

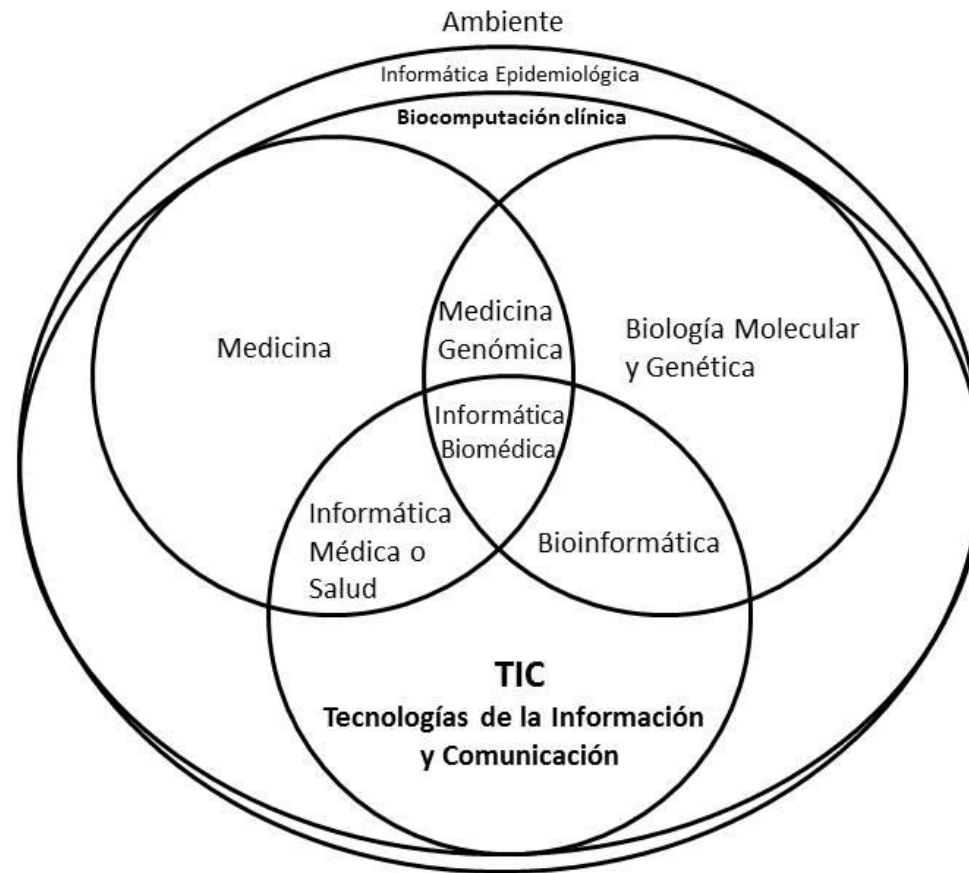


Bioinformática, Medicina Genómica y TIC en Atención de Pacientes de COVID-19

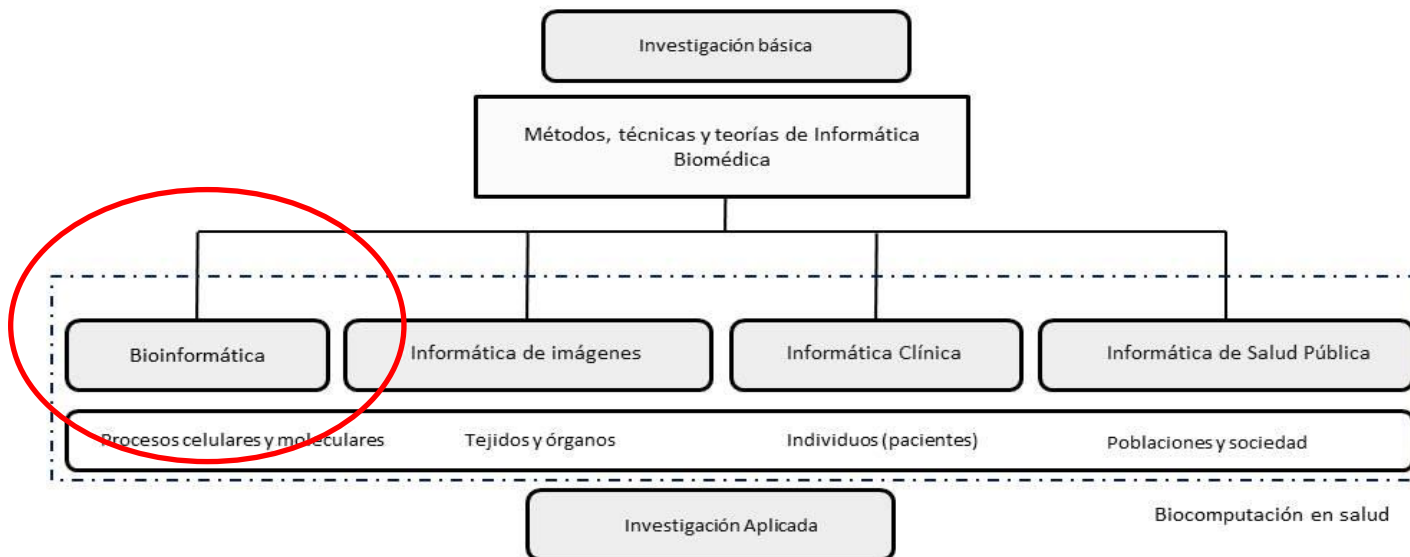
Dr. Allan Orozco
PROSIC

2021

Divisiones



Bioinformática Clínica



Ultrasecuenciadores

The image illustrates a comprehensive bioinformatics pipeline for genomic data analysis. The background features a circular genome map with various tracks showing genomic features, domain annotations (e.g., PIRSF, SMART, PRINTS, Pfam, PROSITE), and variant calls. Overlaid on this are several workflow diagrams and software logos. The top right shows a 'Fastq input' leading to 'Fastx: Fastq2fast' and 'Abyss-pe'. The bottom left shows 'Novoindex' and 'Novoalign' processing an 'Index File'. The center features a large black box containing two images of sequencing equipment: a MinSeq and a HiSeq. The word 'Ultrasecuenciadores' is prominently displayed in the center. The bottom right shows a circular diagram of a genome with various annotations and a 'GATK Unified Genotyper' logo.



