

Short course on GPCRs August 23-25th 2010.

Place: Viikin infokeskus Korona, sali 2 Auditorio (235)

Street address: Viikinkaari 11 (Viikki campus, Helsinki)

Monday August 23th, 2010.

8h30 - 9h15 *Welcome coffee & pullas*

On-site registration will still be possible: Please bring the fee payment as cash or a copy of bank transfer; alternatively, a certificate that you belong to one of the organizing schools.

9h15 - 10h00 G protein-coupled receptors in an historical perspective. (*Henri Xhaard*)

Coffee break

10h30 - 12h15 Overview of the G-proteins and GPCR signaling pathways (*Jyrki Kukkonen*)

*Lunch break**

13h15-14h00 Overview of the 7TM family. Origin of classes and subtypes. (*Henri Xhaard*)

Coffee break

14h30-16h15 G protein -effector interactions: lipid-derived second messenger, beta-arrestins and feedback systems (*Raimo Tuominen*)

Tuesday August 24th, 2010.

9h15-10h00 GPCR promiscuity, ligand trafficking (*Jyrki Kukkonen*)

Coffee break.

10h30-12h15 Tutored lecture. GPCR sequence - structure - function relationships. (*Henri Xhaard*)

As part of the lecture, students will be provided with material so that they can examine themselves GPCR sequences and structures on their own laptops. (Having a laptop at the lecture is recommended but not necessary)

*Lunch break**

13h15-14h00 Biophysical methods to study GPCR-ligand interactions (*Henri Xhaard*)

Coffee break.

14h30-15h15 Biophysical methods to study GPCR-ligand interactions (*Henri Xhaard*)

15h30-16h15 High-Throughput Screening in GPCR drug discovery (*Pia Vuorela*)

Wednesday August 25th, 2010.

9h15-10h00 The process of drug discovery (*Antti Poso*)

Coffee break

10h30-11h15 Design for (endo) cannabinoid receptor ligands (*Antti Poso*)

11h30-12h15 Animal models for GPCR drug discovery and development (*Mika Scheinin*)

*Lunch break**

13h15-14h00 Molecular pharmacology of alpha2-adrenoceptor (*Mika Scheinin*)

Coffee break

14h30-16h15 Structure as a tool for GPCR drug discovery (*Veli-Pekka Jaakola*)

* lunches are not included in the course fee.