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University
of Munich



9th Gene Quantification Event qPCR dPCR & NGS 2019

**Next Generation Biomarkers
Liquid Biopsy, Multi-Omics, MicroGenomics**

Symposium & Exhibition & Workshops

18-22 March 2019 @ TUM School of Life Sciences, Freising-Weihenstephan, Germany

#GQ2019 Poster Sessions

qPCR dPCR & NGS 2019

9th international Gene Quantification Event

Scientific Symposium

Industrial Exhibition & Application Workshops

***“Next Generation Biomarkers --
Liquid Biopsy, Multi-Omics, MicroGenomics”***

Scientific coordination: Michael W. Pfaffl
Animal Physiology & Immunology, Freising – Weihenstephan
TUM School of Life Sciences
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GQ2019 – Poster Sessions & Poster Numbers

Monday Main Poster Session

Monday, 18/Mar/2019 6:00 - 10:00 pm

Location: **Lower Level**

ZHG Lower Level -- Main Lecture Hall Building

Tuesday Lunch Poster Session

Tuesday, 19/Mar/2019 12:00 - 2:00 pm

Wednesday Lunch Poster Session

Wednesday, 20/Mar/2019 12:00 - 2:00 pm

Poster setup is Monday mornig.

All 84 posters will be displayed in parallel at all three poster sessions.

All posters can be viewed/studied from Monday evening until Wednesday afternoon.

Posters should be taken down during the afternoon on Wednesday

Online Agenda HTML => <http://agenda.qPCR-dPCR-NGS-2019.net>

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Poster Sessions:

- **P001 – P004 Poster Session – digital PCR**
- **P005 – P010 Poster Session – Single Cell Diagnostics**
- **P011 – P018 Poster Session – Next Generation Sequencing**
- **P019 – P029 Poster Session – Liquid Biopsy**
- **P030 – P038 Poster Session – Extracellular Vesicles**
- **P039 – P069 Poster Session – Gene Quantification Methods**
- **P070 – P084 Poster Session – Advanced Molecular Diagnostics in Life Science**

Poster Session – digital PCR

P001 – P004

P001

Digital PCR To Quantify Evolution Of *Mycobacterium Tuberculosis* SNP Proportion During *In Vitro* Competitive Assay

Charlotte Genestet¹, Cécile Jacot-des-Combes², Elisabeth Hodille^{1,3}, Fabiola Bastian², Oana Dumitrescu^{1,3}

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P002

Development of a Strain-specific Droplet Digital PCR (ddPCR) for Detection and Quantification of a Probiotic Strain *Bifidobacterium animalis* (BAN) in Feed.

Sergi Raurich, Michaela Mohnl, Viviana Klose, Gerd Schatzmayr, Silvia Fibi-Smetana

BIOMIN Research Center, Technopark 1A, 3430 Tulln, Austria; sergi.raurich@biomin.net

P003**Design of a Digital PCR Assay for the Simultaneous Quantification of 14 Genetically Modified Soybean Lines in a Single Reaction**

Katharina Lührig, Maximilian Neugebauer, Florian Priller, Heike Ziebarth, Hans-Henno Dörries, Cordt Grönewald, Kornelia Berghof-Jäger

BIOTECON Diagnostics GmbH, Germany; kluehrig@bc-diagnostics.com

P004**A Rapid, Simple, High-throughput Compatible Approach to Generating CRISPR/Cas9 Knock-out Cell Lines**

Meiye Wu, Steven Okino, Gerald Ui

Reagent R&D, Life Sciences Group, Bio-Rad Laboratories,; mei_wu@bio-rad.com

Poster Session – Single Cell Diagnostics**P005 – P010****P005****The Good, the Bad and the Ugly: Selective single cell isolation**

Sandra Lubos¹, **Nils Körber**¹, **Heide Marie Resch**¹, **Iris Augustin**², **Stefan Niehren**¹

¹MMI - Microscopic Single Cell Isolation, Germany; ²University of Applied Sciences, Weihenstephan-Triesdorf, Germany; resch@molecular-machines.com

