAA Biocenter AB, Sweden</p>
<p>7:00pm - late ☺</p>	<p><u>Symposium Dinner & After Dinner Party @ Bräustüberl</u> Location: Bräustüberl Weihenstephan, Weihenstephaner Berg 10, 85354 Freising European – Bavarian - Asian Buffet Music & Dancing & Cocktails www.Braeustueberl-Weihenstephan.de</p>	
<p><u>Wednesday, 5th April 2017</u></p>		
<p>9:00am - 10:30pm</p>	<p><u>MIQE & qPCR Quality Control</u> Location: Lecture hall 14</p> <p>Chair: Stephen Andrew Bustin, Anglia Ruskin University, UK Chair: Jan M Ruijter, Academic Medical Center, Netherlands, The</p> <p>Why Are We Still Using qPCR For The Quantification Of Nucleic Acids? Stephen Andrew Bustin Anglia Ruskin University, United Kingdom</p> <p>Target Concentration and Replicate qPCR Reactions Jan M Ruijter¹, Maurice WJ de Ronde², Antoni Bayes Genis³, Yigal Pinto⁴, Sara-Joan Pinto² 1: Anatomy, Embryology and Physiology, Academic Medical Center, Amsterdam, the Netherlands; 2: Vascular Medicine & Clinical Epidemiology, Biostatistics and Bioinformatics, Academic Medical Center, Amsterdam, the Netherlands; 3: Heart Failure Unit, Germans Trias i Pujol Hospital, Universitat Autònoma, Barcelona, Spain; 4: Experimental Cardiology, Academic Medical Center, Amsterdam, the Netherlands</p> <p>Laboratory Automation And Data Management In Diagnostics – qPCR ZIKV Detection And Quantification Klemen Zupancic¹, Misa Korva², Tatjana Avsic Zupanc², Urska Cepin³, Manca Pirc³, Laura Simdon⁴, Matjaz Hren^{1,3} 1: SCINOTE, LLC, United States of America; 2: Institute of Microbiology and Immunology, Faculty of Medicine, University of Ljubljana, Slovenia; 3: BioSistemika, d.o.o., Slovenia; 4: Gilson, Inc., United States of America</p>	<p><u>digital PCR 2</u> Location: Lecture hall 15</p> <p>Chair: Afif M. Abdel Nour, Holy Spirit University of Kaslik, Lebanon (Lebanese Republic) Chair: David Svec, TATAA Biocenter, Czech Republic</p> <p>Droplet Digital PCR for MYD88^{L265P} Mutation Detection in Waldenström Macroglobulinemia: Minimal Residual Disease Monitoring and Characterization on Circulating Free DNA Daniela Drandi¹, Elisa Genuardi¹, Irene Dogliotti¹, Martina Ferrante¹, Cristina Jimenez², Francesca Guerrini³, Mariella Lo Schirico¹, Vittorio Muccio¹, Barbara Mantoan¹, Milena Gilestro⁴, Paola Omedè⁴, Sara Galimberti³, Lorella Orsucci⁴, Federica Cavallo¹, Ramon Garcia Sanz², Mario Boccardo^{1,4}, Marco Ladetto⁵, Simone Ferrero¹ 1: Department of Molecular Biotechnologies & Health Sciences, University of Torino, Italy; 2: Servicio de Hematología, Hospital Universitario de Salamanca, Salamanca, Espania; 3: Clinical & Experimental Medicine, University of Pisa, Italy; 4: Division of Hematology, ASO S.Giovanni Battista, Torino, Italy; 5: Division of Hematology, Az Ospedaliera SS Antonio e Biagio, Alessandria, Italy</p> <p>Partition Volume in dPCR -- Monodispersity Not Really Important Joel Tellinghuisen Vanderbilt University, United States of America</p> <p>Automated cell picking and single cell digital PCR focusing on mitochondrial transfer David Svec^{1,2} 1: Institute of Biotechnology AS CR, Prague; 2: TATAA Biocenter, Czech Republic</p>
<p>10:30am - 11:00pm</p>	<p><u>Coffee Break</u> Location: Foyer</p>	

