

Advanced Methods in RNA Quantification
20-22 May 2009, London UK
PP2 Lecture Theatre, People's Palace, Queen Mary, Mile End Road

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This three-day workshop is aimed at giving participants a deeper understanding of the importance of RNA quality in expression studies involving qPCR, microarray and next generation sequencing experiments. Topics cover all aspects of using RNA, from sample selection to downstream applications.

Sample processing

- Sample selection and acquisition
- RNA stability
- Biobanking of fresh tissue
- Blood collection
- Archival materials
- Assessment of fixatives, fixation and tissue processing on morphology and RNA integrity
- Microdissection and laser capture microdissection
- Cellular total RNA, mRNA and miRNA extraction methods
- RNA extraction from difficult samples
- Extraction from limited amount of material and single cells
- Extraction of RNA from pathogens
- Automation benefits
- Discussion forum: Consequences of sample-dependence of RNA signature data

RNA quality assessments

- Appropriate determination of concentration of purified RNA
- Storage of purified nucleic acids
- Predictors of mRNA integrity
- New quality assessment predictors
- Evaluation of inhibition
- RNA standards
- Discussion forum: The Chicken or the Egg: Standardisation vs. Quality

Downstream applications

- Reverse transcription: effects of different RT enzymes
- Reverse transcription: effects of different priming methods
- Reverse transcription: effects of different experimental conditions
- Reverse transcription: structural considerations
- Whole transcriptome amplification
- Pre-amplification considerations
- Hybridisation-based quantification of RNA: viable alternative to RT?
- Expression Microarrays from Formalin Fixed Paraffin Embedded Tissue, Considerations in the Reduction to Practice
- Molecular Profiling of Clinical Specimens with Degraded RNA
- Discussion forum: Biological considerations: miRNA, mRNA, correlation with protein activity

Participants: Limited to 40; Cost: UK£ 350 for three days

To register: Email: s.a.bustin@qmul.ac.uk

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