



qPCR & NGS 2015 **23rd – 27th March 2015**
Symposium & Exhibition & Workshops

*Advanced Molecular Diagnostics
for Biomarker Discovery*

@TUM, Freising-Weihenstephan, Germany



Poster Presentations

qPCR & NGS 2015

**7th international qPCR & NGS Symposium
Industrial Exhibition & Application Workshops**

**“Advanced Molecular Diagnostics
for Biomarker Discovery”**

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

www.qPCR-NGS-2015.net



qPCR & NGS 2015 Event Agenda Overviewonline agenda HTML => <http://agendaHTML.qPCR-NGS-2015.net>online agenda PDF => <http://agendaPDF.qPCR-NGS-2015.net>

	Lecture Hall no. 14 (HS 14)	Lecture Hall no. 15 (HS 15)	Foyer & Seminar Rooms S1 & S2
Sunday 22 nd March			12:00 – 18:00 Industrial Exhibition Built up
			15:00 – 18:00 Arrival & Registration
Monday 23 rd March	10:00 – 10:30 Opening of the Symposium Welcome by Michael W. Pfaffl		8:00 – 10:00 Arrival & Registration & Poster Setup in Foyer lower level
	10:30 – 12:30 Adv. Molecular Diagnostics 1		10:00 – 21:00 Industrial Exhibition in Foyer
	12:30 – 14:00 Lunch		
	14:00 – 18:00 Adv. Molecular Diagnostics 2	14:00 – 18:00 Next Generation Sequencing 1	18:00 – 22:00 Evening Poster Session in Foyer lower level
	18:00 – 22:00 Reception at the Industrial Exhibition		
Tuesday 24 th March	8:30 – 10:30 Digital PCR	8:30 – 10:30 Next Generation Sequencing 2	8:30 – 14:00 Industrial Exhibition in Foyer
	11:00 – 12:30 Non-coding RNA 1	11:00 – 12:30 NGS Data Analysis	12:30 – 14:00 Lunch Poster Session in Foyer lower level
	12:30 – 14:00 Lunch		
	13:00 – 14:00 Life Technologies: Lunch-time seminars	13:00 – 14:00 Agilent Technologies: Lunch-time seminars	14:00 – 18:00 Industrial Exhibition in Foyer
	14:00 – 18:30 Biomarker Discovery & Circulating Nucleic Acids	14:00 – 18:30 MicroGenomics & Single-Cell Diagnostics	
19:30 – 24:00 Symposium Gala Dinner Location: Bräustüberl Weihenstephan, Weihenstephaner Berg 10, 85354 Freising European – Bavarian - Asian Buffet, Music & Dancing & Cocktails			
Wednesday 25 th March	8:30 – 12:50 Optimisation, MIQE & QC in qPCR	8:30 – 12:30 qPCR BioStatistics & Bioinformatics	8:30 – 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 BDQ Editors Meeting	
		13:45 – 14:00 BDQ Poster Awards in HS 15	14:00 – 17:00 Poster Take Down
	14:00 – 16:30 Non-coding RNA 2	14:00 – 16:30 Molecular Diagnostics Agi, Vet, Food & Env	
	16:30 – 17:00 Closing of the Symposium Michael W. Pfaffl		
Thursday 26 th March	Seminar rooms S1 - S3 & Computer seminar rooms PU26, PU34A & PU36 9:00 - 17:00		
Friday 27 th March	qPCR, dPCR & NGS Application Workshops:		
	<ul style="list-style-type: none"> • Basic real-time qPCR Application Workshop (2-days) hosted by TATAA Biocenter • qPCR Data Analysis Workflow: from instrument data to interpretation (2-days) hosted by TATAA • digital PCR (2-days) hosted by Bio-Rad • NGS data analysis workshop (2-days) hosted by Genomatix • “Sample to Insight” Bioinformatic Systems Solutions (2-days) hosted by Qiagen 		

Poster Presentations

All 76 posters will be displayed at all three poster sessions in parallel, starting on Monday evening 6 pm until Wednesday early afternoon 2 pm:

Poster Viewing Session 1: Monday Evening
Time: Monday, 23rd March 2015 6:00pm - 10:00pm
Location: Foyer - lower level

Poster Viewing Session 2: Tuesday Lunch Time
Time: Tuesday, 24th March 2015 12:30pm - 2:00pm
Location: Foyer - lower level

Poster Viewing Session 3: Wednesday Lunch Time
Time: Wednesday, 25th March 2015 12:30pm - 2:00pm
Location: Foyer - lower level

Online poster presentations and poster numbering (PDF) => <http://posters.qPCR-NGS-2015.net>

Poster Sessions and Poster Numbers

Next Generation Sequencing -- Poster 01 – 16	4
Non-coding RNAs -- Poster 17 - 25	5
Biomarker Discovery -- Poster 26 - 41	6
Advanced Molecular Diagnostics -- Poster 42 - 49	7
Molecular Diagnostics in Agriculture, Veterinary Medicine, Food & Environmental Science -- Poster 50 - 69	8
Data Analysis -- Poster 70 - 73	10
Poster "Late Arrivals" -- Poster 74 - 76	10

BDQ Young Scientist Poster Awards

The new open access journal Biomolecular Detection and Quantification (BDQ) is proud to sponsor three "BDQ Young Scientist Poster Awards" at the qPCR & NGS 2015 event.