Estrategias vrs dimensiones en secuenciación en clínica

Genoma completo

Exoma Dirigido

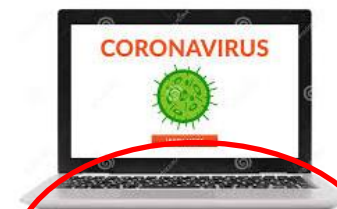
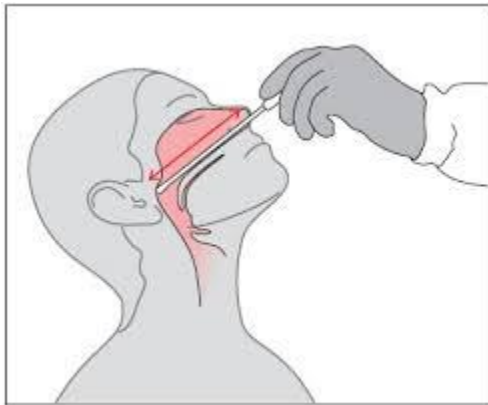
Exoma Clínico

Exoma Completo

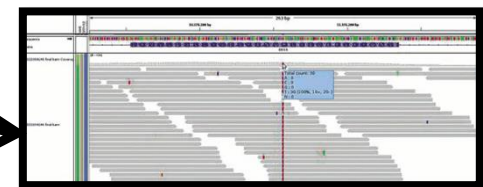
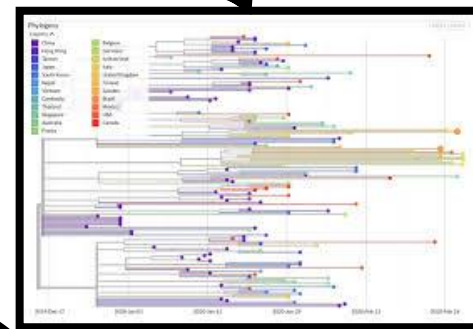
Precisión diagnóstica

Datos Genómicos



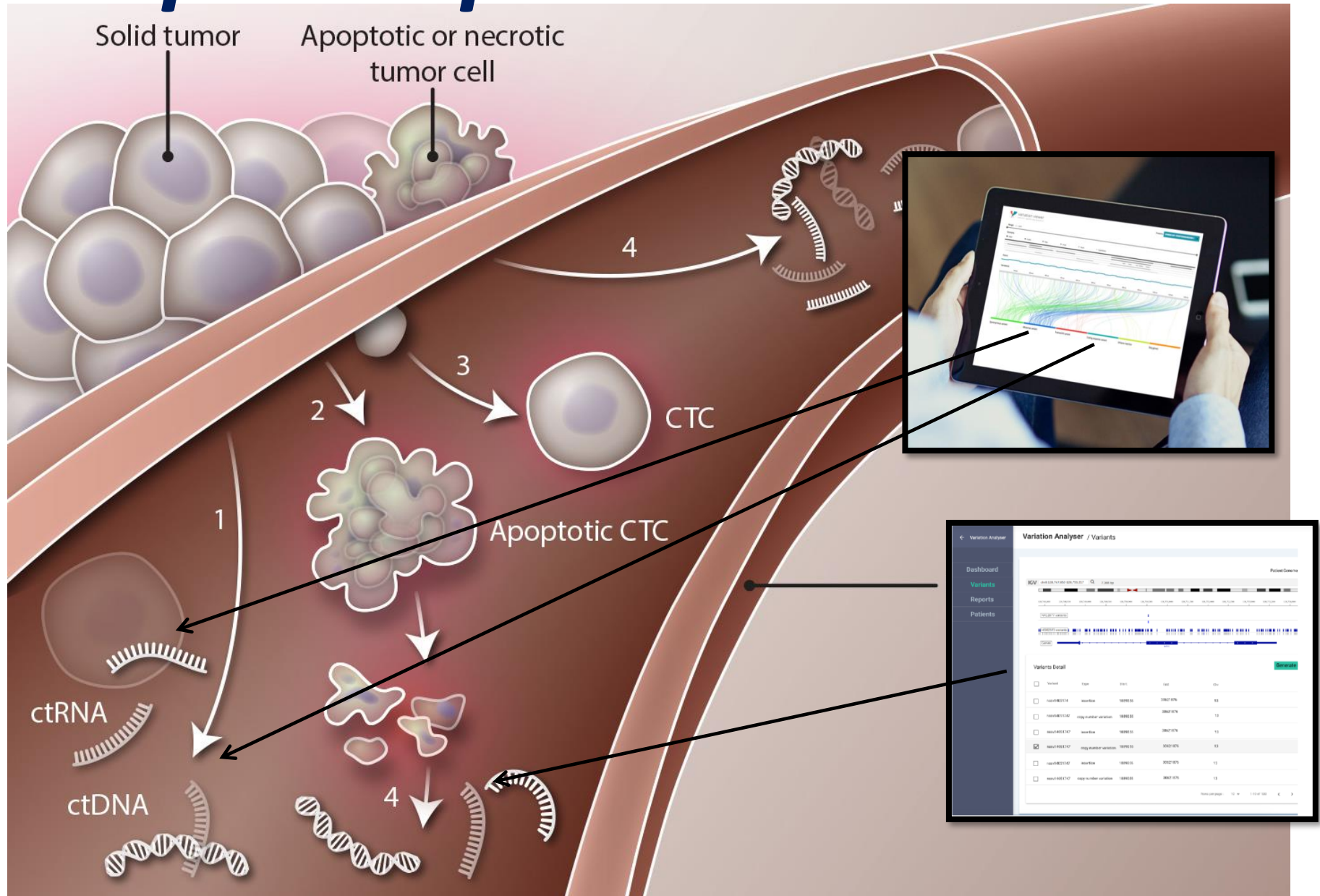


Bioinformática



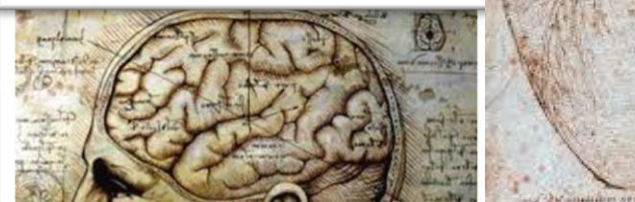
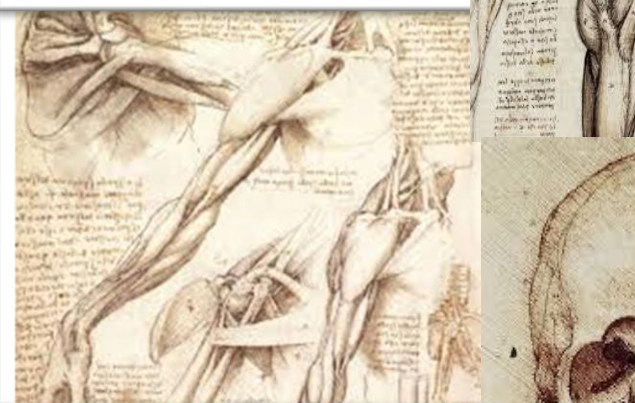
Control Epidemiológico

