

# ERASysBio Summer School Data Management for Systems Biology III

Universidad de Verano de Adeje, Tenerife, Spain  
25<sup>th</sup> –29<sup>th</sup> July 2010

## Sunday, 25<sup>th</sup> July 2010

17:00 – 19:00 Delegates to Arrive  
Registration  
20:00 Dinner

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## Monday, 26<sup>th</sup> July 2010

07.15 – 08.15 Breakfast  
08.20 Bus departing to summer school venue  
09:00 – 09:05 Welcome by ERASysBio  
Julio Barbas, MICINN, Spain  
  
09:05 – 10:00 Icebreaking exercise  
Led by Gabriela Pastori, BBSRC, UK  
  
10:00 – 10:15 Coffee Break and Refreshments

### Session 1

#### Data and standards

10:15 – 11:00 Keynote lecture: 'Managing systems biology data: the SysMO-DB approach', **Katy Wolstencroft**, University of Manchester  
  
11:00 – 12:30 Tutorial 1  
Standard Operating Procedures, by **Katy Wolstencroft**, University of Manchester, UK  
○ Definition and storage of SOPs (experimentation)  
○ Implementing SOPs in multi-partner projects  
  
12:30 – 13:30 Lunch



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|---------------|---|
| 13:30 – 15:00 | Tutorial 2<br>Conceptual modelling and standardisation of wet and dry lab data, by <b>Olga Krebs</b> , Heidelberg Institute for Theoretical Studies, Germany.   |
| 15:00 - 15:30 | Coffee Break and Refreshments   |
| 15:30 – 17:00 | Tutorial 3<br>Introduction to modelling, model exchange and standardisation with Systems Biology Markup Language (SBML) by <b>Sven Sahle</b> and <b>Katrin Huebner</b> , University of Heidelberg, Germany. |
| 17:00 – 17:45 | Keynote lecture: ‘Why share my data? Principles and latest trends in access to research data from public funding’, <b>Chris Taylor</b> , European Bioinformatics Institute, Hinxton, UK                     |
| 18:00         | Bus departing to hotel  |
| 20:00         | Dinner  |

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## Tuesday, 27<sup>th</sup> July 2010

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|---------------|--------------------------------------|
| 07.15 – 08.15 | Breakfast                            |
| 08.20         | Bus departing to summer school venue |
| 09:00 – 09:05 | Recap of day 1                       |

### Session 2      Tools for systems biology

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|----------------|---|
| 09:05 - 09:45  | Keynote lecture: ‘Dealing with models when most parameter values are unknown’, <b>Sven Sahle</b> , University of Heidelberg, Germany. |
| 09:45 – 10:00  | Coffee Break and Refreshments   |
| 10:00 – 10:15  | Introduction to Session 2, <b>Sven Sahle</b> , University of Heidelberg, Germany.<br><br>Hands-on Tutorial Sessions                   |
| 10: 15 – 12:00 | Taverna, by <b>Katy Wolstencroft</b> , University of Manchester, UK   |
| 12:00 – 13:30  | Copasi/Sycamore, by <b>Sven Sahle</b> and <b>Katrin Huebner</b> , University of Heidelberg, Germany                                   |
| 13:30 – 14:30  | Lunch   |
| 14:00 – 15:30  | SabioRK, by <b>Olga Krebs</b> , Heidelberg Institute for Theoretical Studies, Germany   |



|               |   |
|---------------|---|
| 15:30 - 15:45 | Coffee Break and Refreshments   |
| 15:45 – 17:00 | Introduction to Systems Biology Software Infrastructure and Systems Biology Graphical Notation, including a brief introduction to Edinburgh Pathway Editor and Cell Designer, by <b>Richard Adams</b> , Centre for Systems Biology at Edinburgh, UK |
| 17:00 – 17:15 | Feedback from Parallel Sessions   |
| 17:15 - 17:30 | Presentation of other Tools by participants   |
| 17:45         | Bus departing to hotel  |

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### Wednesday, 28<sup>th</sup> July 2010

#### Session 3      **No barriers - bringing experimentalists and modellers together**

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|---------------|---|
| 07.15 – 08.15 | Breakfast   |
| 08.20         | Bus departing to summer school venue  |
| 09:00 – 09:15 | Recap of day 2  |
| 09:15 – 10:00 | Keynote lecture: 'Losing sight of the forest for the trees: cancer research as an example', <b>Yuri Lazebnik</b> , Cold Spring Harbor Laboratory, US  |
| 10:00 – 10:15 | Coffee Break and Refreshments   |
| 10:15 – 10:30 | Introduction to the No Barriers Hands-on Tutorial Sessions, by <b>Katy Wolstencroft</b> , University of Manchester, UK  |
|               | In this session, modellers will be given experience in experimental data interpretation and experimentalists will learn to construct and validate models using experimental data. Set-up of breakout groups.  |
|               | Hands-on Tutorial Sessions<br>Experts: Katy Wolstencroft, Olga Krebs, Sven Sahle, Katrin Huebner, Richard Adams, Yuri Lazebnik.   |
| 11:00 – 13:00 | Parallel Hands-on Tutorial Sessions <ul style="list-style-type: none"> <li>○ Tutorial 1: Data interpretation</li> <li>○ Tutorial 2: Aspects of modelling; fitting models to experimental data</li> <li>○ Tutorial 3: Refining model parameters</li> </ul> |
| 13:00 – 14:00 | Lunch   |



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|-----------------|---|
| 14:00 – 16:30   | Parallel Hands-on Tutorial Sessions (cont.) <ul style="list-style-type: none"> <li>○ Tutorial 1: Data interpretation</li> <li>○ Tutorial 2: Aspects of modelling; fitting models to experimental data</li> <li>○ Tutorial 3: A proposed graphical standard for systems biology</li> </ul> |
| (15:00 - 15:15) | Coffee Break and Refreshments)  |
| 16:30-17:30     | Feedback/Reporting<br>Groups reporting on exercises, i.e. explaining others what they did and what they learned. We will also discuss issues and problems that have arisen throughout the day   |
| 17:30 – 17:45   | Set-up of group appointments for Summer School Clinic   |
| 18:00           | Bus departing to hotel  |
| 20:00           | Dinner  |

#### Thursday, 29<sup>th</sup> July 2010

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|---------------|---|
| 07.15 – 08.15 | Breakfast   |
| 08.20         | Bus departing to summer school venue  |
| 09:00 – 09:15 | Recap of day 3  |
| 09:15 – 09:45 | Closing keynote lecture: 'Eight years later... can a systems biologist fix a radio?', <b>Yuri Lazebnik</b> , Cold Spring Harbor Laboratory, US. |
| 09:45 – 10:30 | <b>Summer School Clinic</b><br>Participants to meet with experts in small groups to discuss specific issues about their own work.               |
| 10:30 – 10:45 | Coffee Break and Refreshments   |
| 10:45 – 11:30 | <b>Summer School Clinic</b> (cont.)   |
| 11:30 – 12:15 | <b>Final Session</b> , including Overall Feedback<br><b>Gabriela Pastori</b> , BBSRC, UK  |
| 12:15 – 12:30 | Closing remarks<br><b>Alf Game</b> , BBSRC, UK  |
| 12:30 – 13:30 | Lunch & End   |
| 13:30         | Bus departing to hotel  |