The posters will be evaluated by an international jury on the basis of originality of the approach; quality of the work (e.g. appropriate methodology, interpretation of results, conclusiveness); quality of the presentation (e.g. clarity, response to questions); and self-reliance and independence (not one of co-authors, but the most active, if more than one author).

Eligible for the BDQ Young Scientist Poster Award:

The contest is open to students and early career scientists.

Award Presentation

BDQ Editor-in-Chief Stephen Bustin will award the three poster prizes on Wednesday afternoon directly after the lunch break March 25, 2015.

1. BDQ Young Scientist Poster Award - First Prize
The winner is awarded 700 Euros and a free submission to BDQ
2. BDQ Young Scientist Poster Award – Second Prize
The winner is awarded 200 Euros and a free submission to BDQ
3. BDQ Young Scientist Poster Award – Third Prize
The winner is awarded 100 Euros and a free submission to BDQ

Procedure for Application

Authors will be able to express their interest in participating in the BDQ Young Scientist Poster Award contest when submitting their abstract. Note that authors are only able to participate if their paper has been selected as a poster by the conference organizer. Please register and submit your abstract using the Internet based ConfTool registration and submission platform => Registration.qPCR-NGS-2015.net

Poster Session -- Next Generation Sequencing -- Poster 01 – 16

Poster 01

Potential of Next Generation Sequencing Technology in Molecular Diagnostics – High-Throughput Analysis of the Human Mitochondrial Genome**Agnieszka Piotrowska¹, Ewa Kosior-Jarecka², Tomasz Żarnowski², Rafał Płoski³, Katarzyna Tońska¹, Ewa Bartnik^{1,4}**¹Institute of Genetics and Biotechnology, Faculty of Biology, University of Warsaw, Poland; ²Department of Diagnostics and Microsurgery of Glaucoma, Medical University of Lublin, Poland; ³Department of Medical Genetics, Medical University of Warsaw, Poland; ⁴Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Poland; apiotrowska@biol.uw.edu.pl

Poster 02

RNA-sequencing as a diagnostic method for infectious diseases**Maria Lind Karlberg, Per Sikora, Erik Alm, Mattias Mild**Public Health Agency of Sweden, Sweden; maria.lind.karlberg@folkhalsomyndigheten.se

Poster 03

An Improved cDNA Library Generation Protocol for Transcriptome Analysis from a Single Cell**François-Xavier Sicot¹, Rachel Fish², Sally Zhang², Magnolia Bostick², Cynthia Chang², Suvarna Gandlur², Andrew Farmer²**¹Takara Bio Europe, France; ²Clontech Laboratories, Inc., Mountain View, CA 94043, USA; francois-xavier.sicot@takara-clontech.eu

Poster 04

Detection of Blood Storage on the Basis of miRNA Expression Pattern as a First Step to Detect Autologous Blood Doping**Anna Henke¹, Michael W. Pfaffl¹, Reinhard Henschler², Christian Wichmann², Irmgard Riedmaier¹**¹Technical University Munich, Physiology Weihenstephan, Freising, Germany; ²Ludwig-Maximilian University Hospital, Department of Transfusion Medicine, Cell Therapeutics and Hemostaseology, Munich, Germany; Anna.Henke@wzw.tum.de

Poster 05

Streamlining NGS workflows by the application of the DNA Integrity Number (DIN) from the Genomic DNA ScreenTape Assay**Eva Schmidt¹, Barry McHouli², Isabell Pechtl¹, Marcus Gassmann¹**¹Agilent Technologies, Germany; ²Agilent Technologies, UK; eva_schmidt@agilent.com

Poster 06

DNA Methylation Patterns in Pseudorabies Virus Identified by Short-Read and Single-Molecule Sequencing Methods.**Péter Oláh¹, Dóra Tombác¹, Zsolt Csabai¹, Michael Snyder², Zsolt Boldogkői¹**¹Dept. of Medical Biology, University of Szeged, Hungary; ²Dept. of Genetics, Stanford University, USA; olah.peter@med.u-szeged.hu

Poster 07

The Mix² Model Leads To Significantly Improved Accuracy In Transcript Concentration Estimates And Detection Of Differential Expression In RNA-Seq Data**Andreas Tuerk, Gregor Wiktorin, Serhat Güler**Lexogen GmbH, Austria; gregor.wiktorin@lexogen.com

Poster 08

Insights by Next-Generation Small RNA Sequencing: Comparison of miRNAs and piRNAs in Bovine Blood and Plasma**Melanie Spornraft, Benedikt Kirchner, Michael W. Pfaffl, Irmgard Riedmaier**Chair of Physiology, Technical University Munich TUM, Freising-Weihenstephan, Germany; melanie.spornraft@wzw.tum.de

Poster 09

Culture Independent Next Generation Sequencing Based Diagnosis of Blood Stream Infection.**Solomon Bupe Mwaigwisya¹, Tim Leary², Szymon Tomasz Callus³, Nick Loman³, Justin O'Grady¹**¹Norwich Medical School, University of East Anglia, Norwich, Norfolk, UK; ²Critical Care Complex, Norfolk and Norwich University Hospital, Norwich, UK; ³Institute for Microbiology and Infection, School of Biosciences, University of Birmingham, Birmingham, UK; s.mwaigwisya@uea.ac.uk