Biopsia Líquida



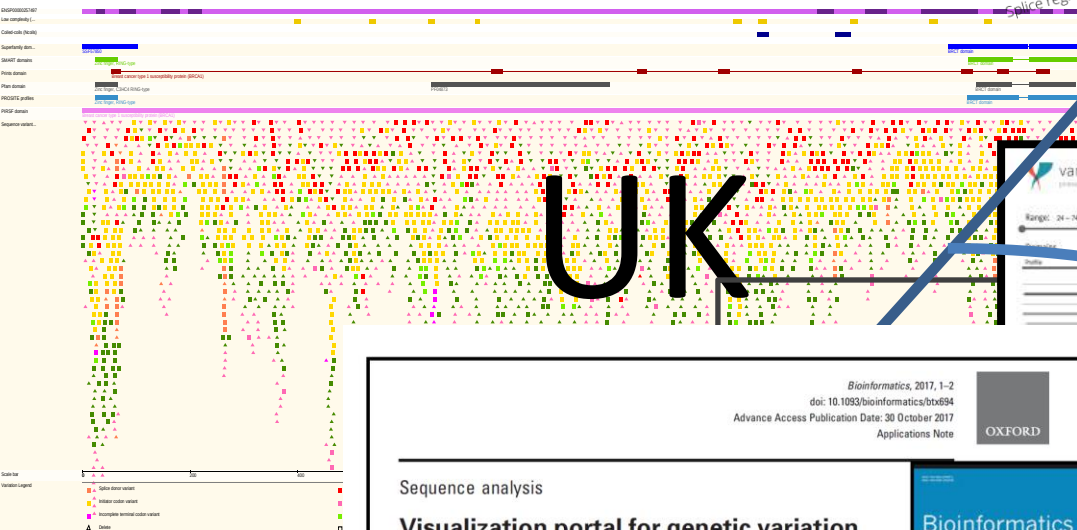
Diseño de software para biomedicina

Da Vinci...

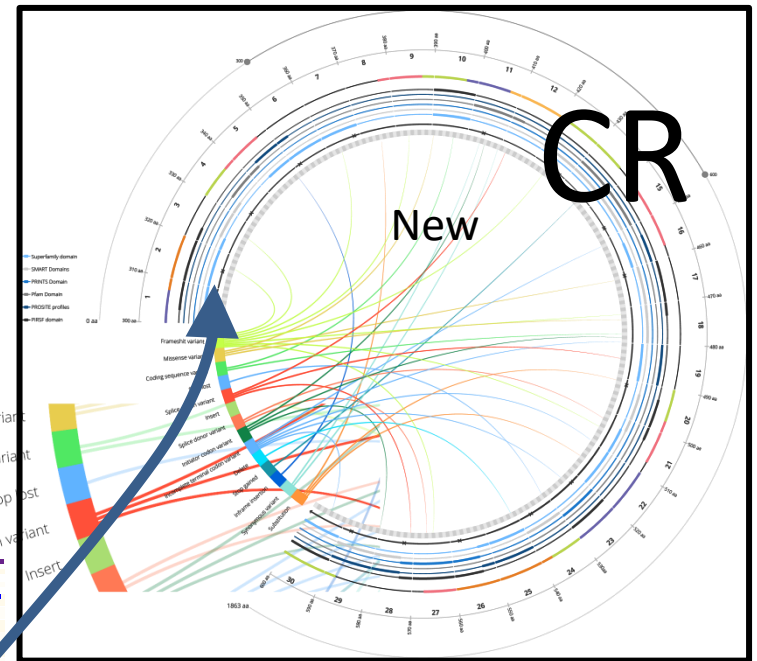


Sistemas genómicos regionales....

Nuevo diseños de sistemas



Ensembl, UK



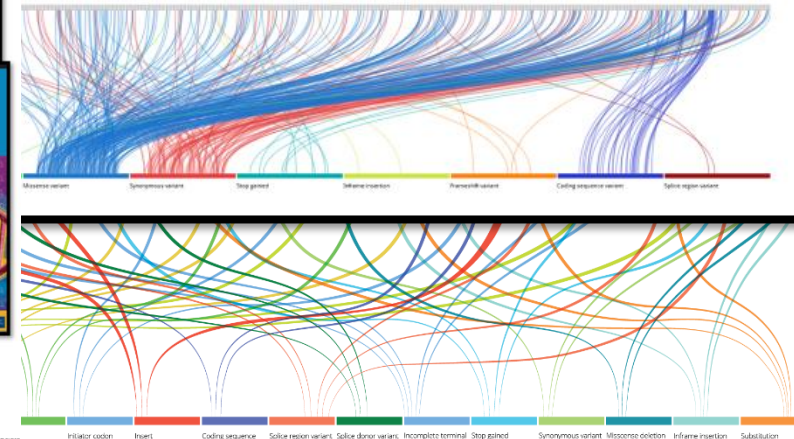
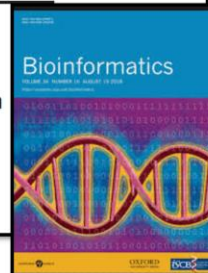
Sequence analysis

Visualization portal for genetic variation (VizGVar): a tool for interactive visualization of SNPs and somatic mutations in exons, genes and protein domains

