3rd CAPRI2010 Advanced Laboratory Workshop

Antibody engineering: from murine hybridoma to therapeutics

PROGRAMME

	12.02. Sunday	13.02. Monday	14.02. Tuesday	15.02. Wednesday
9:00 – 9:30		**Welcome address** Stipan Jonjić	Screening for functional single chains – Start *E. coli* culture for induction PCR of VL and VH	DNA isolation of the VH sublibrary
9:30 – 10:30		**John McCafferty** Antibodies from phage display in research and medicine		
10:30 – 11:30		**Thomas Schirrmann** Recombinant antibodies - from generation to application	**Stefan Dübel** Making and using recombinant antibodies	Digestion of the VH sublibrary
11:30 – 12:30		**Marko Dolinar** Design and production of humanized anti-prion single-chain antibody fragments	**Dafne Müller** Bispecific antibodies and bifunctional antibody fusion proteins for targeted cancer immunotherapy	
12:30 – 14:00		**Lunch break**	**Lunch break**	Gelpurification of digested VH sublibrary
14:00 – 15:00		**Antonija Zurunić** How to generate a hybridoma **Alexej Schmidt** How to clone a hybridoma	Gel analysis of VL and VH Screening for functional single chains – IPTG induction of single chain production	
15:00 – 16:00	Arrival	Isolation of lymphocytes from the spleen Fusion with SP2/0 cells	**Alexej Schmidt** How to analyse antibody variable regions via IMGT	Ligation of VH sublibrary with VL
		RNA isolation from splenocytes and hybridomas with Trizol	Purification VH + VL PCR & digested pOPE vector Screening for functional single chains – single chain isolation from periplasmatic space Digestion of PCR products	Transformation in XL1-blue Functional ELISA test with recombinant antigen
16:00 – 18:00		Reverse transcription ON digestion of pOPE vector Screening for functional single chains – Starter *E. coli* culture	Ligation of pOPE with VH Transformation in XL1 blue Plating on LB plates	Sequencing of the functional single chain clones

Talks (venue: Lecture Hall)

Practical work (Center for Proteomics)

Lectures within practical work (venue: CAPRI seminar room)

Breaks (Center for Proteomics)
* coffee and snacks will be available all the time