Poster 10

Evaluation of QuantSeq 3' mRNA Sequencing with Spike-in Transcripts**Pamela Moll, Musashi Tsujita, Michael Ante, Lukas Paul, Irmlind Gabler, Alexander Seitz, Torsten Reda**Lexogen GmbH, Austria; lukas.paul@lexogen.com

Poster 11

Next Generation Sequencing And Genetic Variant Analysis In Otosclerosis**Simon Koren¹, Nataša Toplak¹, Katarina Trebušak Podkrajšek², Gašper Klančar², Saba Battelino³, Minka Kovač¹**¹Omega d.o.o., Ljubljana, Slovenia; ²Centre for Medical Genetics, University Children's Hospital, University Medical Centre Ljubljana, Slovenia; ³Department of Otorhinolaryngology and Cervicofacial Surgery, University Medical Centre Ljubljana, Slovenia; simon.koren@omega.si

Poster 12

Non-invasive Prenatal Testing (NIPT): Quantitation Of NGS Reads To Detect Fetal Trisomies**Thomas Harasim, Christian Heberle, Annett Wagner, Imma Rost, Hanns-Georg Klein**Zentrum für Humangenetik und Laboratoriumsdiagnostik, Dr. Klein, Dr. Rost und Kollegen, Germany; thomas.harasim@medizinische-genetik.de

Poster 13

Optimization of Library Preparation Protocol for Next Generation Sequencing of Plant RNA Virus**Irena Mavrič Pleško¹, Simon Koren², Mojca Viršček Marn¹, Minka Kovač², Nataša Toplak²**¹Kmetijski inštitut Slovenije, Hacquetova ulica 17, SI-1000 Ljubljana, Slovenia; ²Omega d.o.o., Dolinškova 8, SI-1000 Ljubljana, Slovenia; natasa.toplak@omega.si

Poster 14

Quality control for SureSelect Strand-Specific RNA library preparation protocol using the Agilent 2200 TapeStation system**Hans Brunnert¹, Arunkumar Padmanaban², Alex Siebold³, Eva Schmidt¹**¹Agilent Technologies, Germany; ²Agilent Technologies, India; ³Agilent Technologies, USA; hans_brunnert@agilent.com

Poster 15

RNA Sequencing in degraded tumor RNA samples: Two natural enemies finally reconciled**Alexandra Dangel¹, Claudia Löffler², Stefan Kotschote¹, Aljoscha Kleinhammer¹, Jürgen Löffler², Michael Bonin¹**¹IMG M Laboratories GmbH, Germany; ²Molekularbiologie, Infektiologie und Immunogenetik, Universitätsklinikum Würzburg; alexandra.dangel@imgm.com

Poster 16

A method for assessing bacterial enrichment for the removal of human DNA for metagenomic analysis using qPCR and High throughput qPCR**Jernej Pavšič^{1,2}, Denise M. O'Sullivan³, Sasithon Temisak³, Justin O'Grady⁴, Viktorija Tomič⁵, Nataša Fajfar⁵, Jana Žel¹, Jim F. Huggett³**¹National Institute of Biology, Ljubljana, Slovenia; ²Jožef Stefan International Postgraduate School, Ljubljana, Slovenia; ³LGC, Teddington, UK; ⁴Norwich Medical School, University of East Anglia, Norwich, UK; ⁵University Clinic of Respiratory and Allergic Diseases Golnik, Golnik, Slovenia; jernejpavsic@nib.si**Poster Session -- Non-coding RNAs -- Poster 17 - 25**

Poster 17

A complete workflow for high-throughput isolation of serum microRNAs and downstream analysis using qPCR: application to cancer biomarker discovery**Linda Wong¹, Sara E. Brown¹, Alex J. Rai², Guarionex J. Decastro³, Luming Qu⁴, Marie Gonzalez⁴, Laura Chapman⁴, Alexander V. Vlassov⁴, Susan Magdaleno⁴, Emily Zerlinger⁴**¹Thermo Fisher Scientific, South San Francisco, CA, USA; ²Columbia University, Department of Pathology and Cell Biology, New York, NY, USA; ³Columbia University, Department of Urology, New York, NY, USA; ⁴Thermo Fisher Scientific, Austin, TX, USA; sara.brown@thermofisher.com

Poster 18

A High Performance qPCR Assay Platform for Circulating MicroRNA Biomarker Development**Lihan Zhou¹, Ruiyang Zou¹, Heng-Phon Too^{2,3}**¹MiRXES Pte Ltd, Singapore; ²Bioprocessing Technology Institute, A*STAR, Singapore; ³National University of Singapore; lihan_zhou@mirxes.com

Poster 19

Serum MicroRNA Biomarker Panels for Non-invasive Detection of Gastric Cancer**Ruiyang Zou¹, Lihan Zhou², Jimmy So^{3,4}, Wei-Peng Yong^{3,4}, Feng Zhu^{3,4}, Khay-Guan Yeoh^{3,4}, Heng-Phon Too^{1,3}**¹Bioprocessing Technology Institute, Singapore; ²MiRXES Pte Ltd; ³National University of Singapore, Singapore; ⁴National University Hospital; zou_ruiyang@bti.a-star.edu.sg

