

Comparative Genomics: from evolution to function (2nd edition)

June 2-6, 2014, Amsterdam, the Netherlands

Time	Room	Activity	Lecturer
Day 1: Monday June 2, 2014: Distant homology and protein domains			<i>Jaap Heringa</i>
09.00 – 09.15	F612	Registration	
09.15 – 10:30	F612	Topics: <i>Divergent and convergent evolution, (multiple) sequence alignment, psiblast, hhsearch, pfam, homology and function, undetected orthology from failure to detect homology, paralogs and function specificity prediction</i>	
10.30 – 11.00		Coffee	
11.00 – 12.00	F612	Discussion preparation	
12.00 – 12.30	F612	Discussion and evaluation	
12.30 – 13.30		Lunch	
13.30 – 17.00	S101 & S103	(Computer) exercises Wrap-ups Coffee break at 15.00	
17.00		Drinks in "De Basket"	
Day 2: Tuesday June 3, 2014: Comparative Interactomics			<i>Jaap Heringa and John van Dam</i>
09.00 – 09.15	C659	Coffee	
09.15 – 10:30	C659	Topics: <i>network alignment, phylogenetic profiles, biogrid, cytoscape, Bayesian data integration, neofunctionalization vs subfunctionalization</i>	
10.30 – 11.00		Coffee	
11.00 – 12.00	C659	Discussion preparation	
12.00 – 12.30	C659	Discussion and evaluation	
12.30 – 13.30		Lunch	
13.30 – 17.00	S101 & S103	Computer exercises Wrap-ups Coffee break at 15.00	
Day 3: Wednesday June 4, 2014: Small scale orthology and large scale databases			<i>Martijn Huynen and Berend Snel</i>
09.00 – 09.15	F612	Coffee	
09.15 – 10:30	F612	Topics: <i>Tree reconciliation, relation between homology and orthology, ensembl compara, COGs, inparalogs vs outparalogs, fusion and fission</i>	
10.30 – 11.00		Coffee	
11.00 – 12.00	F612	Discussion preparation	
12.00 – 12.30	F612	Discussion and evaluation	
12.30 – 13.30		Lunch	
13.30 – 17.00	S101 & S103	Computer exercises Wrap-ups Coffee break at 15.00	

Time	Room	Activity	Lecturer
Day 4: Thursday June 5, 2014: Genome duplications			<i>Berend Snel</i>
09.00 – 09.15	F612	<i>Coffee</i>	
09.15 – 10:30	F612	Topics: <i>Yeast gene order browser, synteny, consequences of genome duplications, timing of duplications, ensembl biomart</i>	
10.30 – 11.00		<i>Coffee</i>	
11.00 – 12.00	F612	Discussion preparation	
12.00 – 12.30	F612	Discussion and evaluation	
12.30 – 13.30		<i>Lunch</i>	
13.30 – 17.00	S101 & S103	Computer exercises Wrap-ups <i>Coffee break at 15.00</i>	
Day 5: Friday June 6, 2014: Finding functional elements in DNA and RNA sequences, Biased gene conversion			<i>Martijn Huynen</i>
09.00 – 09.15	F647	<i>Coffee</i>	
09.15 – 10:30	F647	Topics: <i>Phylogenetic footprinting, (phylogeny aware) gibbs sampling, RNA secondary structure prediction based on sequences and on experimental data, biased gene conversion & positive selection</i>	
10.30 – 11.00		<i>Coffee</i>	
11.00 – 12.00	F647	Discussion preparation	
12.00 – 12.30	F647	Discussion and evaluation	
12.30 – 13.30		<i>Lunch</i>	
13.30 – 17.00	S101 & S103	Computer exercises Wrap-ups <i>Coffee break at 15.00</i>	

This course is being organised by the Netherlands Bioinformatics and Systems Biology Research School (BioSB) and hosted by the VU University Amsterdam.

Course webpage: <http://biosb.nl/education/course-portfolio/comparative-genomics-2014>

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