Course Programm
September – December 2009

BioEPS
Bioscience Events & PCR Services

tataabiocenter
germany

QUALITY instead of QUANTITY

Life Science is still a growing sector and new methods and technologies are continously developed. Therefore permanent training and education becomes so important.

With our specific course program we guarantee highly skilled know-how from own research studies and publications.

We work in close cooperation with different companies to give our participants a general and independent survey of existing technologies and products.

Our aim is to point out a critical way of thinking to increase the quality and significance of experimental data.

Michael Pfaffl

Dr. Michael Pfaffl
Founder BioEPS

www.bioeps.com

Overview

Course programm

PCR

- qPCR Core Module
- Single cell and qPCR
- microRNA and qPCR

Data Analysis

- Biostatistics

Project Management

- Project Management for Academics

qPCR Core Module (3 Days)

Course description:
The introductory course consists of a theoretical part and a practical part.

Day 1:
•Applications and possibilities of qPCR.
•Comparison of qPCR with regular PCR.
•Different instrument platforms and their typical uses
•Primer Design , Probe Design
•Experimental design and optimization
•Basic data handling and analysis

Day 2:
•Principles and priming methods of RT
•Sample Preparation (Extraction of RNA and DNA)
•Introduction to statistics and statistical analysis of data

Day 3:
•Quantification strategies, uses and limitations
•Calculations using different relative quantification methods
•Strategies for normalization of qPCR data

Instructors:
Dr. Michael Pfaffl, Dr. Martina Reiter

Dates:
26. – 28. October 2009 (English)
07. – 09. December 2009 (English)

Prices excl. taxes:
Academic: 930€
Industry: 1140€
Lunches and “Get together” dinner are included in the course fee.

Contact: info@bioeps.com

Single cell and qPCR (3 Days)

Course description:

Day 1: Introduction to single cell and qPCR technology
•qPCR theory and applications
•single cell theory and applications
•sampling and cultivation technologies
•practical qRT-PCR experiments: AmpliSpeed System

Day 2: Pre-amplification and Reverse Transcription in single-cell
•Nucleic acid extraction
•RT and priming strategies
•Optimization of a RT-qPCR experiment
•practical qRT-PCR experiments: AmpliSpeed System

Day 3: Normalization and Quantification of single-cell assays
•Data analysis, Normalization
•Quantification strategies
•Future perspectives
•practical part: data analysis, gene expression analysis

Instructors:
Dr. Martina Reiter, Dr. Diana Hops, Dr. Michael Pfaffl

Dates:
14. – 16. September 2009 (English)

Prices exclusive taxes:
Academic: 860€
Industry: 1040€
Lunches and “Get together” dinner are included in the course fee.

Contact: info@bioeps.com

microRNA and qPCR (3 Days)

Course description:

Day 1: Introduction, microRNA and RNA Quality
•microRNA: theory and applications
•microRNA Quantity and Quality Control
•practical RNA Isolation (totalRNA, microRNA)

Day 2: Reverse Transcription and qPCR
•Reverse Transcription
•qPCR: theory and applications
•Primer Design
•Optimization strategies
•practical real-time qPCR experiment

Day3: Normalization and Quantification
•Data analysis
•qPCR quantification strategies
•Normalization
•practical real-time qPCR experiment

Instructors:
Dr. Martina Reiter, Dr. Michael Pfaffl

Dates:
12. – 14. October 2009 (English)
16. – 18. November 2009 (English)

Prices exclusive taxes:
Academic: 860€
Industry: 1040€
Lunches and "Get together" dinner are included in the course fee.

Contact: info@bioeps.com

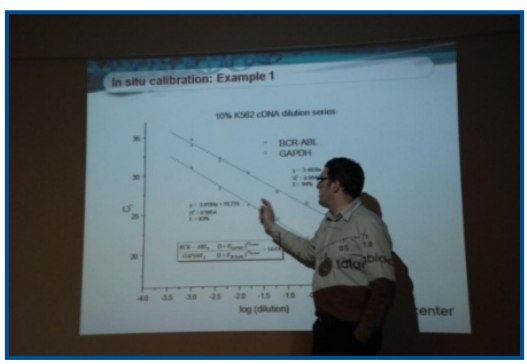
Biostatistics (2 Days)

Course description:

Day 1- Statistical analysis of real-time PCR data
Lectures cover the principles of statistics, including Gaussian statistics, the central limit theorem, p values and statistical hypothesis testing, rank-based methods (non-Gaussian), comparison of two groups (paired and unpaired t-test), Outlier detection (Dixon's test, Grubb's test, Cochran's test), ANOVA and classical calibration. During computer based workshop participants will learn how to analyze typical real-time PCR data sets. Examples include identification of outliers, and how to compare means and variances of paired and unpaired studies.

Day 2- Gene expression profiling with real-time PCR
Lectures cover methods to classify samples and genes. The methods presented include Principal Component Analysis, Potential Curves, Hierachical Clustering, Self-Organizing Maps, and Trilinear Decomposition. During computer based workshops participants will classify metabolic genes in yeast, developmental stages in Xenopus laevis, Breast cancer data, and developing stem cells.
Practical parts: using GenEx Software from MultiD.