Poster 20

Microparticles Associated MiRNA Release By M2 But Not By M1 Macrophages From Patients With Psychiatric Diseases.**Marion Schneider¹, Markus Hippich², Maximilian Strunz², Robert P. Loewe²**¹Universitätsklinikum Ulm, Germany; ²GeneWake GmbH, Germany; Maximilian.Strunz@genewake.com

Poster 21

Development Of Non-invasive MicroRNAs Tests As Tools For Early Detection Of Colorectal Cancer**Chia-Chun Chen¹, Pi-Yueh Chang², Yu-Sun Chang¹, Jinn-Shiun Chen², Err-Cheng Chan¹**¹Chang Gung University, Taiwan, Republic of China; ²Chang Gung Memorial Hospital, Taiwan, Republic of China; chenchiachun@mail.cgu.edu.tw

Poster 22

microRNA assessment in cerebrospinal fluid for diagnosis of primary central nervous system lymphoma**Maria Barbara Cieślukowska¹, Michalina Zajdel¹, Grzegorz Rymkiewicz², Magdalena Chechlińska¹, Katarzyna Błachnio², Zbigniew Bystydzieński², Krzysztof Goryca³, Agnieszka Druzd-Sitek⁴, Maria Sromek¹, Jan Walewski⁴, Jan Konrad Siwicki¹**¹Department of Immunology, Cancer Centre and Institute of Oncology in Warsaw, Poland; ²Department of Pathology and Laboratory Diagnostics, Cancer Centre and Institute of Oncology in Warsaw, Poland; ³Department of Genetics, Cancer Centre and Institute of Oncology in Warsaw, Poland; ⁴Department of Lymphoid Malignancies, Cancer Centre and Institute of Oncology in Warsaw, Poland; mcieslikowska@coi.waw.pl

Poster 23

How to be one-step ahead by streamlining an existing microRNA cDNA synthesis kit**Markus Hippich, Robert P. Loewe**Genewake GmbH, Germany; markus.hippich@genewake.com

Poster 24

Long Non-Coding RNAs Implicated in the Pathogenesis of Parkinson Disorder**Eszter Szlavicz¹, Nikoletta Nagy^{1,2}, Nóra Török³, Péter Klivényi³, Márta Széll^{1,2}**¹University of Szeged, Faculty of Medicine, Department of Dermatology and Allergology, Szeged, Hungary; ²University of Szeged, Faculty of Medicine, Medical Genetics Institute, Szeged, Hungary; ³University of Szeged, Faculty of Medicine, Department of Neurology, Szeged, Hungary; szlavicz.eszter@gmail.com

Poster 25

Exosomal microRNAs in urine - promising biomarkers for disease**Dirte Andreassen¹, Anni R. Thomsen¹, Jacob Fredsøe³, Thorarinn Blondal¹, Jörg Krummheuer¹, Maria W. Theilum¹, Niels Tolstrup¹, Michael Borre², Christa Haldrup³, Torben F. Ørntoft³, Karina D. Sørensen³, Peter Mouritzen¹**¹Exiqon, Denmark; ²Dept of Urology, Aarhus University Hospital, Denmark; ³Dept. of Molecular Medicine, Aarhus University Hospital, Denmark; dia@exiqon.com**Poster Session -- Biomarker Discovery -- Poster 26 - 41**

Poster 26

Applicability of Blood RNA Quality Biomarkers for EDTA Tubes in High-Throughput qPCR Gene Expression Experiments Using BioMark System from Fluidigm**Vlasta Korenková¹, Lucie Langerová¹, Jana Slyšková², David Švec¹, Pavel Vodička², Mikael Kubista^{1,3}, Hui Zhang⁴**¹Department of Gene Expression, Institute of Biotechnology AS CR, Prague, Czech Republic; ²Department of the Molecular Biology of Cancer, Institute of Experimental Medicine AS CR, Prague, Czech Republic; ³TATAA Biocenter, Göteborg, Sweden; ⁴DiaGenic ASA, Oslo, Norway; vlasta.korenkova@ibt.cas.cz

Poster 27

A Reliable Method to Quantify Transcript Isoform Expression of Apoptotic Genes Involved in the Response to Tyrosine Kinase Inhibitor (TKI) Therapy in Chronic Myeloid Leukemia (CML)**Justine Marum¹, Bradley Chereda¹, Wendy Parker¹, Leanne Purins¹, Doris Stangl¹, David Yeung^{1,2}, Timothy Hughes², Susan Branford¹**¹Genetics and Molecular Pathology, SA Pathology, Adelaide, South Australia, Australia; ²Department of Haematology, SA Pathology (RAH Campus), Adelaide, South Australia, Australia; justine.marum@health.sa.gov.au

Poster 28

Biomarkers for Metastatic Colorectal Cancer**Christopher J. Hayes^{1,2}, Patrick A. Kiely^{1,2,3}, Tara M. Dalton¹**¹Stokes Institute, University of Limerick, Ireland.; ²Department of Life Sciences, University of Limerick, Ireland.; ³Materials and Surface Science Institute, University of Limerick, Ireland.; christopher.hayes@ul.ie