<p>11:00am - 12:30pm</p>	<p>Validation of a qPCR method - Determining Limit of Detection, Limit of Quantification and Dynamic Range. Mikael Kubista¹, Robert Sjöback¹, Jens Björkman¹, Björn Sjögreen², Lucas Luke Linz³, Amin Forootan² 1: TATAA Biocenter AB, Sweden; 2: MultiD Analyses AB, Sweden; 3: LGC Douglas Scientific USA</p> <p>Influence of PCR consumables on the accuracy of real-time PCR experiments and NGS sample preparation Gerrit Gutzke, Hanna Oldfield, Emily Flowers 4titude Ltd, Germany</p> <p>How to monitor analytical and technical factors influencing qPCR Jens Björkman TATAA Biocenter, Sweden</p>	<p>Digital PCR Inhibition Mechanisms Using Standardized Inhibitors Representing Soil And Blood Matrices Maja Sidstedt^{1,2}, Erica L. Romsos³, Ronny Hedell^{2,4}, Carolyn R. Steffen³, Peter M. Vallone³, Peter Rådström¹, Johannes Hedman^{1,2} 1: Applied Microbiology, Department of Chemistry, Lund University, SW; 2: Swedish National Forensic Centre, Linköping, SW; 3: Materials Measurement Laboratory, National Institute of Standards and Technology, Gaithersburg, USA; 4: Department of Mathematical Sciences, Chalmers University of Technology and University of Gothenburg, SW</p> <p>dpcReport: web server and software suite for unified analysis of digital PCRs and digital assays Michał Burdukiewicz¹, Jim Huggett², Alexandra Whale², Boris Fehse³, Piotr Sobczyk⁴, Paweł Mackiewicz¹, Andrej-Nikolai Spiess⁵, Peter Schierack⁶, Stefan Rödiger⁶ 1: Department of Genomics, University of Wrocław, PO; 2: Molecular and Cell Biology Team, LGC, Teddington, UK; 3: Research Dept. Cell and Gene Therapy, Department of SCT, University Medical Center Hamburg-Eppendorf, Hamburg, DE; 4: Faculty of Pure and Applied Mathematics, Wrocław University of Science and Technology, Wrocław, PO; 5: University Medical Center Hamburg-Eppendorf, Germany; 6: Institute of Biotechnology, Brandenburg University of Technology Cottbus-Senftenberg, Germany</p> <p>A Statistical Contribution to the Uncertainty of Concentration Measurements Using Digital PCR Andreas Kummrow, Annabell Plauth, Martin Hussels Physikalisch-Technische Bundesanstalt, Germany</p>
<p>12:30pm - 1:30pm</p>	<p><u>Technical Lunch-time Seminar by F. Kramer</u> Location: Lecture hall 14 Chair: Fred Russell Kramer, Rutgers University, United States of America</p> <p>Multiplex Real-Time PCR Assays that measure the Abundance of Extremely Rare Mutations Associated with Cancer Fred Russell Kramer Rutgers University, United States of America</p>	<p><u>BDQ Editor Meeting (12:30pm - 1:30pm)</u> Location: Lecture hall 15 Chair: Stephen Andrew Bustin, Anglia Ruskin University, United Kingdom Chair: Justin O'Grady, University of East Anglia, United Kingdom</p> <p><u>BDQ Poster Award (1:45pm – 2:00pm)</u> Location: Lecture hall 15 Chair: Jim Huggett, LGC & University of Surrey, UK Chair: Lynn Sherrer, Elsevier, United States of America</p>
<p>12:30pm - 2:00pm</p>	<p><u>Lunch Postersession</u> Location: Foyer - lower level All posters will be displayed in all three poster sessions (Monday evening and two lunch poster sessions). Poster setup is on Monday afternoon and all posters are available until Wednesday afternoon.</p>	<p><u>Lunch</u> Location: University Mensa</p>
<p>2:00pm - 4:30pm</p>	<p><u>qPCR Data Analysis</u> Location: Lecture hall 14 Chair: Stefan Rödiger, BTU Cottbus - Senftenberg, Germany Chair: Andrej-Nikolai Spiess, University Hospital Hamburg-Eppendorf, Germany</p> <p>Methods and Technologies for Analysis of Digital PCR Experiments - Lessons We Learned from the qPCR Technology Stefan Rödiger¹, Andrej-Nikolai Spiess², Michał Burdukiewicz³ 1: Brandenburg University of Technology Cottbus–Senftenberg, Germany; 2: University Medical Center Hamburg-Eppendorf, Hamburg, Germany; 3: University of Wrocław, Wrocław, Poland</p>	<p><u>MicroGenomics & Single-Cell-qPCR</u> Location: Lecture hall 15 Chair: Mikael Kubista, TATAA Biocenter AB, Sweden Chair: Anders Ståhlberg, University of Gothenburg, Sweden</p> <p>Computational Analysis of Single-Cell RNA-Seq Profiles Identifies Lineage Choice and Graded Transitions in Myeloid Progenitors Fabian J. Theis Helmholtz Zentrum München/ TUM, Germany</p>