P006**A SMARTer Solution To Stranded Single-Cell RNA-Seq**

Matthieu Pesant¹, **Suvarna Gandlur**², **Nathalie Bolduc**², **Simon Lee**², **Christopher Hardy**², **Ankita Das**², **Magnolia Bostick**², **Andrew Farmer**²

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P007**TATAA Alu Repeat qPCR Assays – a Tool for Contamination Control and Quality Assessment in Single Cell and Cell-Free DNA Analysis**

Alexandra Bergman, **Andrei Herdean**, **Robert Sjöback**, **Mikael Kubista**

TATAA Biocenter, Sweden; alexandra.bergman@tataa.com

P008**SureCell® ATAC-Seq Library Prep Kit: A New Solution for Single-Cell ATAC-Seq using Bio-Rad's Droplet Digital Technology**

Ronald Lebofsky, **Carolyn Reifsnnyder**

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P009**Single-cell studies: Focus on reverse transcription**

Daniel Žucha¹, **Peter Androvič**¹, **Mikael Kubista**², **Valihrach Lukáš**¹

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P010**High-throughput, full-length, single-cell RNA sequencing**

François-Xavier Sicot¹, **Kazuo Tori**², **Magnolia Bostick**², **Shally Wang**², **Andrew Farmer**²

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Poster Session – Next Generation Sequencing**P011 – P018****P011****Clinical Application of Next Generation Sequencing Technology Methods**

Elham El Darazi

USEK, Lebanon (Lebanese Republic); ilhamdarazi@hotmail.com

P012

Full-length 16S rRNA Sequencing Combined with the Illumina Barcode Structure Allows a Deeper Insight into Strains Present in Stool Samples**Isabel Abellan-Schneyder**, Ilias Lagkouvardos, Klaus NeuhausCore Facility Microbiome/NGS, ZIEL - Institute for Food and Health, Technische Universität München, Germany; isabel.abellan-schneyder@tum.de

P013

Simple Whole Genome Amplification Technique Developed on the Basis of SD DNA Polymerase**Andreas Kirsten**, Konstantin Ignatov, Ferdinand Holzinger, Vladimir Kramarov, Sergey KovalenkoBioron, Germany; kirsten@bioron.net

P014

Tackling Contaminants In Skin Microbiome Research**Claudia Hülpüsch**¹, Thomas Nussbaumer¹, Vera Schwierzeck¹, **Amedeo De Tomassi**¹, Matthias Reiger¹, Claudia Traidl-Hoffmann^{1,2}, Avidan Neumann¹¹Institute of Environmental Medicine, UNIKA-T, Augsburg, Germany; ²ZIEL - Institute for Food & Health, Freising, Germany; amedeo.detomassi@tum.de

P015

Microsatellite Instability Analysis and NGS with Fragmented Sample Types**Christopher D'Jamoos**, Samantha Lewis, Henk Honing, Brad Hook, Curtis Knox, Katie OostdikPromega Corporation, United States of America; chris.djamoos@promega.com

P016

RiboPOOL: An Affordable Custom/Ribosomal RNA Depletion Solution Against Any Species for RNA Sequencing**Catherine Goh**¹, Andrew Walsh¹, Michaela Beitzinger¹, Jonas Bertram¹, Kristina Doering³, Iana Kim⁴, Stefan Kotschote², Claus Kuhn⁴, Konrad Foerstner³, Michael Bonin¹¹siTOOLS Biotech GmbH; ²IMGM Laboratories GmbH; ³University of Würzburg; ⁴University of Bayreuth; catherine.goh@sitools.de

P017

Sample Quality Control of Long Read Sequencing and Low Input Libraries**Kyle Luttgarm**¹, Bettina Strauch², **Samina Kaufmann**²¹Agilent Technologies, USA; ²Agilent Technologies, Germany; samina.kaufmann@agilent.com