Poster 29

Characterization of Antigenic Profiles of Primary Non-small Cell Lung Cancer Tumors and Lung Cancer Cell Lines for Vaccine Development**Ondřej Palata¹, Nad'a Hradilová^{1,2}, Lenka Sadílková¹, Dagmar Myšíková³, Robert Lischke³, Irena Vančurová¹, Luděk Sojka^{1,2}, Irena Adkins^{1,2}**¹Sotio a.s., Prague, Czech Republic; ²Department of Immunology, 2nd Faculty of Medicine, Charles University and University Hospital Motol, Prague, Czech Republic; ³Thoracic and Lung Transplantation Division, 3rd Department of Surgery, 1st Faculty of Medicine, Charles University in Prague and University Hospital Motol; palata@sotio.com

Poster 30

Development of an in-house method to quantify BCR-ABL1 p210 transcripts aligned to the International Scale standards with high sensibility**Marcos Tadeu dos Santos, Ana Maria Fraga, Melina Gonçalves dos Santos Barth, Danyella Silva Pereira, Miguel Mitne-Neto, Vanessa Dionísio Cantagalli, Maria Carolina Tostes Pintão, Maria de Lourdes Lopes Ferrari Chauffaille**Grupo Fleury, Brazil; marcos.santos@grupofleury.com.br

Poster 31

Diabetes Causal Molecular and Cellular Mechanisms underlying the COBLL1 locus**Viktoria Magdalena Glunk**TU München, Germany; viktoria.glunk@tum.de

Poster 32

Evaluation of Bias Associated with High Multiplex Target-Specific Pre-amplification**Haya Sarras², Steven T. Okino¹, Michelle Kong¹, Yan Wang¹**¹Gene Expression Division, Life Science Group, Bio-Rad Laboratories, Hercules, CA, USA.; ²Gene Expression Division, Life Science Group, Bio-Rad Laboratories, Mississauga, ON, Canada.; haya_sarras@biorad.com

Poster 33

Gene Expression Profiling of Circulating Tumor Cells and Peripheral Blood Mononuclear Cells of Breast Cancer Patients**Michal Hensler¹, Irena Vančurová^{1,6}, Ondřej Palata¹, Pavel Strnad², Petra Tesařová³, Etienne Becht⁴, David Švec⁵, Mikael Kubista⁵, Radek Špišák^{1,5}, Luděk Sojka^{1,6}**

¹SOTIO a.s., Czech Republic; ²Department of Gynecology and Obstetrics, 2nd Faculty of Medicine, Charles University and University Hospital Motol, Prague, Czech Republic; ³Oncology Clinic, 1st Faculty of Medicine, Charles University, Prague, Czech Republic; ⁴Laboratory of Cancer, Immune Control and Escape, UMRS 1138 INSERM, Cordeliers Research Center, Paris, France; ⁵TATAA Biocenter, Göteborg, Sweden; ⁶Department of Immunology, Charles University, Second Faculty of Medicine and University Hospital Motol, Prague, Czech Republic; hensler@sotio.com

Poster 34

Systems Biology Using Single Cells

Dave Ruff

Fluidigm, United States of America; dave.ruff@fluidigm.com

Poster 35

A Micro-fabricated Single Cell Isolation System To Process 1000s Of Individual Cells For Genomics Applications

Shanavaz Nasarabadi¹, Ishminder Mann¹, Harris Shapiro¹, Phil Lin¹, Ricelle Acob¹, Michael Slater¹, Syed Husain¹, Alain Mir¹, Thomas Schaal¹, Magali Soumillion², Tarjei Mikkelsen², Maithreya Srinivasan¹

¹WaferGen Biosystems, 7400 Paseo Padre Parkway, Fremont, CA (USA); ²Broad Technology Labs, Broad Institute, Cambridge, MA (USA); Shanavaz.Nasarabadi@wafergen.com

Poster 36

Upstream Open Reading Frames Regulate Cannabinoid Receptor 1 Expression Under Baseline Conditions And During Cellular Stress

Marlene Eggert¹, Martina Pfob¹, Gustav Schelling², Ortrud Steinlein¹

¹Institute of Human Genetics, University Hospital, Ludwig-Maximilians-University Munich, Germany; ²Department of Anesthesiology, University Hospital, Ludwig-Maximilians-University, Munich, Germany; Marlene.Eggert@med.uni-muenchen.de

Poster 37

Virus Serotyping by TaqMan and SYTO 9 in Single Reaction

Martina Matonohova¹, Karel Bilek¹, Hana Andelova¹, Daniel Ruzek^{2,3,4}, Martin Palus^{2,3}

¹National Institute for NBC Protection, Czech Republic; ²Laboratory of Arbovirology, Institute of Parasitology, Biology Centre, Academy of Sciences of the Czech Republic; ³Faculty of Sciences, University of South Bohemia, Czech Republic; ⁴Veterinary Research Institute, Czech Republic; matonohova@ujchbo.cz

Poster 38

ZFP64 – a predictive RNA biomarker for cancer treatment with the HDAC-inhibitor Resminostat