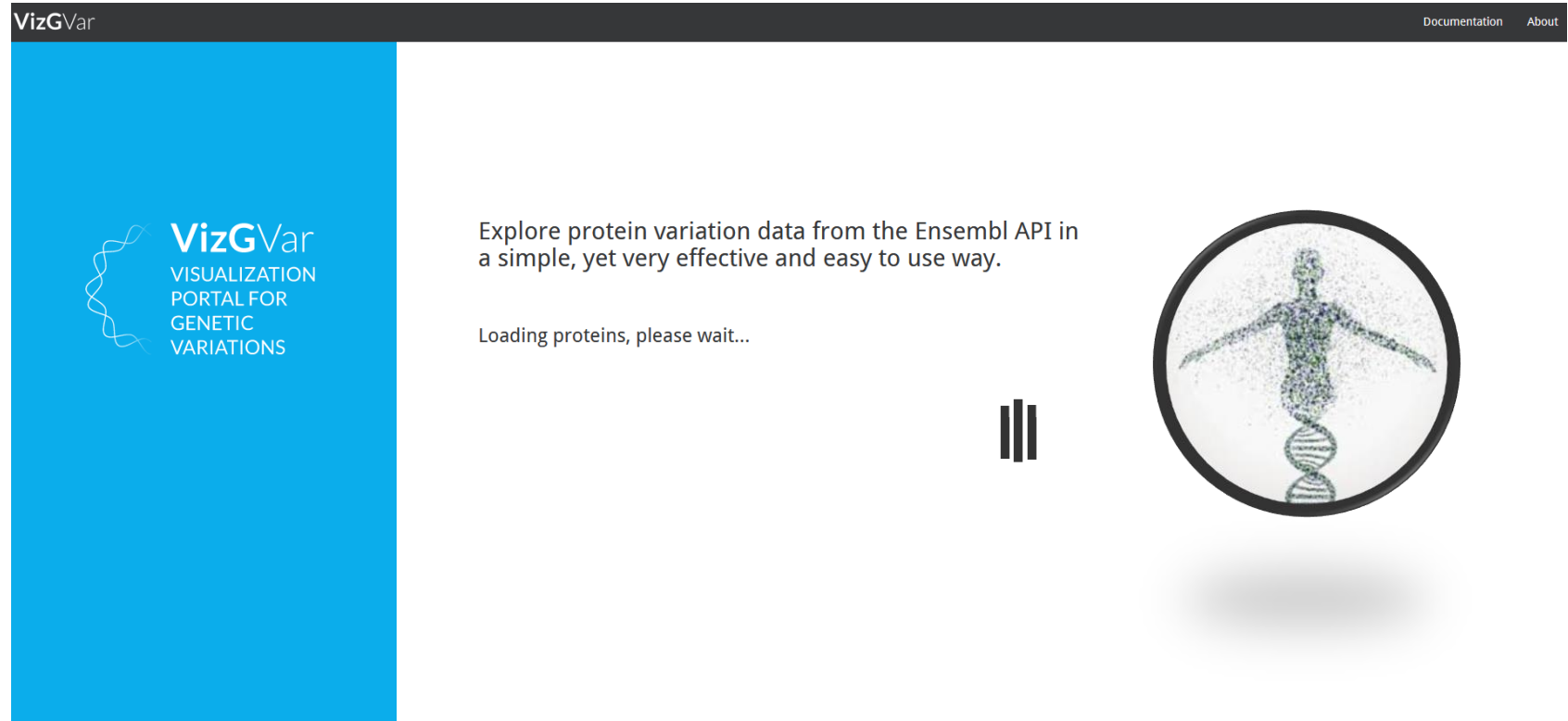
Antonio Solano-Román^{1,2,*}, Verónica Alfaro-Arias¹, Carlos Cruz-Castillo³ and Allan Orozco-Solano^{4,5,*}

Bioinformatics, 2017, 1–2
doi: 10.1093/bioinformatics/btx694
Advance Access Publication Date: 30 October 2017
Applications Note