Instructors:
Dr. Ales Tichopad



Dates:
15. – 16. October 2009 (English)
19. – 20. November 2009 (English)
10. – 11. December 2009 (English)

Prices exclusive taxes:
Academic: 760€
Industry: 900€
Lunches and “Get together” dinner are included in the course fee.

Contact: info@bioeps.com
BioEPS offers the **GenEx Software** from MulitD.
For ordering please visit “Services” on our homepage.

Project Management for Academics (4 Days)

Course description:
The course shows the principles of project management including many practical parts.

Issues:
•Project start, aims and project organization, project phases
•Stakeholder management, Risk management, Communication
•Structure of a project, cost plan
•Project controlling, -management, -end
•Practical parts: Project-Exercises, Organization of a project

Instructors:
Dr. Martina Reiter

Dates:
09. – 12. November 2009 (English)

Price excl. taxes:
780€
Lunches are included in the course fee.

Contact: info@bioeps.com

Our Service

Location:

BioEPS is located at the IZB in Freising, next to the Munich airport with regular bus or taxi transfer to Freising City . Contingents for the course participants are booked in Hotel Lerner, a family hotel in Freising. The hotel is within ten minutes walking distance to the BioEPS facilities.

Social event:

For every course a „Get together“ evening is orgnized in the oldest brewery of the world, „Weihenstephan“.
In a nice atmosphere course issues can be discussed or the people can simply enjoy the bavarian kitchen.

Customer-specific courses

BioEPS offers courses designed for the interests and needs of the customer.
BioEPS can also assist you in your company trainings which you offer for customers or employees.
These courses can be hold in Freising or at any desired place with a variable number of participants.

Our Service

Research

BioEPS is the perfect partner for research projects including qPCR analysis and statistical evaluations. With years of experience in research and project management within the field of molecular diagnostic, BioEPS optimizes processes resulting in high quality and valuable results.

Bioscience Events

BioEPS is organizing bioscience events within the life science sector. Together with partners from industry and university a wide range of events can be organized:

•scientific congresses and symposia with industrial exhibitions
•customer specific seminars focused on latest issues in biotechnology.

The qPCR Symposium (www.qpcr2009.net) was organized by BioEPS and the TU Munich every two years. Since 2004 the qPCR Symposium has become ***the*** world-leading congresses in this innovative technology. We are looking forward to welcome you to the next qPCR Symposium in 2011 in Freising-Weihenstephan.

qPCR 2009 9 – 13th March 2009
Symposium & Exhibition & Workshops
Main topics: ***Diagnostics & Molecular Markers***
4th int.qPCR Event, Technische Universität München, Freising-Weihenstephan, Germany

The BioEPS Team

PhD, Dr. Michael W. Pfaffl
After his habilitation at the Technical University of Munich about "Livestock transcriptomics: Quantitative mRNA analytics in molecular endocrinology and mammary gland physiology" in June 2003, Michael Pfaffl became reader in physiology at the Centre of Life and Food Sciences in Freising. In 2006 he founded the company Biosience Events/ TATAA Biocenter Germany.
Today he has reached the Senior Scientist status at the Institute of Physiology and is one of the leading scientists concerning qPCR technology and relative quantitation. Next to his scientific work he is founder and CSO at BioEPS.

PhD, Dr. Martina Reiter
Martina Reiter finished her studies of nutrition science and sports at the Justus-Liebig-University in Giessen. At the Technical University Munich she reached the PhD degree with the thesis title: "Modification of metabolic pathways by anabolic agents and identification of gene expression biomarkers“ in the team of Prof. H.H.D. Meyer and Michael Pfaffl. During this time she was responsible for the management of animal trials and clinical studies. Next to her PhD she worked as instructor of qPCR courses for TATAA Biocenter in Germany and Czech Republic.
In 2008 she became CEO and partner of BioEPS and was certified as project manager (IPMA, level D).

The BioEPS Team

MBA, Dipl. Betriebswirtin (FH) Sylvia Pfaffl

Sylvia Pfaffl finished her studies of economics in Munich in the year 1996 after her professional education in a company-travel-agency and long years experience in organizing business travels and conferences.
After her studies she worked in the management of several human resources and financial departments.
In 2006 she founded BioScience Events together with her husband Michael Pfaffl, a company which was already dealing in Marketing Communication and the performance of Workshops and Symposia in the Life Science field.
In 2008 she became founder and CFO of BioEPS.

PhD, Dr. Ales Tichopad

Ales Tichopad studied biology at Charles University in Prague. He finished his PhD at the Technical University Munich in the team of Michael Pfaffl, where he specialized in real-time PCR technology and development of data analysis methods. He worked as a statistician for 3 years in pharmaceutical industry. Since 2001, Ales Tichopad has developed several highly cited methods of data analysis and has founded two companies with a focus on data analysis for pharma- and biotech-industry. Since recently Ales Tichopad is active as an external senior scientist at the Technical University of Munich.