Cornelia Hock¹, Stefan Kotschote¹, Thomas Herz²

¹IMGM Laboratories GmbH, Germany; ²SC AG, Germany; stefan.kotschote@imgm.com

Poster 39

Sensitive, specific and highly-multiplexed qPCR using MNazymes and PASS primers

Lit Yeen Tan, Elisa Mokany, Samantha M Walker, Tina Lonergan, Simon M Erskine, Alison V Todd

SpeedX Pty Ltd, Australia; alison@speedx.com.au

Poster 41

Rapid High Sensitivity Monitoring of Tumor Genetic Changes for Targeted Therapy of Cancer

Michael Joseph Powell, Aiguo Zhang, Madhuri Ganta, Elena Peletskaya

DiaCarta, Inc., United States of America; mpowell@apollolongevity.com

[Poster Session -- Advanced Molecular Diagnostics -- Poster 42 - 49](#)

Poster 42

Detection of DNA mutations with an electro-switchable PNA chip

Zsuzsanna Mayer¹, Wolfgang Kaiser², Kristin Wörner², Ralf Strasser², Ulrich Rant², Jörg Kleiber¹

¹Weihenstephan-Triesdorf University of Applied Sciences, Department of Biotechnology and Bioinformatics, Freising; ²Dynamic Biosensors GmbH, Planegg, Germany; zsuzsanna.mayer@hswt.de

Poster 43

Smartphone sized real-time PCR device

Christian Ahrberg, Pavel Neuzil, Andreas Manz

KIST Europe, Germany; c.ahrberg@kist-europe.de

Poster 44

Open qPCR: The Design of an Open Source, \$2000 Real-Time PCR Instrument

Josh Perfetto

Chai, United States of America; josh@chaibio.com

Poster 45

TaqMan® Rare Mutation Assays for QuantStudio® 3D Digital PCR System

Marion Laig, Brian Ho, Nivedita Majumdar, Le Lac, Frances Chan, Ramesh Sathiyaa, Iain Russel, Paco Cifuentes, Ted Straub, Kamini Varma, David Keys

Thermo Fisher Scientific, United States of America; marion.laig@thermofisher.com

Poster 46

Methods of Comparing Digital PCR Experiments**Michał Jan Burdukiewicz¹, Piotr Sobczyk², Paweł Mackiewicz¹, Stefan Rödiger³**¹University of Wrocław, Poland; ²Wrocław University of Technology, Wrocław, Poland; ³BTU Cottbus - Senftenberg, Senftenberg, Germany; michalburdukiewicz@gmail.com

Poster 47

High Resolution Melting Typing Approach For CTX-M β -Lactamases Differentiation**Maksim Bratchikov, Silvija Kiverytė**Department of Physiology, Biochemistry, Microbiology and Laboratory medicine, Faculty of Medicine, Vilnius university, Lithuania; maksim@pcr.lt

Poster 48

Engineered DNA Polymerases Tailor-Made For Your Needs**Ramon Kranaster**myPOLS Biotec UG (haftungsbeschränkt), Universitätsstr. 10, 78457 Konstanz, Germany, T +49(0)7531 884654, www.mypols.com; ramon.kranaster@mypols.de

Poster 49

Biodistribution of Advanced Therapy Medicinal Products (ATMPs): Workflow of a typical study at a professional pre-clinical service provider**Amelie Schreieck, Cornelia Hock, Aljoscha Kleinhammer**IMG M Laboratories GmbH, Germany; amelie.schreieck@imgm.com**Poster Session -- Molecular Diagnostics in Agriculture, Veterinary Medicine, Food & Environmental Science -- Poster 50 - 69**

Poster 50

Concentration of Pathogenic Viruses from Seawater Samples using Monolithic Chromatographic Supports and Downstream Detection using Quantitative PCR**Mukundh Narayanan Balasubramanian^{1,2}, Jose Goncalves³, Nejc Rački², Katarina Kovač¹, Matjaz Hren¹, Valentina Turk³, Maja Ravnikar², Ion Gutiérrez-Aguirre²**¹BioSistemika Ltd., Pot za Brdom 102, SI-1000 Ljubljana, Slovenia; ²Department of Biotechnology and Systems Biology, National Institute of Biology, Vecna pot 111, SI-1000 Ljubljana, Slovenia; ³Marine Biology Station, National Institute of Biology, SI-6330 Piran, Slovenia; bmukundh@gmail.com

Poster 51

Evaluation And Quantification Of The Lactogenesis Of Primary Bovine Epithelial Cells *In Vitro* - 3D Cell Culture Model Of The Bovine Mammary Gland.**Maria Hillreiner, Christiane Schmutz, Milica Maier, Michael W. Pfaffl, Heike Kliem**Physiology Weihenstephan, Technische Universität München, Weihenstephaner Berg 3, D-85354 Freising; Maria.Hillreiner@wzw.tum.de

Poster 52

The Fungal Nutritional ENCODE Project: Exploring Fungal Carbon Perception in the Model Filamentous Fungus *Neurospora crassa* by a Large Scale RNA-Seq Approach**Nils Thieme¹, Vincent Wu², N. Louise Glass², J. Philipp Benz¹**¹Technische Universität München, Munich, Bavaria Germany; ²University of California, Berkeley, California USA; thieme@hfm.tum.de