P018

A Guide for Sample Processing to Determine Novel Mitochondrial Genomes by Next-Generation Sequencing**Sarah Viola Emser**¹, Martin Hofer¹, Daniela Allmer¹, Ingeborg Klymiuk², Eva Millesi³, Ralf Steinborn¹¹University of Veterinary Medicine, Vienna, Austria; ²Core Facility Molecular Biology, Center for Medical Research, Medical University Graz, Graz, Austria; ³Department of Behavioural Biology, University of Vienna, Vienna, Austria; sarah.emser@gmail.com**Poster Session – Liquid Biopsy****P019 – P029**

P019

Real-time Genotyping PCR From Blood And Blood Plasma Samples**Moritz Welter**^{1,2}, **Ramon Kranaster**²¹Chair of Organic Chemistry / Cellular Chemistry, University of Konstanz, Universitätsstraße 10, 78457 Konstanz, Germany; ²myPOLS Biotech GmbH, Technologiezentrum Konstanz, Blarerstraße 56, 78462 Konstanz, Germany, www.mypols.de; ramon.kranaster@mypols.de

P020

Considerations and Quality Controls when Analyzing Cell-free DNA**Gustav Johansson**^{1,2,3}, Daniel Andersson¹, Stefan Filges¹, Junrui Li¹, Helena Kristiansson^{2,6}, Tobias Österlund^{2,6}, Andreas Muth⁴, Tony E. Godfrey⁵, Anders Ståhlberg^{1,2,6}¹Sahlgrenska Cancer Center, Department of Pathology and Genetics, Institute of Biomedicine, Sahlgrenska Academy at University of Gothenburg, Medicinaregatan 1F, 413 90 Gothenburg, Sweden; ²Wallenberg Centre for Molecular and Translational Medicine, University of Gothenburg, Gothenburg, Sweden.; ³Respiratory Inflammation and Autoimmunity, IMED Biotech Unit, AstraZeneca, Gothenburg, Sweden.; ⁴Department of Surgery, Institute of Clinical Sciences, Sahlgrenska Academy at the University of Gothenburg, Gothenburg, Sweden; ⁵Department of Surgery, Boston University School of Medicine, 700 Albany Street, Boston, MA 02118, USA; ⁶Department of Clinical Pathology and Genetics, Sahlgrenska University Hospital, 413 45 Gothenburg, Sweden.; gustav.johansson@qu.se

P021

Analysis Of Cell-free Tumor DNA Using SiMSen-Seq**Helena Kristiansson^{1,2}, Daniel Andersson³, Tobias Österlund^{1,2}, Stefan Filges³, Gustav Johansson^{2,3,6}, Junrui Li³, Melita Kaltak³, Åsa Torinsson Naluai^{4,5}, Anders Ståhlberg^{1,2,3}**¹Department of Clinical Pathology and Genetics, Sahlgrenska University Hospital, 413 45 Gothenburg, Sweden.; ²Wallenberg Centre for Molecular and Translational Medicine, University of Gothenburg, Gothenburg, Sweden.; ³Sahlgrenska Cancer Center, Department of Laboratory Medicine, Sahlgrenska Academy at University of Gothenburg.; ⁴Department of Laboratory Medicine, Biobank Core Facility, University of Gothenburg.; ⁵Biobank West, Sahlgrenska University Hospital, Sweden.; ⁶Respiratory Inflammation and Autoimmunity, IMED Biotech Unit, AstraZeneca, Gothenburg, Sweden.; helena.kristiansson@gu.se

P022

Performance Evaluation of Novel Protocols for Small RNA Sequencing In Biofluids**Sarka Benesova^{1,2}, Peter Androvic^{1,3}, Mikael Kubista^{1,4}, Lukas Valihrach¹**¹Laboratory of Gene Expression, Institute of Biotechnology CAS, BIOCEV, Vestec, Czech Republic; ²Faculty of Chemical Technology, University of Chemistry and Technology, Prague, Czech Republic; ³Faculty of Science, Palacký University, Olomouc, Czech Republic; ⁴TATAA Biocenter, Gothenburg, Sweden; benesova@ibt.cas.cz