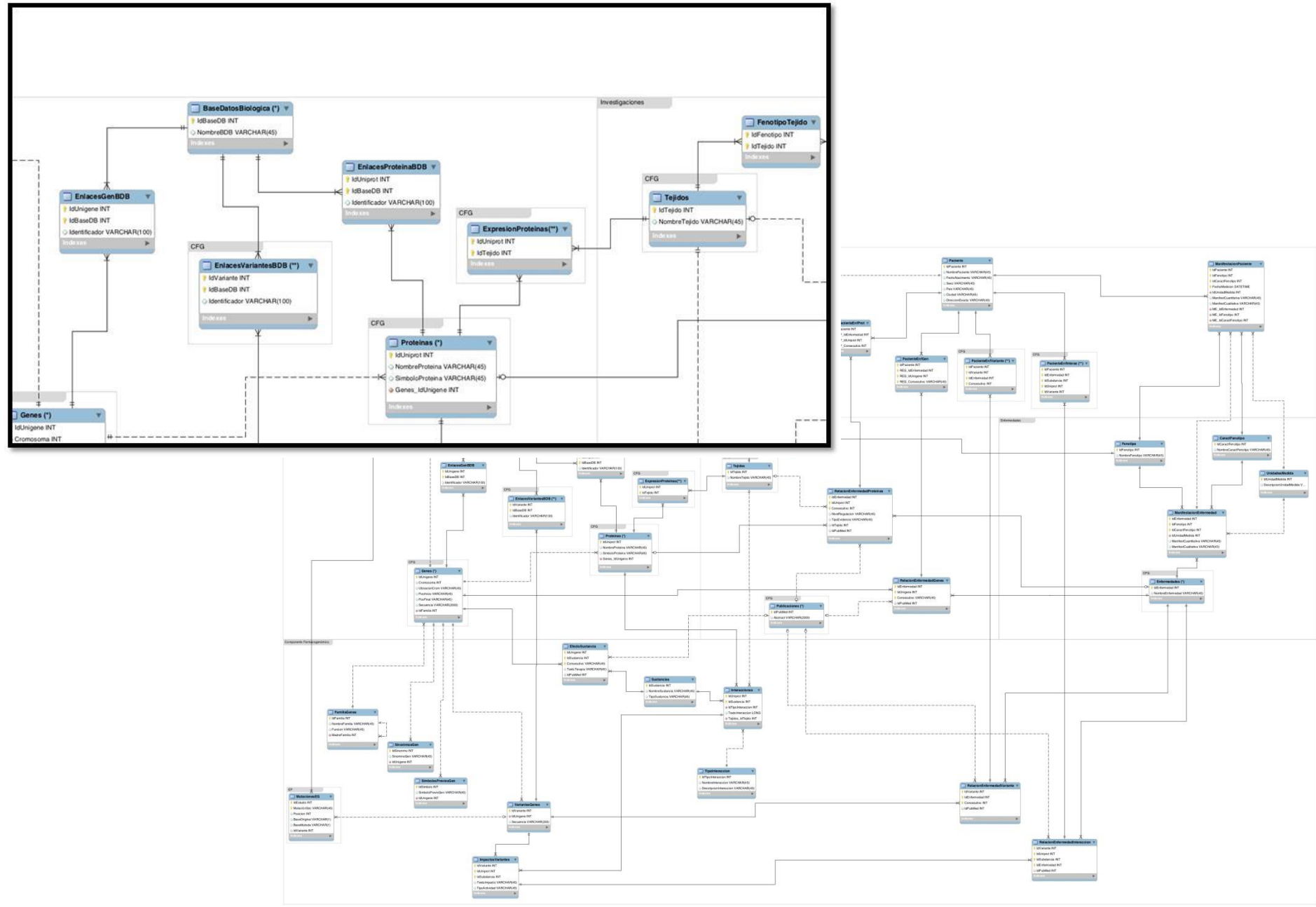
OXFORD



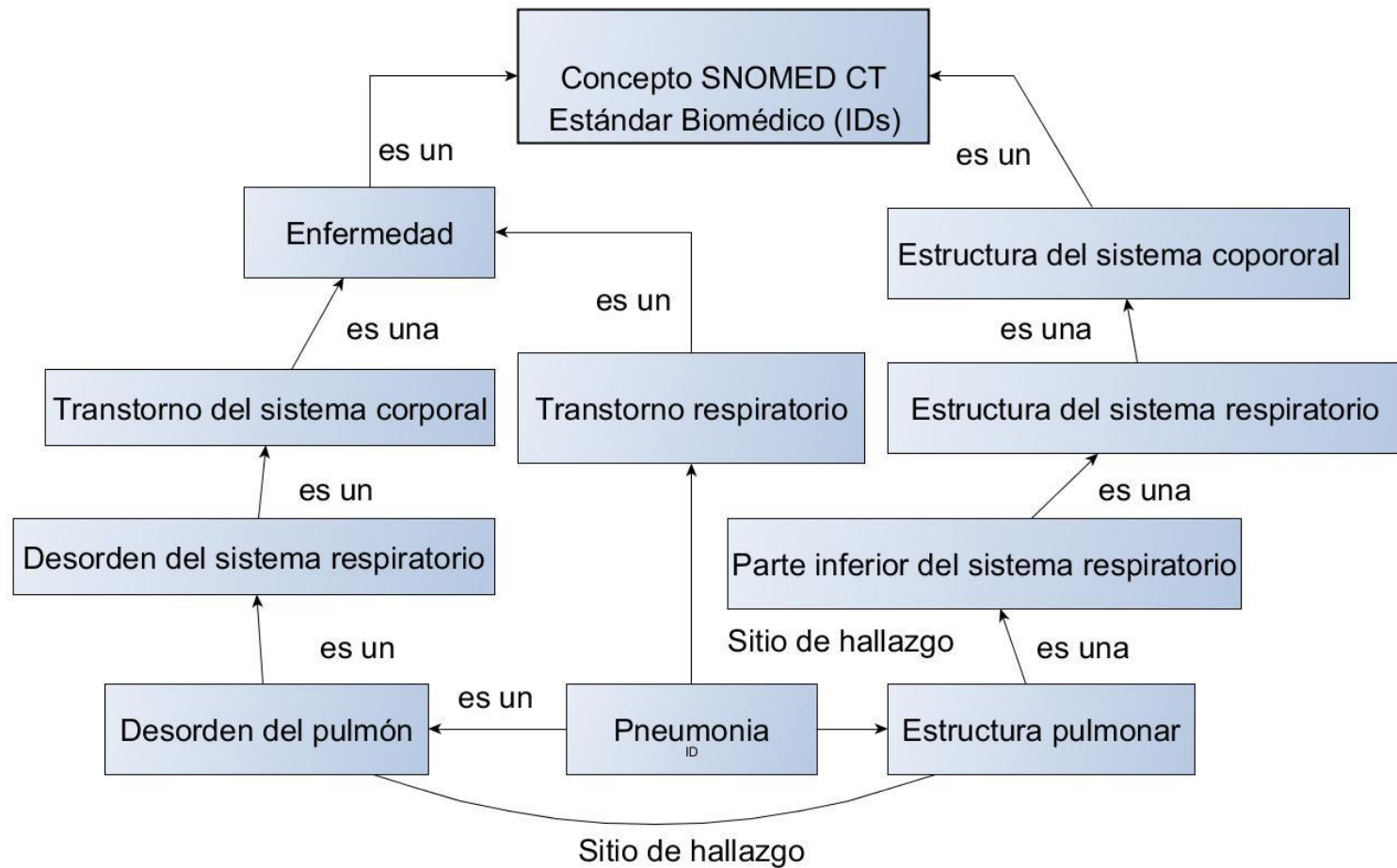
Interfaz de entrada



Bases de datos clínicas



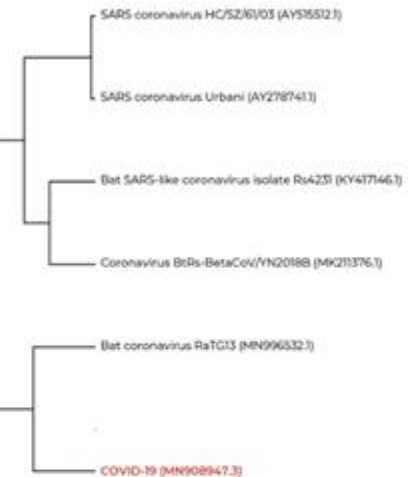
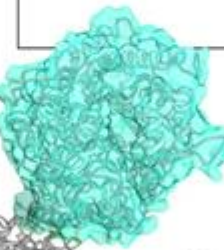
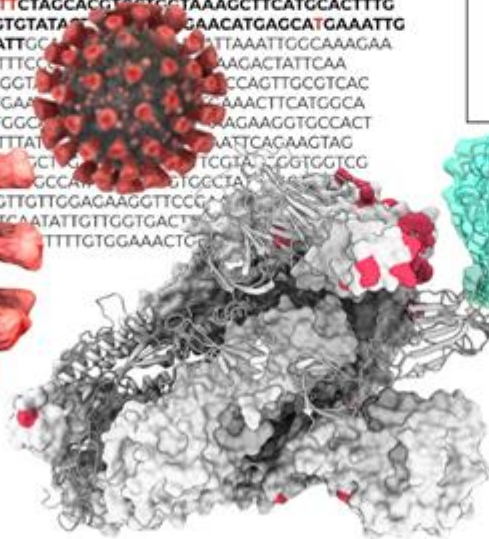
Ontología biomédica



Bioinformática y SARS CoV-2

>MN985325.1 Severe acute respiratory syndrome coronavirus 2 isolate 2019-nCoV/USA-WA1/2020, complete genome