Poster 53

What's The Difference Between A White And A Red Strawberry? A Comparative Approach To Gain Insight Into Expression Of Anthocyanin Biosynthesis Pathway Genes**Katja Schulenburg, Katrin Franz-Oberdorf, Wilfried Schwab**TUM, Weihenstephan, Germany; katja.schulenburg@tum.de

Poster 54

High-throughput Gene Expression Analysis In Pigs As Model For Respiratory Infections**Kerstin Skovgaard¹, Louise Brogaard², Kirstine Klitgaard Schou³, Ralf Dürrwald⁴, Michael Schengel⁵, Peter M. H. Heegaard⁶**¹Technical University of Denmark, Denmark; ²Technical University of Denmark, Denmark; ³Technical University of Denmark, Denmark; ⁴IDT, Germany; ⁵IDT, Germany; ⁶Technical University of Denmark, Denmark; kesk@vet.dtu.dk

Poster 55

Pooling of fecal and environmental samples for the detection of *Salmonella* spp. by qPCR**Emir Hodzic**University of California, Davis, United States of America; ehodzic@ucdavis.edu

Poster 56

Strategies To Monitor Extraintestinal Pathogenic *E.coli* ExPEC**Bernhard Setzer**BS-Diagnostik, Germany; info@bs-diagnostik.de

Poster 57

Small RNA sequencing in milk of cycling and pregnant cows**Corina I. Schanzenbach¹, Susanne E. Ulbrich², Benedikt Kirchner¹, Michael W. Pfaffl¹**¹Lehrstuhl für Physiologie, TU München, Germany; ²ETH Zürich, Animal Physiology, Institute of Agricultural Sciences, Switzerland; corina.schanzenbach@wzw.tum.de

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In-house Validation of DNA Extraction Method from Flour Samples and Rye, Maize and Oat Flour contents in Wheat Flour Based Composite Breads**Remziye Yılmaz^{1,2}, Hamit Köksel², Ceren Bayraç³, Arzu Başman², İskın Engin¹**¹Middle East Technical University, Central Laboratory, Molecular Biology and Biotechnology R&D Center, Genome Analysis Laboratory, 06800 Ankara, Turkey; ²Hacettepe University, Food Engineering Department, 06800, Beytepe, Ankara, Turkey; ³Karamanoğlu Mehmetbey University, Department of Bioengineering, 70100, Karaman, Turkey; iskinkose@gmail.com

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Development of a Molecular Method for the Detection of Hepatitis E Virus (HEV) in Pancreatin.**Simone Peletto¹, Paola Modesto¹, Maria Grazia Maniaci¹, Umberto Cavallazzi², Pier Luigi Acutis¹**¹Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta, Italy; ²Terhormon S.R.L., Italy; simone.peletto@izsto.it

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Effects of prostaglandin F2alpha on some local luteotropic and angiogenic factors in corpus luteum during induced luteolysis in cow**Bajram Berisha^{1,2}, Dieter Schams², Michael W. Pfaffl²**¹University of Prishtina, Kosovo; ²Technical University of Munich, Germany; berisha@wzw.tum.de

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Digital PCR For Quantification Of *Listeria monocytogenes***Miha Kovac^{1,2}, Simon Koren¹, Minka Kovac¹, Barbara Jeršek³, Nataša Toplak¹**¹Omega d.o.o., Dolinškova 8, SI-1000 Ljubljana, Slovenia; ²University of Ljubljana, Veterinary Faculty, Gerbičeva 60, SI-1000 Ljubljana, Slovenia; ³University of Ljubljana, Biotechnical faculty, Department of Food Technology, Jamnikarjeva 101, 1000 Ljubljana, Slovenia; devadekrmak@gmail.com

Poster 62

Postprandial recovery of colostral exosomes and RNA in calf plasma**Dominik Buschmann¹, Benedikt Kirchner¹, Vijay Paul², Michael W. Pfaffl¹**¹TUM School of Life Sciences Weihenstephan, Technical University Munich, Freising, Germany; ²ICAR-National Research Centre on Yak, Dirang, Arunachal Pradesh, India; dominik.buschmann@wzw.tum.de

Poster 63

Estimation of Measurement Uncertainty in Quantitative Analysis of Roundup Ready® Soybean and Lectin Gene using Plasmid Reference Material**Tugce Ceren Tugrul¹, Remziye Yılmaz², Hüseyin Avni Öktem^{1,3}, Meral Yücel^{1,2,3}**¹Middle East Technical University, Biotechnology Department; ²Middle East Technical University, Central Laboratory, Molecular Biology and Biotechnology R&D Center; ³Middle East Technical University, Biology Department; e165007@metu.edu.tr

Poster 64

Incidence And Detection Of Beak And Feather Disease In Psittacine Birds In The UAE**Fatima Hakimuddin¹, Fatima Abidi¹, Osman Jafer¹, Ulrich Wernery², Kamal Khazanehdari¹**¹Molecular Biology and Genetics Laboratory, United Arab Emirates; ²Central Veterinary Research Laboratory, United Arab Emirates; fhakim@mbg.ae