P023

Taqman Advanced Mirna Cdna Synthesis Kit To Simultaneously Study Expression Of Mirna And Mrna From Serum Samples**Astrid Ferlinz**Thermo Fisher Scientific, United Kingdom; Astrid.Ferlinz@thermofisher.com

P024

New Developments in Nucleic Acid Sample Quality Control**Bettina Strauch¹, Rainer Nitsche¹, Christine Voigt², Martin Judex¹**¹Agilent Technologies, Germany; ²Alacris Theranostics, Germany; martin.judex@agilent.com

P025

Plasma cfRNA Profiling using the NanoString nCounter® Low RNA Input Assay**Alan Huang, Christoph König**NanoString, United States of America; ckonig@nanosttring.com

P026

Detection and Analysis of Free Circulating Long non-coding RNAs and mRNAs in Colorectal Cancer Patients.**Pavel Ostasov, Pavel Pitule**Biomedical Center, Faculty of Medicine in Pilsen, Charles University, Czech Republic; pavel.ostasov@lfp.cuni.cz

P027

Detecting Alzheimer's Disease Risk Factors by qPCR Directly on Blood or Saliva Samples**Andrei Herdean, Mikael Kubista, Robert Sjöback**TATAA Biocenter, Sweden; andrei.herdean@tataa.com

P028

Building High Quality NGS DNA Libraries from Ultra-small Fragments**Stephan Bauer, Robert Brazas, Scott Monsma, Svetlana Jasinovica, Brandon Converse, Michael Lades**LGC, Biosearch Technologies, United States of America; stephan.bauer@lgcgroup.com

P029

Liquid Profiling of Head and Neck Cancer: Circulating cell-free DNA in Plasma and Saliva for minimally invasive Cancer Monitoring**Romina Rösch^{1,2}, Irina Kerle², Markus Wirth^{3,6}, Markus Nieberler⁴, Nicole Pfarr⁵, Carolin Mogler⁵, Silvia Thoene^{1,6}, Ramona Secci^{1,6}, Andreas Bietenbeck¹, Florian Bassermann^{2,6}, Jürgen Ruland^{1,6}, Christof Winter^{1,6}**¹Department of Clinical Chemistry and Pathobiochemistry, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; ²Department of Internal Medicine III - Hematooncology, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; ³Department of Otolaryngology, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; ⁴Department of Oral and Maxillofacial Surgery, Klinikum rechts der Isar, Technische Universität München, Munich, Germany; ⁵Department of General Pathology and Pathological Anatomy, Technische Universität München, Munich, Germany; ⁶German Cancer Consortium (DKTK), partner site Munich; and German Cancer Research Center (DKFZ), Heidelberg, Germany; romina.roesch@tum.de

Poster Session – Extracellular Vesicles

P030 – P038

P030

Anesthesia and Its Impact on miRNA Profiles in Circulating Extracellular Vesicles During Cancer Surgery

Dominik Buschmann¹, **Florian Brandes**^{2,3}, **Anja Lindemann**³, **Melanie Maerte**², **Petra Ganschow**⁴, **Alexander Chouker**², **Gustav Schelling**², **Michael W. Pfaffl**¹, **Marlene Reithmair**³

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P031

Sequence-specific release of EV-associated RNAs

Marie Mosbach, **Christian Preußner**, **Lee-Hsueh Hung**, **Albrecht Bindereif**

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P032

Analysis of Total RNA Yield and Purity Using Different Extracellular Vesicle Isolation Methods

Rebekka Van Hoof^{1,2}, **Karen Hollanders**¹, **Sarah Deville**^{1,3}, **Patrick Wagner**⁴, **Jef Hooyberghs**^{1,2}, **Inge Nelissen**¹

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P033

Urinary Extracellular Vesicles: Unveiling the Most Appropriate Purification Method with a View to RNA Sequencing and Biomarker Profiling

Veronika Mussack¹, **Georg Wittmann**², **Michael W Pfaffl**¹

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P034

Validating Sensitive Workflows To Analyze RNAs in Tumor-derived Extracellular Vesicles in Serum and Urine Samples of NSCLC Patients

