

qPCR & NGS 2015 23rd – 27th March 2015
Symposium & Exhibition & Workshops
Advanced Molecular Diagnostics
for Biomarker Discovery

@TUM, Freising-Weihenstephan, Germany



Scientific coordination:

Michael W. Pfaffl
School of Life Sciences
Technical University Munich
Lehrstuhl für Physiologie
D-85354 Freising-Weihenstephan
Weihenstephaner Berg 3

qPCR-NGS-2015@wzw.tum.de

Scientific board:

Stephen Bustin, Anglia Ruskin University, Chelmsford & Cambridge, UK
Mikael Kubista, BTU, Czech Academy of Sciences & TATAA, Sweden
Vladimir Benes, EMBL, Gene Core, Heidelberg, Germany
Jim Huggett, LGC, London Twickenham, UK
Jo Vandesompele, CMGG, University of Ghent, Belgium

Event organization:

Sylvia Pfaffl, bioMCC, Freising, Germany
Eventmanagement@bioMCC.com

School of Life Sciences
Technical University Munich
Weihenstephan

Tel: +49 8161 713511
Fax: +49 8161 713539

qPCR-NGS-2015@wzw.TUM.de

www.qPCR-NGS-2015.net

Tuesday, 24 February 2015

qPCR & NGS 2015 EVENT ANNOUNCEMENT

Dear researcher,

The great international interest in the previous qPCR & NGS Events from 2004 till 2013 with a constant audience of more than 500 participants from all over the world motivates repeating the success next year in March 2015. We broaden our focus in genomics applications from **quantitative RT-PCR**, over **digital PCR** to the latest **Next Generation Sequencing technologies**. The date for the 7th International qPCR Symposium & Exhibition & Application Workshops is from **23rd to 27th March 2015**. Parallel to the scientific symposium an **industrial exhibition** will take place where around 35-40 international companies will be presenting their newest qPCR, dPCR and NGS services and technologies. The symposium will be followed by various **qPCR & NGS Workshops** taking place March 26th and 27th powered by TATAA Biocenter, Bio-Rad, Qiagen, Genomatix and other leaders in the field.

Event location is the [central lecture hall complex and the foyer](#) at TUM School of Life Sciences (Technical University of Munich) in Freising Weihenstephan, Germany. The TUM and the Biotech region around Munich are part of the largest Biotech cluster in Europe, located close to the Munich airport (MUC) directly in the heart of Bavaria.

The focus of the qPCR & NGS 2015 Event is

Advanced Molecular Diagnostics for Biomarker Discovery

Browse the conference agenda: AgendaHTML.qPCR-NGS-2015.net

As usual the qPCR & NGS Event is structured in three parts:

1. **Symposium** -- taking place March 23-25, including **multiple Talk & Poster Sessions**
2. **Industrial Exhibition** -- taking place March 23-25 **The exhibition is fully booked !**
3. Followed by various **qPCR & NGS Application Workshops** taking place March 26-27

The scientific organization is managed by international well-known scientists in the field of transcriptomics:

Stephen Bustin	Prof. of Molecular Medicine, Faculty of Health, Anglia Ruskin University, UK
Mikael Kubista	Prof. of Biotechnology, BTU, Czech Academy of Sciences & TATAA Biocenter, Sweden
Vladimir Benes	PhD, Head of the Genomics Core Facility at EMBL, Heidelberg, Germany
Jim Huggett	PhD, Science Leader, Nucleic Acid Metrology, LGC, London Twickenham, UK
Jo Vandesompele	Prof. at the Center of Medical Genetics, University of Ghent, Belgium
Michael W. Pfaffl	Prof. of Molecular Physiology, TUM School of Life Sciences, Weihenstephan, Germany (scientific coordination)

Symposium

The symposium is based on **77 lectures and around 75 posters** presented by international recognised experts in their application fields. The emphasis will be on unbiased, didactic and scientific information exchange. One third of the talks will be presented by invited speakers, one third of the speakers will be selected from the submitted abstracts and one third will be given to qPCR and NGS company R&D representatives. Various poster sessions will be held in parallel in a separate poster exhibition hall. All scientific contributions will be published in an abstract book (**qPCR & NGS 2015 Proceedings ISBN 978-3-00-048805-4**). All talks will be recorded and made public in autumn 2015 via the www.eConferences.de streaming platform.

