# Winter School in Molecular and Cellular Cognition
# Zürich, Switzerland

## Outline of the Winter School

The Winter School in Molecular and Cellular Cognition is part of a series of educative schools organized by the European Branch of the Molecular and Cellular Cognition Society (EMCCS, www.molcellcog.com) every 2-3 years in Europe. The goal is to foster the development of this new field of research, train and educate young researchers expected to contribute to the field in the near future. The 2009 Winter School in Zürich will be technically oriented and will provide forefront theoretical and practical training in current concepts and methodologies in molecular and cellular cognition. It will combine lectures and hands-on practicals on methods in behaviour, electrophysiology, molecular biology, epigenetics, proteomics and imaging commonly or newly used in the field. It will also include a course on how to write a paper/grant proposal. The School is intended for 1st year PhD students and postdocs (max 25) who wish to acquire good bases and broad knowledge of the field. To apply, include 1-page cv, a motivation letter stating the reasons for applying and what you expect from the school, and a brief support statement by your lab head (all in a single pdf). A tuition fee of 1000 CHF/student (700€/1000US$) will be charged to cover accommodation, food, animals, reagents, material, etc.

## Main Responsible

Isabelle Mansuy
European Branch of the Molecular and Cellular Cognition Society (EMCCS) www.molcellcog.org

## Location of the Winter School

Brain Research Institute
University of Zürich/
Swiss Federal Institute of Technology Zürich
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## Dates/duration

Dates: 6-13 December 2009

Number of working days: 6

Proposed deadline for registration: October 1st 2009

## Lecturers/Attendance

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|---|---|
| Speakers: | 9 |
| Students: | max 25 (10-12 1st year PhD students and 10-12 1st year postdocs) |
| Tutors/Co-organizers: | 10<br>Johannes Bohacek, Andrea Brunner, Mélissa Farinelli, Tamara Franklin, Fabrice Heitz, Isabelle Mansuy, Osvaldo Mirante, Charles Park, Ry Tweedie-Cullen, Hans Welzl.<br>Administration: Tanya Buelbuel |

**DRAFT PROGRAM**

**DAY 1: Sunday, 6 December**

Arrival and Welcome Reception (18.00-21.00)

**DAY 2: Monday, 7 December**

Behavioral Approaches to Cognition

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|---|---|
| 9.00-10.15 | Lecture by Hans Welzl, Institute of Anatomy, UZH: General introduction, factors influencing behavior |
| 10.15-10.30 | Coffee break |
| 10.30-11.15 | Lecture by Johannes Bohacek, Brain Research Institute, UZH/ETHZ: How to test different forms of memory |
| 11.15-12.00 | Lecture by Riccardo Brambilla, San Raffaele Institute, Milano: Drug addiction |
| 12.00-13.30 | Lunch |
| 13.30-18.00 | Practical work: Fear conditioning, object recognition, conditioned taste aversion, elevated plus maze, passive/active avoidance, Porsolt swim test, open field, environmental enrichment. Demonstration by companies. |
| 19.30 | Dinner |

**DAY 3: Tuesday, 8 December**

Improve your Writing Skills / Behavioral Approaches to Cognition (continued)

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|---|---|
| 9.00-10.15 | Course on “How to write a paper/grant proposal” |
| 10.15-10.45 | Coffee break |
| 10.45-12.00 | Course on “How to write a paper/grant proposal” |
| 12.00-13.30 | Cocktail Lunch with Claudia Wiedemann, Chief Editor Nature Reviews Neurosciences |
| 13.30-18.00 | Practical work: Fear conditioning, object recognition, conditioned taste aversion, elevated plus maze, passive/active avoidance, Porsolt swim test, open field, environmental enrichment. Demonstration by companies. |
| 19.30 | Dinner |

**DAY 4: Wednesday, 9 December**

Epigenetics and Proteomics in Cognition

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|---|---|
| 9.00-10.15 | Lecture by Isabelle Mansuy, Brain Research Institute, UZH/ETHZ: Epigenetics |
| 10.15-10.45 | Coffee break |
| 10.45-12.00 | Lecture by Ry Tweedie-Cullen/Charles Park, Brain Research Institute, UZH/ETHZ: Proteomics |
| 12.00-13.30 | Lunch |
| 13.30-18.00 | Practical work. Visit Functional Genomics Center Zürich |
| 19.30 | Dinner |

**DAY 5: Thursday, 10 December**

Electrophysiological and Imaging Approaches to Cognition

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|---|---|
| 9.00-10.15 | Lecture by Urs Gerber, Brain Research Institute, UZH: Synaptic transmission and plasticity in hippocampus |
| 10.15-10.45 | Coffee break |
| 10.45-12.00 | Lecture by Andreas Lüthi, FMI Basel: Amygdala plasticity |
| 12.00-13.30 | Lunch |
| 13.30-18.00 | Practical work: electrophysiology, stereotaxy. Visit Imaging Center ETH Hönggerberg |
| 19.30 | Dinner |

**DAY 6: Friday, 11 December**

How to Improve your Writing Skills / Electrophysiological and Imaging Approaches to Cognition (continued)

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|---|---|
| 9.00-10.15 | Course on “How to write a paper/grant proposal” |
| 10.15-10.45 | Coffee break |
| 10.45-12.00 | Course on “How to write a paper/grant proposal” |
| 12.00-13.30 | Lunch |
| 13.30-18.00 | Practical work: electrophysiology, stereotaxy. Visit Imaging Center ETH Hönggerberg |
| 19.30 | Dinner |

**DAY 7: Saturday, 12 December**

Conclusions

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| 9.00-12.00 | Presentation of results / Journal club / Discussions |
| Afternoon | Social / Ski / City tour |

**DAY 8: Sunday, 13 December**

Departure