Vera Kloten¹, **Rita Lampignano**¹, **Martin Neumann**², **Nina Kessler**³, **Anna Babayan**², **Klaus Pantel**³, **Thomas Krahn**¹, **Thomas Schlange**¹

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P035

Serum-Free Media Supplements Carry miRNAs That Co-Purify With Extracellular Vesicles

Martin Auber, **Dominik Fröhlich**, **Krämer-Albers Eva-Maria**

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P036

Systematic Comparison of Extracellular Vesicles from Human Arterial and Venous Blood: Highly Identical microRNA Expression Indicates Equal Use for Biomarker Applications

Stefanie Hermann¹, **Dominik Buschmann**¹, **Benedikt Kirchner**¹, **Melanie Märte**², **Florian Brandes**², **Stefan Kotschote**³, **Michael Bonin**³, **Marlene Reithmair**⁴, **Gustav Schelling**², **Michael W. Pfaffl**¹

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P037

Grp78 Plays A Crucial Role In The Exosome-Promoted Survival Of Irradiated Squamous Head And Neck Cancer Cells

Michael Schneider, **Lisa Mutschelknaus**, **Klaudia Winkler**, **Rosemarie Kell**, **Michael J. Atkinson**, **Simone Moertl**

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P038

Analysis Of DNA Content From Human Melanoma Cellline Derived Extracellular Vesicles

Daniela Marie Brodesser^{1,2,3}, **Ingrid Walter**⁴, **Waltraud Tschulenk**⁴, **Sabine Brandt**³, **Gottfried Brem**², **Franz Trautinger**⁵, **Joerg P. Burgstaller**^{1,2}

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Poster Session – Gene Quantification Methods

P039 – P069

P039

P3py: A Python Module For The Multi-array MicroRNA Detection Data Analysis And The simulation Of Biomarker Diffusion And Reaction

Bo Zeng, Christiane Geithe, Stefan Rödiger

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P040

Phenovault: An Open-Access Resource For Analysing RNAi And CRISPR Screens

Catherine Goh, Andrew Walsh, Michaela Beitzinger, Stefan Hannus, Michael Hannus

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P041

Optimal Use Of Statistical Methods To Validate Reference Gene Stability In Longitudinal Studies

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P042

A New Method to prepare DNA Libraries for NGS by using SD DNA Polymerase

Andreas Kirsten, Ferdinand Holzinger, Konstantin Ignatov, Vladimir Kramarov, Sergey Kovalenko

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P043

BIOCEV GeneCore – More Than Just Gene Expression Profiling

Lucie Langerová, Filip Franko, Eva Rohlová, David Švec

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P044

MLH1 Promoter Hypermethylation: Development and Validation of a Methylation-Sensitive High-Resolution Melting (MS-HRM) Assay for use in a Lynch Syndrome Pre-Screen Pathway

Diana Pelka^{1,2}, Sasha Hansel¹, Ben Poskitt¹, David Moore^{1,3}, Tomasz K Wojdacz^{4,5}, Phil Bennett¹, Gareth Gerrard^{1,2}

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P045

Detection And Quantification Of MicroRNAs Using A Multiplex Microbead Assay To Accompany Quantitative PCR And Digital PCR Methods

Christiane Geithe¹, Dirk Roggenbuck², Katja Hanack³, Peter Schierack¹, Stefan Rödiger¹

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P046

Developing a Customizable Panel of Real-time qPCR Assays on a Microfluidic Device for Respiratory Tract Pathogen Detection

Emmanuelle Lenotre

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P047

Methods to determine Limit of Detection and Limit of Quantification of a quantitative real-time PCR (qPCR).