Development of an HRM-Based Tool for the Automated Identification of Nucleotide Sequences in Large Datasets

Jean-Christophe Avarre¹, Matthieu Vignoles², Mathieu Laffont², Lise Grewis², Christelle Reynes^{3,4}

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A New Paradigm in Genetic Data Analysis on the Thermo Fisher Cloud

Nivedita Majumdar, Puneet Suri, Gloria Lam, David Woo, Shakila Pothini

ThermoFisher Scientific, United States of America

COMplementary Primer ASymmetric PCR (COMPAS™ -PCR), A Counter Intuitive Primer Design For PCR

Marc Anglès d'Auriac

Norwegian Institute for Water Research, Norway

Comparative Procedures for Sample Processing and Development of qPCR Assays for the Rapid Detection of Grapevine and Citrus Pathogens

Emir Hodzic

School of Veterinary Medicine, University of California at Davis, United States of America

High Resolution Single Cell Analysis In Complex Adult Tissues

Stefan Günther, Michail Yekelchyk, Isabelle Salwig, Jens Preussner, Thomas Braun

MPI for Heart and Lung Research, Germany

A Cost Effective 5' Selective Single Cell Transcriptome Profiling Approach

Pascal Barbry^{1,2}, Marie-Jeanne Arguel^{1,2}, Kévin Lebrigand^{1,2}, Agnès Paquet^{1,2}, Sandra Ruiz-Garcia^{1,2}, Laure-Emmanuelle Zaragosi^{1,2}, Rainer Waldmann^{1,2}

1: Université Côte d'Azur; 2: CNRS

Deeper Understanding Starts With a Single Cell

Afif M. Abdel Nour¹, Georges Nemer², Lara Hanna Wakim¹, Esam Azhar³

1: Faculty of Agricultural and Food Sciences, Holy Spirit University of Kaslik, Jounieh, Lebanon; 2: Department of Biochemistry and Molecular Genetics, American University of Beirut-Medical Center, Beirut, Lebanon; 3: Special Infectious Agents Unit-Biosafety Level 3, King Fahd Medical Research Center, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia, Medical Laboratory Technology Department, Faculty of Applied Medical Sciences, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia

Whole transcriptome subcellular profiling of the *Xenopus oocyte*.

Radek Sindelka, Pavel Abaffy, Silvie Tomankova, Ravindra Naraine, Mikael Kubista

Institute of Biotechnology-Biocev, Czech Republic

4:30pm
-
5:00pm

Closing of the Symposium & Farewell

Location: Lecture hall 14

Chair: **Michael W. Pfaffl**, TUM, Germany
Chair: **Sylvia Pfaffl**, bioMCC, Germany

Thursday & Friday, 6th & 7th April 2017

9:00am
-
5:00pm

The workshops are aimed at giving participants a deep and objective understanding of real-time quantitative PCR, Next Generation Sequencing, biostatistics, expression profiling, digital-PCR, and their applications. The courses are intended for academic or industrial persons considering working with PCR and/or NGS or scientists currently working with these technologies seeking a deeper understanding. All workshops offer extensive hands-on training by PCR or NGS experts in the field. The PCR workshops on 6th and 7th April (9 am – 5 pm) are hosted by TATAA Biocenter (www.TATAA.com) or Bio-Rad (www.Bio-Rad.com). The NGS data analysis workshops on 6th and 7th April (9 am – 5 pm) are hosted by TATAA Biocenter (www.TATAA.com) or Genomatix (www.Genomatix.com).

Workshop topics:

- **Basic real-time qPCR Application Workshop** (2-days) hosted by TATAA
Seminar room – S2
- **Analysis of qPCR data - how to get reliable results compliant with guidelines** (2-days) hosted by TATAA
Computer seminar room – PU26
- **digital PCR** (2-days) hosted by Bio-Rad
Seminar room – S1
- **NGS – Library construction and quality control** (2-days) hosted by TATAA
Seminar room – S3
- **NGS data analysis** (2-days) hosted by Genomatix
Computer seminar room – PU26A (GIS room)



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