Symposium Sessions for Talk & Poster Presentations:

Central topic is: **Advanced Molecular Diagnostics for Biomarker Discovery**

Please register and submit your scientific contribution (talk or poster abstracts) via our online registration tool, called **ConfTool**
=> <http://registration.qPCR-NGS-2015.net>

Main topic: Advanced Molecular Diagnostics

This session is focusing on the application of highly sophisticated methods, application and algorithms to discover, detect, and validate molecular diagnostic markers. A special focus is lying on the integrative analysis of multi level biomarkers, e.g. microRNA – mRNA, integrative analysis of genomic, proteomic, metabolomic and phenotypic markers.

Main topic: Biomarker Discovery

A session about the discovery, identification and validation of molecular biomarkers: diagnostic, prognostic or therapeutic markers on **DNA, RNA, microRNA or small RNA, metabolome and proteome level** (e.g. disease markers, cancer or stem-cells markers, tissue specific markers, differentiation markers, methylation markers). New assay systems will be presented like high throughput proteomics (MS based proteome map), PLA (Proximity Ligation Assay) or PEA (Proximity Elongation Assay).

Main topic: Next Generation Sequencing (NGS)

NGS applications offers new holistic analysis of any kind of nucleic acid, to investigate the Genome, Exome, Epigenome, Transcriptome and Splicome (total RNA, microRNA, small RNA Seq, long ncRNA), CHIP purified nucleic acids, etc.

Various NGS sub-sessions will be presented:

- NGS overview talks - information technology in the era of NGS
- Pre NGS - sample prep & setup & library generation
- NGS – new sequencing technologies (e.g. single molecule and pore sequencing)
- NGS – data analysis (data management, mapping, alignment algorithms, data de novo assembly)
- NGS – diagnostic applications

MicroGenomics & Single-cells diagnostics

Focus is on micro-genomics, the application of molecular methods to detect biomarkers in a minimal amount of tissue or matrix. New applications in single-cell isolation, separation or characterisation technologies, laser micro dissection, isolating circulating tumour cells (CTC), pre-amplification techniques, sub-cellular PCR, micro-manipulation of cell clusters, cellular micro injection, , single-cell handling, FACS sorting and spotting.

Circulating Nucleic Acids

A new class of biomarkers are circulating nucleic acids (DNA, RNA, small RNAs, and long ncRNAs) which are free floating (?), bound to proteins or covered in micro-vesicles. One focus will be on exosome or micro-vesicles isolation, purification for bio-liquids, amount and size quantification, and characterisation techniques, including intra-cellular and membrane bound protein or lipid markers.

Molecular Diagnostics in Agriculture, Veterinary Medicine, Food & Environmental Science

This session is dedicated to molecular diagnostics in Life Science, with focus on Agriculture, Veterinary Medicine, and Environmental Science (which is the major research focus here at the TUM campus in Weihenstephan). All applications of highly sophisticated quantification methods, field application or algorithms to research the wide field of agro-veterinarian life science are very welcome.

MIQE & QM & Standardisation strategies in molecular diagnostics

This session is focusing on standardisation strategies and quality management in molecular diagnostics. The goal is to guarantee better and more valid results. Of special interest in the context of qPCR are the MIQE guidelines (minimum information for publication of quantitative real-time PCR experiments). Following these guidelines will encourage better experimental practice, allowing more reliable and unequivocal interpretation of qPCR results.

Digital PCR & Nano-fluidics

Digital PCR (dPCR) can be used to directly quantify and clonally amplify nucleic acids including DNA, cDNA, mRNA or microRNA. It allows a more reliable collection and highly sensitive measurement of nucleic acid amounts, applications in copy number variants, point mutations in molecular diagnostics.

Non-coding RNAs -- microRNA, small RNAs, long non-coding RNAs

This session is dedicated to the family of non-coding RNA and its RNAi mechanism and applications: extraction of non-coding RNAs, RT-qPCR technologies to detect microRNA, long-non coding RNAs and new classes of small RNAs, siRNA knock down applications, microRNA targets and microRNA precursors, new siRNA manipulation, etc.

qPCR Data Analysis -- BioStatistics & BioInformatics

The data analysis in RT-qPCR expression profiling experiments is still challenging and time consuming. From the literature it is well known, that a lot of error is introduced by wrong experimental study design, reference gene normalisation or qPCR data analysis. This session is focusing on useful algorithms and software applications for data mining, calculation of relative expression, primer and probe design for any kind of nucleic acid (mRNA, microRNA, piRNA), real-time PCR efficiency determination, mathematical modelling, multivariate expression profiling raw data analysis, statistics in real-time PCR, data management, multi-way expression profiling, multiple regression analysis, 3D data visualization, and much more!