Amin Forootan

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P048

A Winter's Week Tale in Sheffield Virology Department

Mehmet Onder Yavuz

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P049

Effects Of The Use Of Degenerate Bases In Primers On Quantitative PCR Measurements**Laure Barbier**, Catherine Rousseau, Charles Chapus, Thomas PoyotIRBA, France; laure.barbier@def.gouv.fr

P050

Evaluation of DNA Fragmentation Methods for Implementation of cgMLST in Routine Analysis**Larissa Murr**, Melanie Pavlovic, Ingrid Huber, Ulrich Busch, **Patrick Guertler**Bavarian Health and Food Safety Authority, Veterinärstr. 2, 85764 Oberschleißheim, Germany; patrick.quertler@lgl.bayern.de

P051

FASTFISH-ID™: ThermoGenix's Rapid DNA Authentication of Any Species of Commercial Fish Using Bio-Molecular Systems' MIC sPCR Cycler.**Jesus Aquiles Sanchez**¹, Amanda M. Naam², Marine Cusa³, Ian Goodhead³, Sarah Helyar², Albert Wijngaard⁴, Christopher Elliot², Stefano Mariani³, Lawrence Wangh¹¹Thermagenix, Inc., Natick, Massachusetts, United States of America; ²Institute for Global Food Security, Queen's University Belfast, Belfast, United Kingdom; ³School of Environment and Life Sciences, University of Salford, Salford, United Kingdom; ⁴Bio Molecular Systems, Upper Coomera, QLD, Australia; sanchez@thermagenix.com

P052

Is The High-Throughput human OpenArray® System Useful For Profiling miRNAs In Melanoma Regression In A Swine Model?**Claudia Bevilacqua**¹, Fany Blanc¹, Marie-Noelle Rossignol¹, Guillaume Piton², Sylvain Marthey¹, Silvia Vincent-Naulleau²¹INRA, France; ²CEA, France; claudia.bevilacqua@inra.fr

P053

New Advances in Two-Tailed RT-qPCR**Eva Rohlova**^{1,2}, Mansi Maheta^{1,2}, Peter Androvic^{1,3}, Lukas Valihrach¹, Mikael Kubista^{1,4}¹Laboratory of Gene Expression, Institute of Biotechnology CAS, BIOCEV, Vestec, Czech Republic; ²Faculty of Science, Charles University, Prague, Czech Republic; ³Faculty of Science, Palacký University, Olomouc, Czech Republic; ⁴TATAA Biocenter, Gothenburg, Sweden; eva.rohlova@ibt.cas.cz

P054

New Versatile Enzymes for High Performance Multiplex RNA Detection and Analysis**Ryan Heller**, Suhman Chung, Kyle Dumas, Kasia Crissy, Patrick Barchard, David Schuster, Thomas SchoenfeldQIAGEN Beverly, United States of America; Ryan.Heller@qiagen.com

P055

Polymerase Strand Displacement Reaction with SD DNA Polymerase – New Alternative to PCR**Anke Fenn**, Ferdinand Holzinger, Konstantin Ignatov, Vladimir Kramarov, Andreas Kirsten, Sergey KovalenkoBioron, Germany; fenn@bioron.net

P056

qPCR, dPCR and NGS for The Detection of EGFR Mutations In Lung Cancer Patients**Francesca Salvianti**, Gemma Sonnati, Filomena Costanza, Pamela PinzaniUniversity of Florence, Italy; francesca.salvianti@unifi.it

P057

SMARTer PicoPLEX Gold: A New Generation of Single Cell NGS Library with High Reproducibility, and Greatly Improved Coverage and Fidelity for Precision Medicine**Matthieu Pesant**¹, Fang Sun², Datta Mellacheruvu², Bayu Sisay², John Langmore², Graeme McLean², Andrew Farmer², Emmanuel Kamberov²¹Takara Bio Europe, Saint-Germain-en-Laye, France; ²Takara Bio USA, Inc., Mountain View, CA 94043, USA; matthieu_pesant@takarabio.com

P058

Sample quality control of Cell-free DNA**Bettina Strauch**, Eva Graf, Elisa VieringAgilent Technologies, Germany; bettina.strauch@agilent.com