Poster 65

Influence Of Milk Proccession On miRNA Stability And Its Relevance In The Immune System**Benedikt Kirchner¹, Markus Ege², Michael Pfaffl¹**¹Animal Science, Physiology, Technical University Munich, Freising, Germany; ²Dr von Hauner Children's Hospital, Ludwig Maximilian University, Munich, Germany; benedikt.kirchner@wzw.tum.de

Poster 66

New analytical approaches in GMO analysis for the detection of 'stacked events'**Patrick Guertler, Ottmar Goerlich, Ulrich Busch**Bavarian Health and Food Safety Authority; patrick.guertler@lgl.bayern.de

Poster 67

Real-time PCR Based Concept for Monitoring of Genetically Modified Oilseed Rape (*Brassica napus L.*) along Transport Routes**Melanie Stoeckert, Melanie Pavlovic, Patrick Guertler, Ulrich Busch, Ottmar Goerlich**Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit, Germany; patrick.guertler@lgl.bayern.de

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Molecular identification and Physiological characterization by Flow Cytometry of bacteria and yeasts producing polygalacturonase (PG) isolated from fermented cassava microbiota**Sonagnon H.S. Kouhounde^{1,2,3}, Alfred S. Traore², Fatiou Toukourou³, Annick Lejeune¹, Huu Thanh Nguyen¹, Philippe Thonart¹, Frank Delvigne¹**¹Université de Liège, Belgium; ²Université de Ouagadougou, Burkina-Faso; ³Université d'Abomey-Calavi, Bénin; kouhoundes@hotmail.fr

Poster 69

Sequence Differences In Corynebacterium Pseudotuberculosis Isolated From Caprine And Camel Species**Fatima Hakimuddin¹, Motasem Ismail¹, Fatima Abidi¹, Ulrich Wernery², Kamal Khazanehdari¹**¹Molecular Biology and Genetics Laboratory, United Arab Emirates; ²Central Veterinary Research Laboratory, United Arab Emirates; fhakim@mbg.ae**Poster Session -- Data Analysis -- Poster 70 - 73**

Poster 70

The dpcR Package – a Framework for Analysis and Visualization of Digital PCR Experiments**Michał Burdukiewicz¹, Jim Huggett², Simon Cowen², Bart K.M. Jacobs³, Lieven Clement³, Peter Schierack⁴, Stefan Rödiger⁴**¹University of Wrocław, Wrocław, Poland; ²Molecular and Cell Biology Team, LGC, Teddington, United Kingdom; ³Department of Applied Mathematics, Computer Science and Statistics, Ghent University, Belgium; ⁴BTU Cottbus - Senftenberg, Germany; Stefan.Roediger@b-tu.de

Poster 71

The reliability of two different calibration of 2^{-DDCt} method for analysing relative gene expression in real time pcr**Devy Firena Garna^{1,2}, Mandeep Ghuman¹, Francis Hughes¹**¹King's College London, United Kingdom; ²Padjadjaran University, Indonesia; devy.garna@kcl.ac.uk

Poster 72

RKward: a Software Framework for Analysis of qPCR, dPCR, qIA and Melting Curve Data**Stefan Rödiger¹, Michał Burdukiewicz², Andrej-Nikolai Spiess³, Konstantin Blagodatskikh⁴, Peter Schierack¹**¹BTU Cottbus - Senftenberg, Senftenberg, Germany; ²University of Wrocław, Wrocław, Poland; ³University Medical Center Hamburg-Eppendorf, Hamburg, Germany; ⁴All-Russia Research Institute of Agricultural Biotechnology, Moscow, Russia; Stefan.Roediger@b-tu.de

Poster 73

Advantages in Real-time PCR Quantification Using SOD and Cy0 Methods**Michele Guescini, Davide Sisti, Marco B.L. Rocchi, Vilberto Stocchi**University of Urbino, Italy; michele.guescini@uniurb.it**Poster Session -- "Late Arrivals" -- Poster 74 - 76**

Poster 74

Automated Normalization and Pooling of DNA with the Labcyte Echo® Liquid Handler to enable Next Generation Sequencing**John Lesnick¹, Carl Jarman¹, Carl Peters²**¹Labcyte Inc., Sunnyvale, CA, USA ²BMG LABTECH, Cary, NC, USA Carl.Jarman@labcyte.com

Poster 75

High Throughput Miniaturized Quantitative PCR using the Echo® 525 Liquid Handler**Carl Jarman, Brent Eaton, Sammy Datwani**Labcyte Inc., Sunnyvale, CA, USA Carl.Jarman@labcyte.com

Poster 76

An RT-qPCR Automated Platform: Validation Methods for the Access™ Workstation, the Echo® Liquid Handler, and RealTime Ready™ Reagents**Carl Jarman, Randy Dyer, Sammy Datwani**Labcyte Inc., Sunnyvale, CA, USA Carl.Jarman@labcyte.com

Poster 77

Applications of Next Generation Sequencing in Plant Breeding.**Regina Dick, Axel Strittmatter, Georg Gradl**Eurofins Genomics, Anzinger Str. 7a, 85560 Ebersberg, Germany georggradl@eurofins.com

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