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TAATTACTGTCTGTACAGGACACGAGTAACCTCGTCTATCTTCTGACAGGCTGCTTACGGTTTCGTCGGTG
TTGCACCCGATCATCAGCACATCTAGGTTTCCTCCGGGTGTGACCGAAAGGTAAGATGGAGACCTTGTG
CCTGGTTTCAACGAGAAACACACGCTCCAATCAGTTTCCCTGTTTACAGGTTCCGACGCTGCTGCTAC
GTGGCTTGGAGACTCCGTGGAGGAGGCTTATCAGAGGCACGTCAACATCTTAAAGATGGCACTTGTGG
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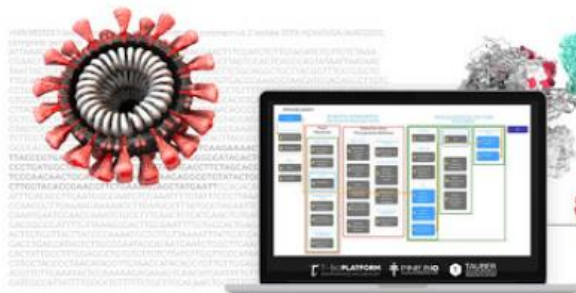


SARS-CoV-2
COVID19

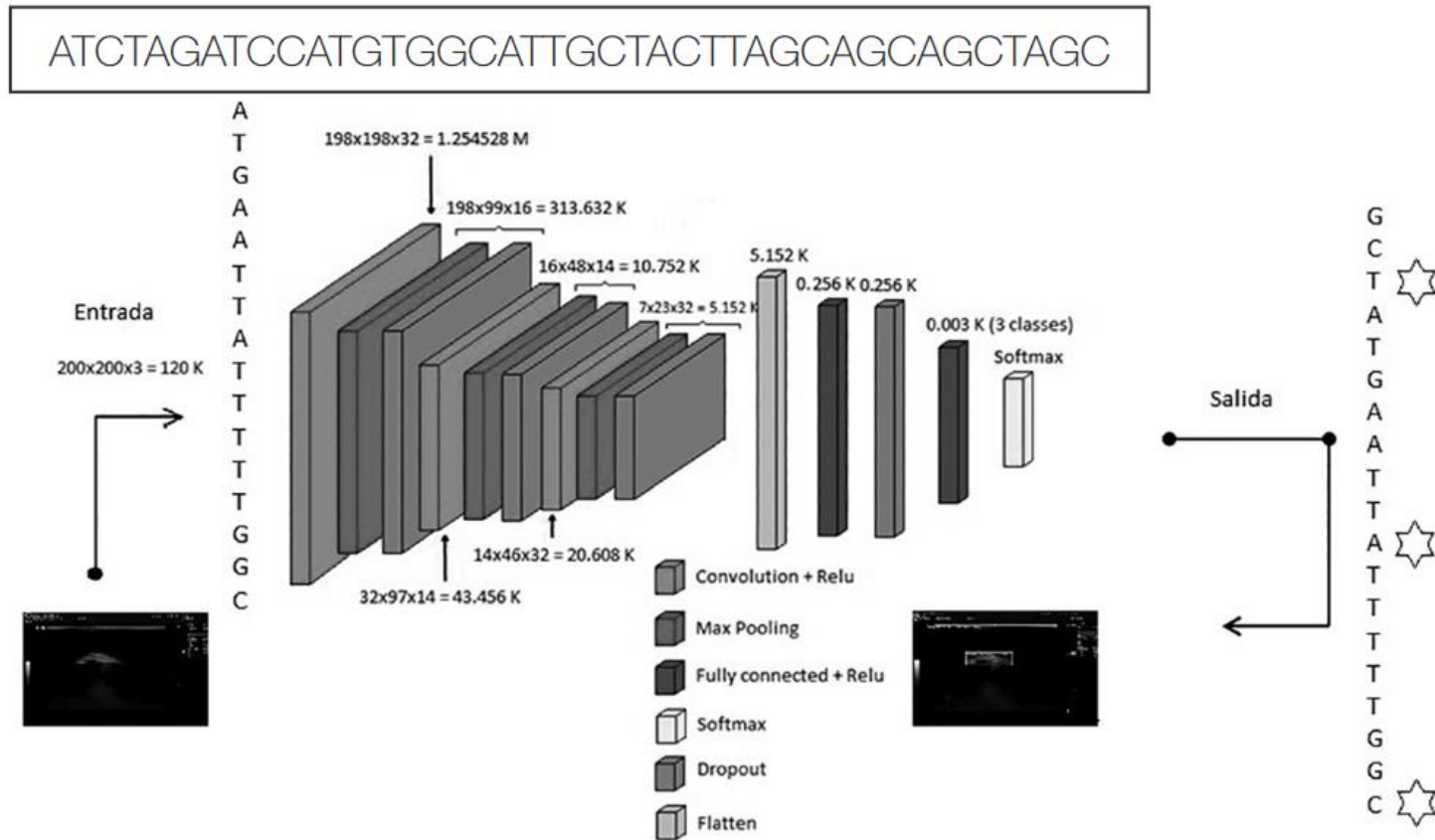
corona virus disease year

COVID19

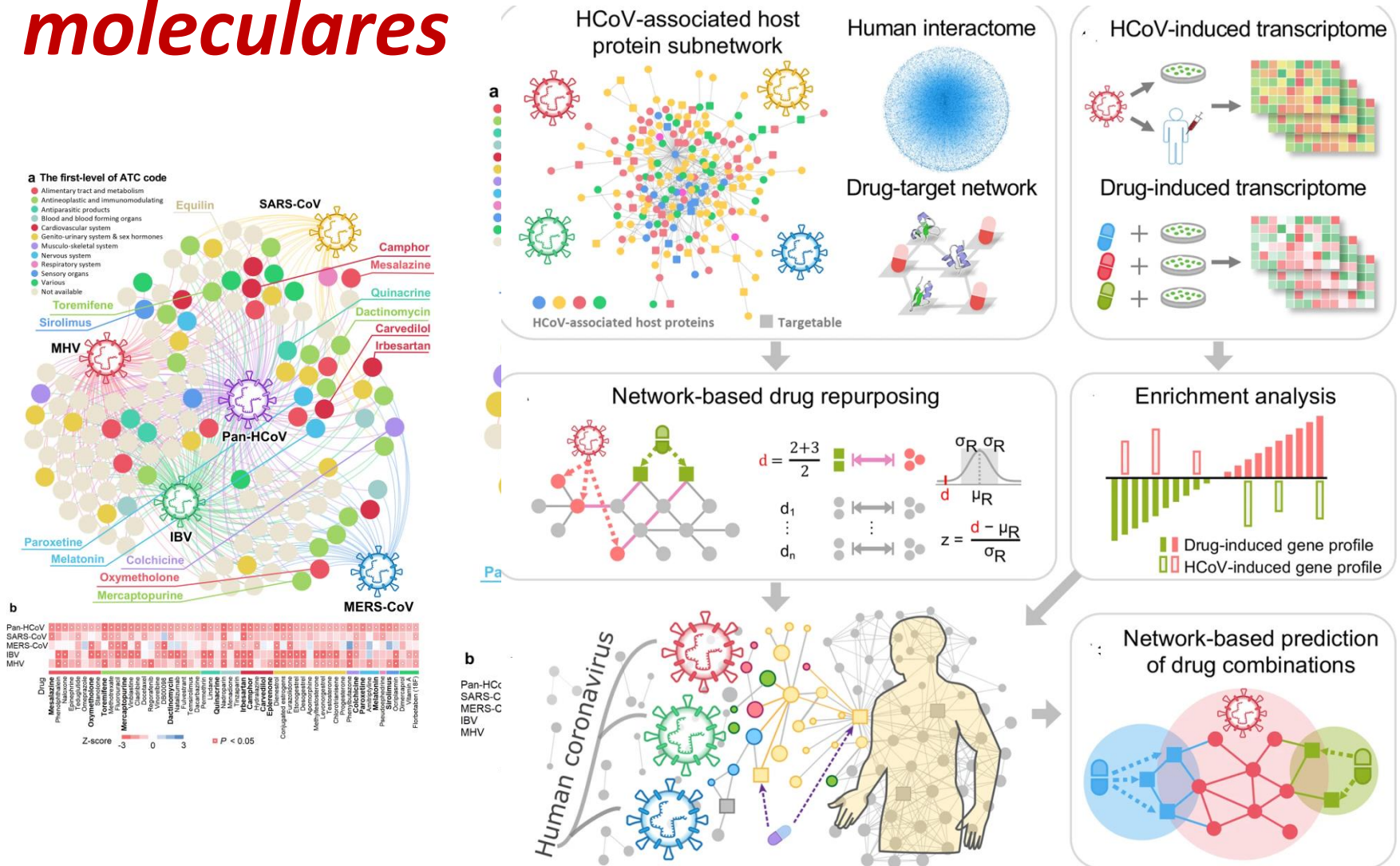
BIOINFORMATICS



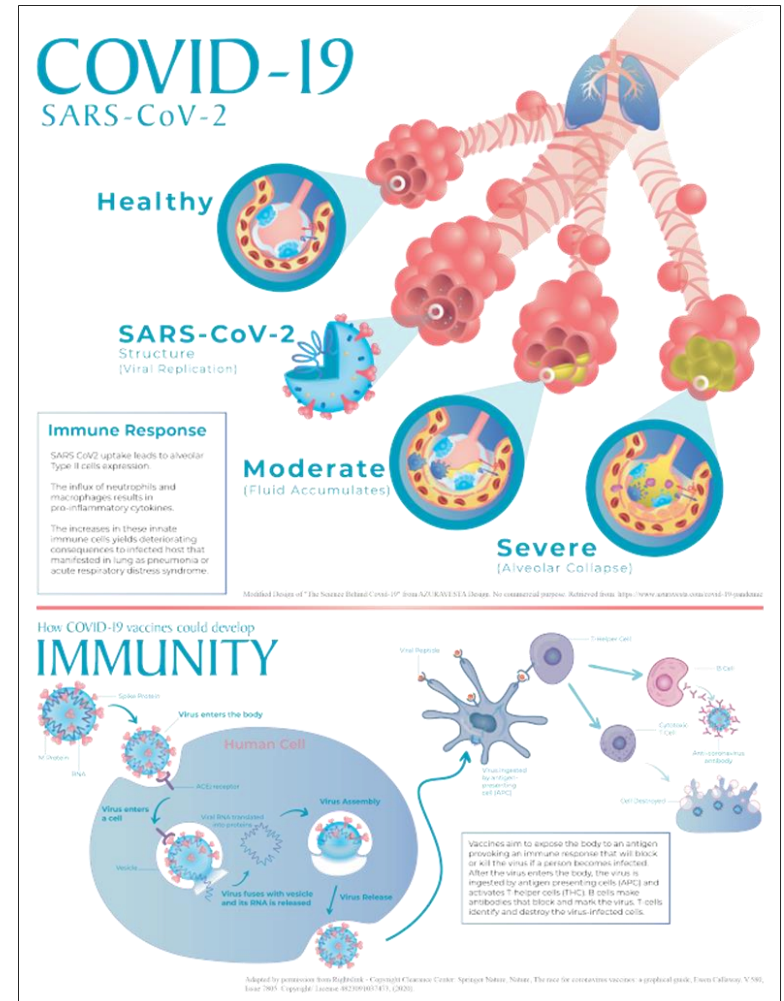
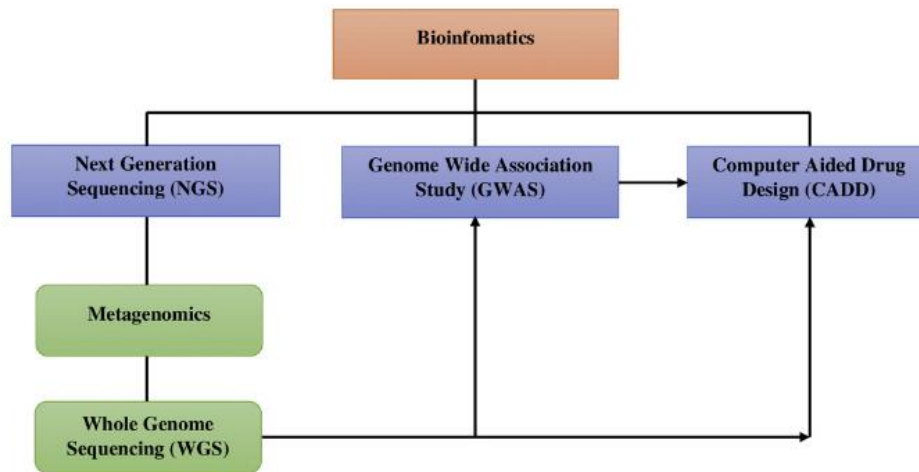
IA con imágenes y datos genéticos