Industrial talks

Participating companies have the opportunity to [sponsor the event](#) and present their latest technologies. From our Lead- and Gold-Sponsors we expect to have 15-20 industrial presentations. All these presentations should be [focused on key problems and scientific challenges in molecular diagnostics](#) using qPCR or NGS and should offer solutions to these. Participants like to be informed about methodological news and their application based on innovative industrial research. The organizers strongly appeal to the participating companies to present an [interesting academic talk](#) (25 min talk and 5 min discussion) showing results from R&D and NOT a sales promotion of existing products. Therefore company representatives from the [R&D and research orientated product specialists](#) will be given priority. All talks will be recorded and made public in autumn 2015 via the www.eConferences.de streaming platform together with around 200 talks from qPCR 2010 onwards.

Publish your conference contribution in "Biomolecular Detection and Quantification"

[Biomolecular Detection and Quantification \(BDQ\)](#) is an open access, peer-reviewed international journal dedicated to championing excellence in molecular study design, measurement, data analysis and reporting. Its focus is on the application of qualitative and quantitative molecular methodologies to all areas of clinical and life sciences.

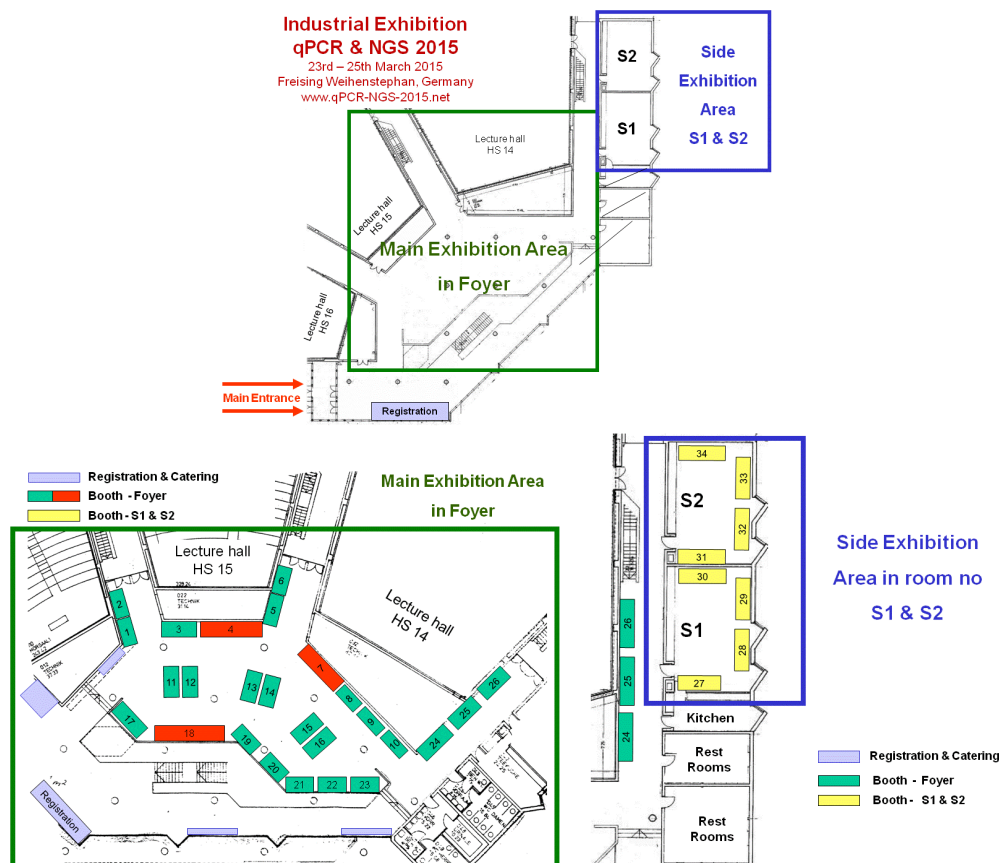
The journal has two main aims:

1. to provide a forum for discussion and recommendation of guidelines designed to improve the accuracy of molecular measurement, its data analysis and the transparency of its subsequent reporting;
2. to publish molecular biology based studies that adhere to best practice guidelines, both current and future.

