

2009 International Summer School on Chips, Computers and Crops

Zhejiang University, Hangzhou, China
September 18-27, 2009

Place:

Conference Room: Zi Jin Gang Hotel (Sep. 18-20); Computer room 234 (Sep. 21-27), Building of Life Sciences, Zi Jin Gang Campus, Zhejiang University

Program (revision: 9/20/2009)

September 18-20, Friday—Sunday

Joint with the CIB workshop

September 21, Monday

08:30~09:00 Introduction: Ming Chen & Andrew Harrison
An overview of what needs to be done at the school and the expected work load on each day.

Session 1 (Lectures)

09:00~10:15 Lecture 1

Introduction to transcriptomics, Affymetrix technology.

Lecturer: Sean May, Nottingham University, UK

10:30~11:45 Lecture 2

Databases and information systems for biology.

Lecturer: Matthias Lange, IPK, Germany

12:00~13:30 **Lunch**

Session 2 (Practical)

13:30~17:00 Practice 1

GeneSpring.

Lecturer: Neil Graham, Nottingham University, UK; Xuming Wang, China

17:30~18:00 **Dinner**

September 22, Tuesday

Session 3 (Lectures)

09:00~10:15 Lecture 3

Analysis of biological networks.

Lecturer: Hendrik Mehlhorn, IPK, Germany

10:30~11:45 Lecture 4

Introduction to bioinformatics resources.

Lecturer: Ralf Hofestädt, University of Bielefeld, Germany

12:00~13:30 **Lunch**

Session 4 (Lectures)

14:00~14:30 Lecture 5

CELLmicrocosmos 4.1: A Software Approach for the Localization of Metabolic Pathways in a Virtual Cell Environment

Lecturer: Bjoern Sommer, University of Bielefeld, Germany

14:45~17:00 **Poster session**

17:30~18:00 **Dinner**

September 23, Wednesday

Session 5 (Lectures)

09:00~10:15 Lecture 6

Gene networks.

Lecturer: Hugh Shanahan, University of London, UK

10:30~11:45 Lecture 7

Detail description of Affymetrix technology.

Lecturer: Andrew Harrison, Essex University, UK

12:00~13:30 **Lunch**

Session 6 (Practical)

13:30~17:00 Practice 2

Tricks with Affymetrix analysis for cross-species analysis.

Lecturer: Sean May, Nottingham University, UK

17:30~18:00 **Dinner**

September 24, Thursday

Session 7 (Lectures)

09:00~11:40 Lecture 8

Introduction to plant sciences.

Lecturer: Chuanzao Mao, Zhejiang University, China

12:00~13:30 **Lunch**

Session 8 (Practical)

13:30~17:00 Practice 3

R/Bioconductor.

Lecturer: Hugh Shanahan, University of London, UK; Junjie Cao, Zhejiang University, China

17:30~18:00 **Dinner**

September 25, Friday

Session 9 (Lectures)

09:00~10:15 Lecture 9

Building gene networks from large datasets.

Lecturer: Chris Needham, the University of Leeds, UK

10:30~11:45 Lecture 10
Research problems facing analysts.
(Open discussion)

12:00~13:30 **Lunch**

Session 10 (Practical)

13:30~17:00 Practice 4
Groups work together on data analysis (with lecturers available to help).

17:30~18:00 **Dinner**

September 26, Saturday

Session 11 (Lectures)

09:30~11:40 Lecture 11
Modelling gene networks using Petri-nets.
Lecturer: Ming Chen, Zhejiang University, China

12:00~13:30 **Lunch**

Session 12 (Practical)

13:30~17:00 Practice 5
Each group gives presentation on biology they have discovered, prizes awarded,
general discussion on biology.

17:30~18:00 **Dinner**

September 27, Sunday

Session 13

9:30~11:40 **Open session**
Science in the UK and China, and moving between countries; career structures in
both countries. We expect to recruit UK students who may be considering spending
part of their careers in China and we hope some of the Chinese students similarly
look to spend part of their careers in UK. The RCUK-China relevant organisations are
included.

Lecturer: Ming Chen, Zhejiang University; Andrew Harrison, Essex
University

12:00~ **Dinner & Farewell**