Biocenter Oulu Virus Core Laboratory organizes a practical course:
"Retrovirus-mediated RNA interference"

Place
Biocenter Oulu Meeting Room 487B, 4th floor of the Main Building of the Medical Campus and the Biocenter Oulu Laboratories of the Main Building of the Medical Campus, University of Oulu, Aapistie 5A, P.O.Box 5000, FIN-90014 Oulu, Finland

Time
15th to 19th October, 2012

Credits
3.0 ECTS

Organisers
Biocenter Oulu Doctoral Programme, Biocenter Oulu Virus Core Laboratory, University of Oulu, P.O. Box 5000, FIN-90014 University of Oulu, Finland

Type of course
A hands-on course on retrovirus-mediated RNA interference technology including general lectures on viral vectors and RNA interference.

Information
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Registration
Registration obligatory. Only 12 participants are accepted. The application with a short description of your research project should be sent to Aki Manninen (via email: aki.manninen@oulu.fi) by 28th of September, 2012. The course is in principle open for everybody, but the preference will be given to Ph.D. students whose projects best benefit from the excercises carried out during the course so please include into your application a short statement why/how the course is expected to influence your own work.

BCO VirusCore Practical course "Retrovirus-mediated RNA interference" COURSE PROGRAM

Time	Mon 15.10.2012		Tue 16.10.2012		Wed 17.10.2012		Thu 18.10.2012		Fri 19.10.2012
9-12	Intro lecture – Course material distribution – Assignment of Journal Club articles for the groups		Groups 1&2: • Medium change • 2nd infection	Groups 3&4: • cDNA synthesis	Groups 1&2: • qPCR • preparing for journal club	Groups 3&4: • 1st virus collection • 3rd infection • antibiotic selection	Group 1&2: 2nd virus collection + 2nd selection (dead cells washed)	Group 3&4: design your own shRNA	Check up of antibiotic selected cells
	Groups 1&2: • Transfection of packaging cells • 1st infection of target cells	Groups 3&4: • RNA extraction	Groups 1&2: • cDNA synthesis	Groups 3&4: • Medium change • 2nd infection					Journal club on selected papers (1 article / group) 15min + discussion Course wrap up
12-13	Lunch		Lunch		Lunch		Lunch		Lunch
13-14	Common lecture (Aki Manninen): Viral vectors		Common lecture (Irina Raykhel): RNAi & applications		Common lecture (Aki Manninen): Designing shRNAs		qPCR analysis of KD efficiencies		
14-17	Groups 3&4: • Transfection of packaging cells • 1st infection of target cells	Groups 1&2: • RNA extraction	*BCO-DP Advanced Course Lecture:* **Juha Klefström** (University of Helsinki): "Deconstructing and reconstructing biological complexity in breast cancer model" *There is a possibility to meet the lecturer after the talk for ~4 students*		Groups 1&2: • 1st virus collection • 3rd infection • antibiotic selection	Groups 3&4: • qPCR • preparing for journal club	Group 1&2: design your own shRNA	Group 3&4: 2nd virus collection + 2nd selection (dead cells washed)	