A special BDQ issue with the title ["Advanced Molecular Diagnostics for Biomarker Discovery"](#) will be published in summer 2105. You can submit your conference contribution manuscript (either your talk or poster presentation) until **31st March 2015** to <http://ees.elsevier.com/bdq/>

Industrial Exhibition

An industrial exhibition will be held during the qPCR Symposium **March 23-25** in the **main exhibition area** foyer of the central lecture hall complex (marked by green frame) and in the **side exhibition area** (room S1 and S2 marked by blue frame). The exhibition sites are very close to the lecture halls HS 14 and HS 15 where all the symposium lectures will be held. **The exhibition is fully booked !**



Application Workshops

All workshops offer extensive hands-on training by qPCR and NGS experts. The workshop labs and seminar rooms are close to the lecture hall complex. For a detailed description of the workshop contents =>

<http://workshops.qPCR-NGS-2015.net>

1) qPCR Workshop topics:

The qPCR and dPCR workshops will be held in parallel 26th and 27th March 2015 and are hosted by TATAA Biocenter (www.tataa.com) and Bio-Rad (www.Bio-Rad.com).

- **Basic real-time qPCR Application Workshop** (2-days) hosted by TATAA
- **qPCR Data Analysis Workflow: from instrument data to interpretation** (2-days) hosted by TATAA
- **Digital PCR workshop** (2-days) hosted by Bio-Rad



2) NGS data analysis workshop topics:

The NGS data analysis workshops on 26th and 27th March 2015 are hosted by Genomatix (www.Genomatix.com) and Qiagen (www.Qiagen.com).

- **NGS data analysis workshop** (2-days) hosted by Genomatix
- **“Sample to Insight” Bioinformatic Systems Solutions** (2-days) hosted by Qiagen



Symposium & Workshop Fees

The registration fees include:

- Printed proceedings showing all abstracts of the scientific talk & poster contributions (ISBN 978-3-00-048805-4)
- Printed issue of our new Journal “*Biomolecular Detection and Quantification*”
- Online access to full presentations: with permission from the authors and presenting companies all recorded talks, presentation slides, and posters will be available online as PDF on the streaming portal www.eConferences.de (password protected until autumn 2015 and only available for participants)
- Full catering service: including all kind of drinks, coffee bar, milk bar, various cold or hot snacks, three lunch meals and two evening events: **Get-Together Reception** on Monday March 23rd and a **Conference Dinner** on Tuesday evening March 24th, in Bräustüberl Weihenstephan the “world's oldest brewery” <http://www.braeustueberl-weihenstephan.de> with various delicious international buffets, alcoholic drinks, soft drinks, cocktails and dancing.

	Early registration fees until 31 st January 2015	Late registration fees from 1 st February 2015
Symposium (3 days)		
students*	360 Euro	410 Euro
academic attendants	460 Euro	510 Euro
industrial attendants	560 Euro	610 Euro
Workshop (2 days)		
students*	440 Euro	490 Euro
academic attendants	540 Euro	590 Euro
industrial attendants	640 Euro	690 Euro
Symposium + Workshop (5 days)		
students*	750 Euro	850 Euro
academic attendants	950 Euro	1.050 Euro
industrial attendants	1.150 Euro	1.250 Euro

* The students should present a valid student passport at the registration.

Net prices are displayed -- 19% German VAT is additionally charged to the net price!

Please register and submit your scientific contribution (talk or poster abstracts) via our online registration tool, called **ConfTool** => <http://registration.qPCR-NGS-2015.net>

Have a look on the previous event trailers and talks from 2010 to 2013 on www.eConferences.de

If you have further questions, we are pleased to help you. Up to date information is available on the Symposium Homepage www.qPCR-NGS-2015.net

Hope to meet you in March at the qPCR & NGS 2015 Event in Freising!

Michael Joffe

Sponsors and participating companies

Lead Sponsor:



Gold Sponsors:



Silver Sponsors:



Further Companies in the Industrial Exhibition:



Media partners:

A new Open Access journal on molecular methodology applications
 Biomolecular Detection and Quantification  **SUBMIT NOW**

