

Module 2: Cancer genomics data analysis

<p>Sesión 6 17/11 10:00-13:00</p> <p>Sala de Computación</p>	<p>Lecture: Computer science for biologists Bits, bytes, variables, computer architecture, UNIX operative system</p>	R. Verdugo
<p>Sesión 7 17/11 14:30-17:30</p> <p>Sala de Computación</p>	<p>LAB: My first UNIX session Hands-on experience in a UNIX environment. Remote ssh connection, writing a simple program, compiling, scripting.</p>	R. Verdugo
<p>Sesión 8 18/11 10:00-13:00</p> <p>Sala Seminarios PGH</p>	<p>Lecture: NGS data processing Data formats Analysis workflow Software alternatives</p>	O. Harismendy
<p>Sesión 9 18/11 14:30-17:00</p> <p>Sala Seminarios PGH</p>	<p>Lecture: Popular Tools BWA, GATK, FreeBayes, PICARD, VARSCAN, MUTECT, IGV, VCFTOOLS</p>	O. Harismendy
<p>Sesión 10 19/11 10:00-13:00</p> <p>Sala de Computación</p>	<p>LAB: Quality Control in Targeted Sequencing Looking at raw reads in IGV Extracting reads and calculating depth Using R to plot the results</p>	O. Harismendy
<p>Sesión 11 19/11 15:45-18:00</p> <p>Sala de Computación</p>	<p>LAB: Tumor-Normal Comparison 1 Running VarScan for TN comparison Filtering the results Summary statistics</p>	O. Harismendy
<p>Sesión 12 20/11 10:00-12:30</p> <p>Sala de Computación</p>	<p>LAB: Tumor-Normal Comparison 2 Calculating Statistics Using R to plot the results</p>	O. Harismendy
<p>Sesión 13 20/11 14:30-17:00</p> <p>Sala de Computación</p>	<p>Lecture: Variant annotation Prediction of coding mutation effects Databases of known mutations Variant annotation and filtering</p>	O. Harismendy

<p>Sesión 14 23/11 10:00-12:30</p> <p>Sala Seminarios PGH</p>	<p>LAB: Clinical Sequencing Interpretation Variant Annotation</p>	<p>O. Harismendy</p>
<p>Sesión 15 23/11 14:30-17:30</p> <p>Sala de Computación</p>	<p>LAB: Analysis from public datasets Downloading and parsing data from TCGA / ICGC and cBioportal Requesting access to protected data</p>	<p>O. Harismendy</p>
<p>Sesión 16 24/11 9:30-13:00</p> <p>Sala de Seminarios PGH</p>	<p>LAB: Self-guided Preparing presentations and reports</p>	<p>Self-guided</p>
<p>Sesión 17 24/11 14:30-16:00</p> <p>Sala de Seminarios PGH</p>	<p>Evaluation: Students presentations Student groups present results of their sequencing projects.</p>	<p>K. Marcelain R. Armisen R. Verdugo O. Harismendy</p>