

3rd Workshop in Cancer Genomics and Bioinformatics

CALENDARIO DE ACTIVIDADES

(Descripción de la actividad, fechas, horas presenciales y no presenciales y Profesores a cargo)

S. Seminarios, PGH: Sala Seminarios Danko Brncic, Programa de Genética Humana, Bloque C, 1° piso, Facultad de Medicina. Independencia 1027.

S. Computación 2: Computation Room 2, 2° piso Escuela de Kinesiología, Facultad de Medicina. Independencia 1027.

Module 1: Cancer Genomics

Date and Place	Description	Teacher
Monday 16/01 9:00 – 16:30 Aud. Julio Cabello	International Symposium in Cancer Genomics and Bioinformatics	
Tuesday 17/01 9:30-10:15 Sala Seminarios PGH	Lecture: Genomics and Medicine History of genomics The Human Genome Project The 1000 Genomes Project	RV
Tuesday 17/01 10:15-11:00 Sala Seminarios PGH	Lecture: Introduction to Cancer Genomics	KM

COFEE BREAK

Tuesday 17/01 11:15-12:00 Sala Seminarios PGH	Lecture: Next generation sequencing Major technologies for NGS Applications Clinical interpretation	RA
Tuesday 17/01 12:00-12:45 Sala Seminarios PGH	Lecture: NGS for diagnosis. Plasma sequencing.	TBA

Tuesday 17/01 14:15-15:45 Sala Seminarios PGH	Lecture: Making Cancer Genome free. The TCGA and other consortia.	Peter Roberts
COFEE BREAK		
Tuesday 17/01 15:45- 17:00 Sala Seminarios PGH	Lecture: Genome in the cloud. Making cancer genome accessible	Gaurav Kaushik, Seven Bridges
Wednesday 18/01 9:00-18:00 Sala Seminarios PGH	Seven Bridges Hands on training	Gaurav Kaushik, Seven Bridges
Thursday 19/01 9:00- 13:00 Sala Seminarios PGH	Seven Bridges Hands on training. Exercises. Tasks.	Gaurav Kaushik, Seven Bridges
Thursday 19/01 14:00-15:45 Sala Seminarios PGH	TP: Exploring Public data bases. Hands-on training on OASIS-genomics, cBioportal, etc.	Peter Roberts
COFEE BREAK		
Thursday 19/01 16:15-18:00 Sala Seminarios PGH	TP: Exploring Public data bases. Hands-on training on OASIS-genomics, cBioportal, etc.	Peter Roberts
Friday 20/01 9:00-13:00 Sala Seminarios PGH	TP: Exploring Public data bases. Exercises. Tasks. Preparing report for evaluation.	Peter Roberts
Friday 20/01 14:00-15:45 Sala Seminarios PGH	Report presentation (tasks). Group grading. (written and oral)	KM, RV, RA, PR
COFEE BREAK		

Friday 20/01 16:00-17:30 Sala Seminarios PGH	Report presentation (tasks). Group grading. (written and oral)	KM, RV, RA, PR
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Module 2: Bioinformatics

Monday 23/01 9:30-13:00 Computer Lab	RNASeq data analysis: Hands-on training Pipeline Alignment, mapping,...	Zhang
Monday 23/01 14:30-17:30 Computer Lab	RNASeq: Hands-on training Differential gene expression Gene isoforms's expression SNP Variants	Zhang
Tuesday 24/01 9:30-13:00 Computer Lab	RNASeq: Hands-on training Data analysis	Zhang
Tuesday 24/01 14:30-17:00 Computer Lab	RNASeq: Hands-on training Visualization using STARtools	Zhang
Wednesday 25/01 9:30-17:00 Computer Lab	RNASeq: Hands-on training Exercises. Tasks. Report Generation	Zhang, RV.
Thursday 26/01 9:30-17:00 Computer Lab	Target Sequencing data analysis using Oncomine™ software (Thermo)	RV
Friday 27/01 9:30-17:00 Computer Lab	Target Sequencing analysis using Oncomine™ software (Thermo) Final Report Generation and presentation.	RV

Module 3: Cancer Translational Genomics Laboratory

Monday 23/01 9:30 -11:15 Lab Genómica del Cáncer	Introduction to the Oncomine Focus Cancer Panel & Ion Torrent sequencing technology Design and workflow	
Monday 23/01 11:30-17:30 Lab Genómica del Cáncer	TP: Cancer genomics laboratory 1 Library preparation	
Tuesday 24/01 9:30-17:30 Lab Genómica del Cáncer	TP: Cancer genomics laboratory 2 Library Preparation	
Wednesday 24/01 9:30-17:30 Lab Genómica del Cáncer	TP: Cancer genomics laboratory 3 Library Pooling and Sequencing	
Thursday 26/01 9:30-17:00 Computer Lab	Target Sequencing data analysis using Oncomine™ software (Thermo)	
Friday 27/01 9:30-17:00 Computer Lab	Target Sequencing analysis using Oncomine™ software (Thermo) Final Report Generation and presentation.	