

## One-Day Seminar

# Solutions in Microbial Genomics

*Comparative genomic analysis with the ERGO bioinformatics suite: the world's most comprehensive microbial genomic database and largest collection of metabolic and non-metabolic pathways!!*

**Date:** to be determined

**Venue:** Seminar Room 2, Chancellor's Building, University of Edinburgh  
Medical School, Little France Crescent, Edinburgh EH16 4SB

**Time:** 10.00 to 15.30

**WELCOME**

**10.00 – 10.30 Coffee and registration**

**SCIENTIFIC PRESENTATIONS**

**10.30 – 11.30 Dr. Vinayak Kapatral, Integrated Genomics Inc.**

**Microbial Systems Biology Tools for Metabolic Engineering**

Metabolic engineering requires the technology to comprehensively understand an organism's physiology and metabolism at a genomic level. The ERGO genome analysis and discovery system provides a systems-biology informatics tool-kit centered on comparative genomics to capture, query and visualize sequenced genomes. Building upon the most comprehensive genomic database available anywhere, integrated with the largest collection of microbial metabolic and non-metabolic pathways and using the Company's proprietary algorithms, ERGO assigns functions to genes, integrates genes into pathways, and identifies previously unknown or mischaracterized genes, cryptic pathways and gene products. We will present examples of identifying exploitable metabolic pathways and metabolic engineering strategies using the data and systems in the ERGO software.

**11.30 – 12.30 Dr. Anamitra Bhattacharyya, Integrated Genomics Inc.**

**Case studies in microbial genomics: from pathogens to biofuels**

The ERGO™ genome analysis and discovery platform comprises a collection of over a thousand complete and partial genomes. The ERGO™ tool-kit not only provides end-users with gene and genome annotation utilities but also leverages its curated gene annotations and extensive pathway collection using comparative genomics approaches to build *in silico* functional 'road-maps' of an organism in order to understand metabolic and physiological potential. A number of diverse case studies in microbial genome analysis using the ERGO™ bioinformatics platform will be presented ranging from: formal genome sequencing and analysis projects, nutritional profiling and growth media development, identification of novel enzymes, and integration and analysis of expression microarray data. Finally, new directions and applications of the ERGO™ platform will be discussed including microbial strain development.

**LUNCH**

**12.30 – 13.15 Buffet lunch**

**DEMONSTRATION**

**13.15 – 15.30 Interactive demonstration of the ERGO™ genome analysis platform**

For further information and to register for this exciting event, contact **Cheryl Lockett** at BlueVector Limited. Please note that places are limited.

**The ERGO system demonstration can be tailored on request.**

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