



STREAMLINE

MODELING NEURODEVELOPMENTAL DISORDERS

Streamline Summer School

"Identification of key genes and novel drug targets for neurodevelopmental disorders"

Organisers: Prof. Dr. David Linden, Maastricht University

Dr. Spyros Petrakis, CERTH

Date: June 5th - 7th, 2024

Location: CERTH, Thessaloniki, Greece

Programme

Day 1

Background and computational methods

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| 09.00-09.05 | Welcome and Introduction, S. Petrakis, INAB/CERTH |
| 09.05-09.35 | Clinical phenotypes and genetics of neurodevelopmental disorders, D. Linden, Maastricht University |
| 09.35-10.00 | Methods of epigenetics and methylation analysis, E Pishva, Maastricht University |
| 10.00-10.30 | Methods of microRNA analysis, L. de Nijs, Maastricht University |
| 10.30-11.00 | Coffee break |
| 11.00-11.30 | Methods of GWAS and Imaging Genetics, G. Blokland, Maastricht University |
| 11.30-13.00 | Workshop: Methods of GWAS, G. Blokland, Maastricht University |
| 13.00-14.00 | Lunch break |
| 14.00-16.00 | Workshop: molecular pathways, pathway modelling and networks and network extension with drug related database information, F. Ehrhart, Maastricht University |

Day 2

Background and methods for drug screening

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| 09.00-09.15 | Introduction to compound screening, S. Petrakis, INAB/CERTH |
| 09.15-10.00 | Methods and algorithms for in silico screening, A. Papadopoulos, ITI/CERTH |
| 10.00-10.30 | Network-based drug repurposing, S. Notopoulou, INAB/CERTH |



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| 10.30-11.00 | Coffee break |
| 11.00-12.00 | Cell-based assays for experimental validation of hit molecules, I. Gkekas/K. Pliatsika, INAB/CERTH |
| 12.00-13.00 | Hit-to lead compound optimization, T. Calogeropoulou, NHRF |
| 13.00-14.00 | Lunch break |
| 14.00-15.30 | Workshop: Set up of a LuTHy assay, I. Gkekas, INAB/CERTH |
| 15.30-17.00 | Workshop: Set up of a Seahorse assay, K. Pliatsika, INAB/CERTH |

Day 3

Experimental measurements and data analysis

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| 09.00-11.00 | Workshop: Implementation of a LuTHy assay, I. Gkekas, INAB/CERTH |
| 11.00-13.00 | Workshop: Implementation of a Seahorse assay, K. Pliatsika, INAB/CERTH |