P059

SiPOOL: Fast, Reliable Gene Silencing With Exceptional Target Specificity Using Optimally-Designed Complex siRNA Pools**Catherine Goh¹, Andrew Walsh¹, Michaela Beitzinger¹, Jonas Bertram¹, Stefan Hannus¹, Gunter Meister², Michael Hannus¹**¹siTOOLS Biotech GmbH; ²University of Regensburg; catherine.goh@sitools.de

P060

Small Circular RNAs With Antisense Function**Christina Pfafenrot, Albrecht Bindereif**Justus Liebig University of Giessen, Germany; christina.pfafenrot@chemie.bio.uni-giessen.de

P061

Streamlined Single-tube Solutions for High Quality DNA Library Preparation**Yi Jing, Marissa Bolduc, David Bays, Shuhong Li, Eleanor Kolossovski, Brian Komorous, Hongbo Liu, David Shuster**Quantabio, United States of America; Eleanor.Kolossovski@quantabio.com

P062

TATAA Biocenter - Your Full Range Commissioned Service Provider. Get Better Results Faster**Hanna Zoric, Jens Björkman, Mikael Kubista**TATAA Biocenter, Sweden; hanna.zoric@tataa.com

P063

The Spectrum Compact CE System: Fragment Analysis with a Personal Capillary Electrophoresis Device**Christopher D'Jamoos¹, Ayaka Okuno², Doug Storts¹, Robert McLaren¹, Cynthia Sprecher¹, Michiru Fujiocha², Jin Matsumura², Isao Haraura², Asami Terakado², Noriuki Sumida²**¹Promega Corporation, Madison, WI 53711, USA; ²Hitachi High-Technologies Corporation, 882 Ichige, Hitachinaka-shi, Ibaraki-Ken, 312-8504 Japan; chris.djamoos@promega.com

P064

The Synthetic DNA Fragment Use in the qPCR Diagnostics**Martina Grochová^{1,2}, Karel Bílek¹, Kateřina Rosenbergová¹**¹National Institute for NBC Protection (SÚJCHBO, v.v.i.), Czech Republic; ²Faculty of Sciences, University of South Bohemia in České Budějovice, Czech Republic; grochova@sujchbo.cz

P065

ThermaGenix's Universal PCR Additives for Suppressing DNA and RNA Amplification Errors.**Jesus Aquiles Sanchez, John Rice, Kenneth Pierce, Lawrence Wangh**Thermagenix, Inc., Natick, Massachusetts, United States of America; sanchez@thermagenix.com

P066

Use of Single Control DNA to Internally Evaluate Performance of qPCR and dPCR Instruments**Dejan Stebih, Katja Stare, Marjana Camloh, Mojca Milavec**National Institute of Biology, Slovenia; dejan.stebih@nib.si

P067

MOL-PCR and xMAP Technology: Fast Multiplex Method with High Sensitivity**Jirina Markova, Petr Kralik**Veterinary Research Institute Brno, Czech Republic; markova@vri.cz

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Exteme One-Step RT-qPCR: Potential for point-of-care viral detection.**Jessica A. Houskeeper, Lauryn Narramore, Carl T. Wittwer**University of Utah, United States of America; jessica.houskeeper@path.utah.edu

P069

QC Measurements for Predicting Downstream NGS Success with FFPE and Circulating Cell-Free DNA Plasma Samples**Christopher D'Jamoos, Doug Wiczorek, Spencer Hermanson, Curtis Knox, Jennifer Mook, Eric Vincent, Doug Horejsh, Trista Schagat, Doug Storts**Promega Corporation, 2800 Woods Hollow Rd. Madison, WI; chris.djamoos@promega.com

Poster Session – Advanced Molecular Diagnostics in Life Science

P070 – P084

P070

Combination of Hormone and Transcriptome Analyses in the Study of Cold and Freezing Stress in Grass *Lolium perenne*

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P071

Differentiation Potential of NG2-glia Following Different Types of Brain Injuries

Lukas Valihrach¹, Denisa Kirdajova², Denisa Kolenicova², Daniela Krocianova², Jan Kriska², Peter Androvic^{1,3}, Daniel Zucha^{1,4}, Eva Rohlova^{1,4}, Mansi Maheta^{1,4}, Miroslava Anderova², Mikael Kubista^{1,5}

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P072

Metrological Support for Molecular Diagnostics - A Case Study of HCMV and Its Resistance to Ganciclovir

Alexandra Bogožalec Košir¹, Tašja Cvelbar², Mojca Milavec¹

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P073

Detection of Bacteria and Virus Involved Urinary Tract Infections and Profiling Their Antibiotic Resistance Using TaqMan Real-time PCR Assays

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P074

Immunomodulatory Properties of Adipose-Derived Stem Cells Treated with 5-Azacytidine and Resveratrol on Peripheral Blood Mononuclear Cells and Macrophages in Metabolic Syndrome Animals

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P075

Elucidation of the Role of *Tenacibaculum* spp. in Atypical Winter-ulcer in Sea-farmed Atlantic Salmon in Norway

Bjørn Spilsberg, Karin Lagesen, Hanne Katrine Nilsen, Anne Berit Olsen, Duncan Colquhoun

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P076

Investigation Of Association Of Variant Rs17036314 Of PPARG Gene And Rs7923837 Of HHEX Gene In Diabetes Mellitus Type 2 Patients In Iran Population By Tetra-ARMS PCR And Sanger DNA Sequencing

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P077

Microvesicles Derived From Human Adipose-Derived Multipotent Stromal Cells Improves Retinal Functionality in Dogs With Retinal Degeneration.

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P078

Strigolactone Mediated Age - And Organ-Specific Gene Expression In *Arabidopsis thaliana*

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P079**Role of Nitric Oxide During Embryonic Wound Healing****Pavel Abaffy**, Ravindra Naraine, Silvie Tomankova, Radek SindelkaLaboratory of Gene Expression, Institute of Biotechnology, Czech Academy of Science, Czech Republic; pavel.abaffy@ibt.cas.cz**P080****Study Of An In Vitro System For Alzheimer's Disease****Luo Wei**², Larry Wong¹, Deanna Woo², Matthew Hammond², Laura Moriarty², Elisabeth Jordan Dreskin²¹Bio-Rad Laboratories, Hercules, CA, USA; ²Bio-Rad Laboratories, Mississauga, ON, Canada; wei_luo@bio-rad.com**P081****The Expression of Prostaglandins during different Physiological stages in the Bovine Corpus Luteum****Bajram Berisha**^{1,2}, Dieter Schams², Daniela Rodler³, Fred Sinowatz³, Michael Pfaffl²¹University of Prishtina, Kosovo; ²Animal Physiology & Immunology Weihenstephan, Technical University of Munich, Germany; ³Department of Veterinary Sciences, Ludwig Maximilian University of Munich, Germany; bajram.berisha@uni-pr.edu**P082****Use of Universal ProbeLibrary Probes for Detection of Highly Pathogenic Biological Agents****Karel Bílek**, Kateřina Rosenbergová, Martina Grochová, Hana Placáková, Oldřich Kubíček, Jiřina ProcházkováNational Institute for NBC Protection (SÚJCHBO, v.v.i.), Czech Republic; bilek@suichbo.cz**P083****Using *In Vitro* Transcribed mRNA For Gene Therapy Targeting Viral Infections****Andreas Oswald**, Ulrike ProtzerInstitut für Virologie, Technische Universität München, Germany; andreas.oswald@tum.de**P084****Whole Genome Crispr Screening to Identify Potential SERD Molecule Resistance Mechanisms****Christophe Marcireau**, Karine Berthelot, Alice Williard, Hamida Fournet, Delphine Debono, **Gilbert Thill**, Helene Erasmus, Dorine Chassin, Christophe Lanneau, Veeranagouda Yaligara, Cecile Orsini, Michel Didier, Vincent Mikol, Monsif Bouaboula, Laurent DebusscheSanofi, France; Gilbert.thill@sanofi.com