Redes y Sistemas moleculares

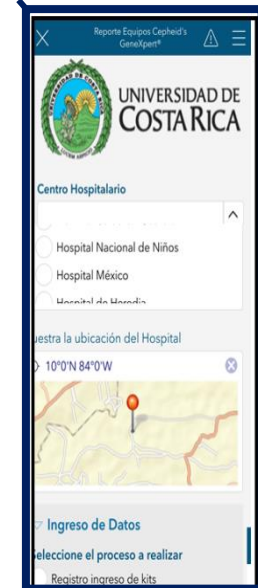
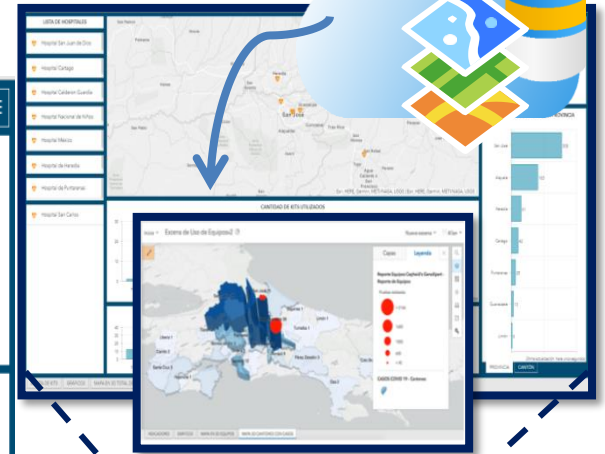
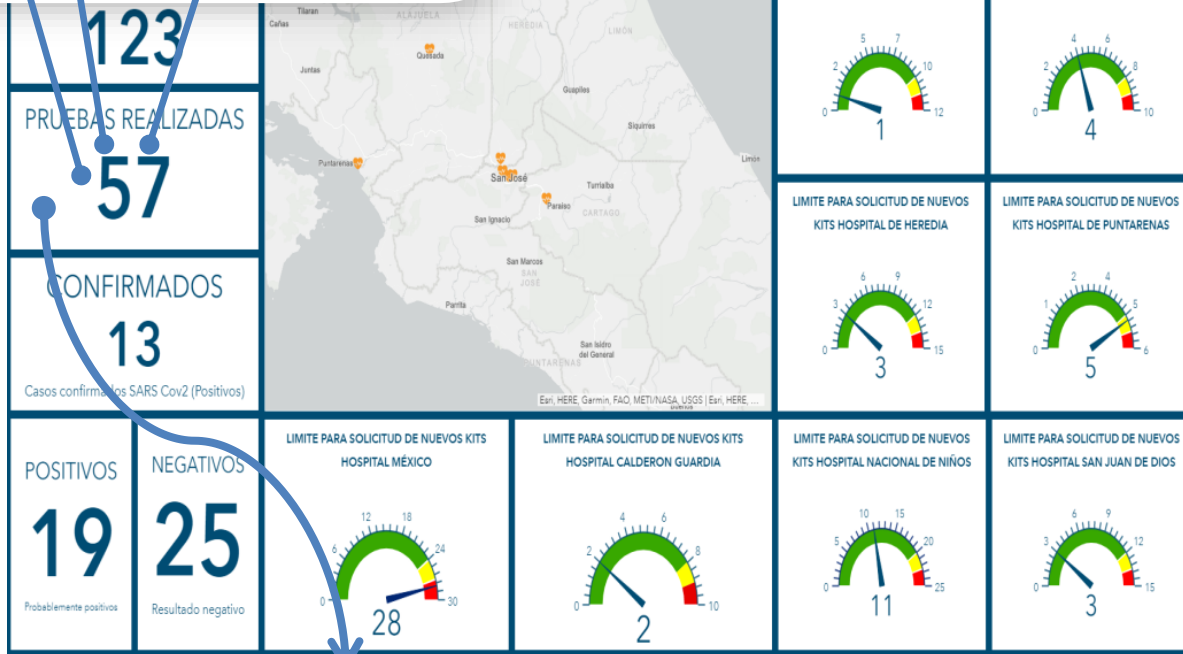
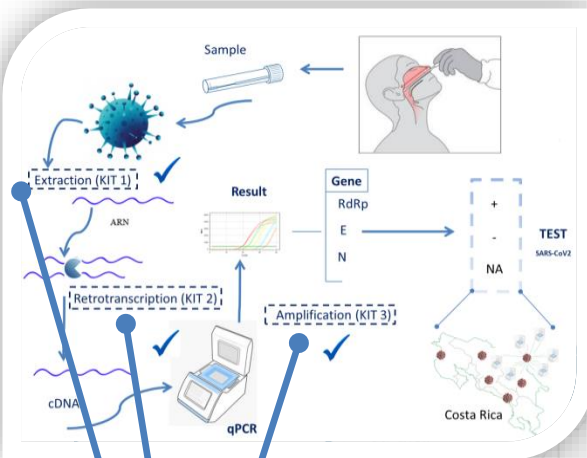
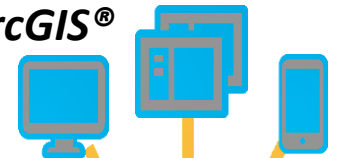


Bioinformática y COVID 19



App y Sistema

ArcGIS®



América Central

Escalas de representación para consumo diario



EQUIPO RT-PCR

Seleccione el tipo de kit

- ☐ Registro ingreso de kits
- ☐ Registro uso de kits

Fecha de Reporte

lunes, 6 de julio de 2020

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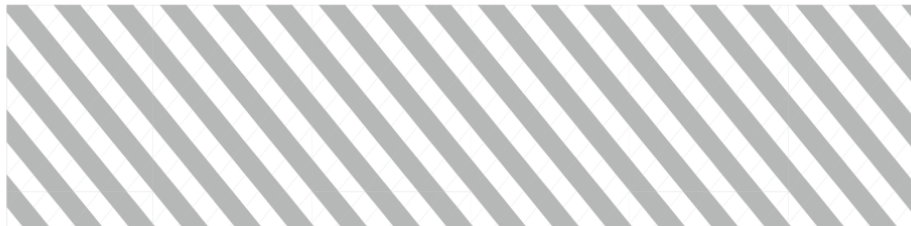
Bioinformática, Genómica y Sistemas Integrados apoyando al paciente COVID -19



White Paper

Genomic Data Policy Framework and Ethical Tensions

June 2020

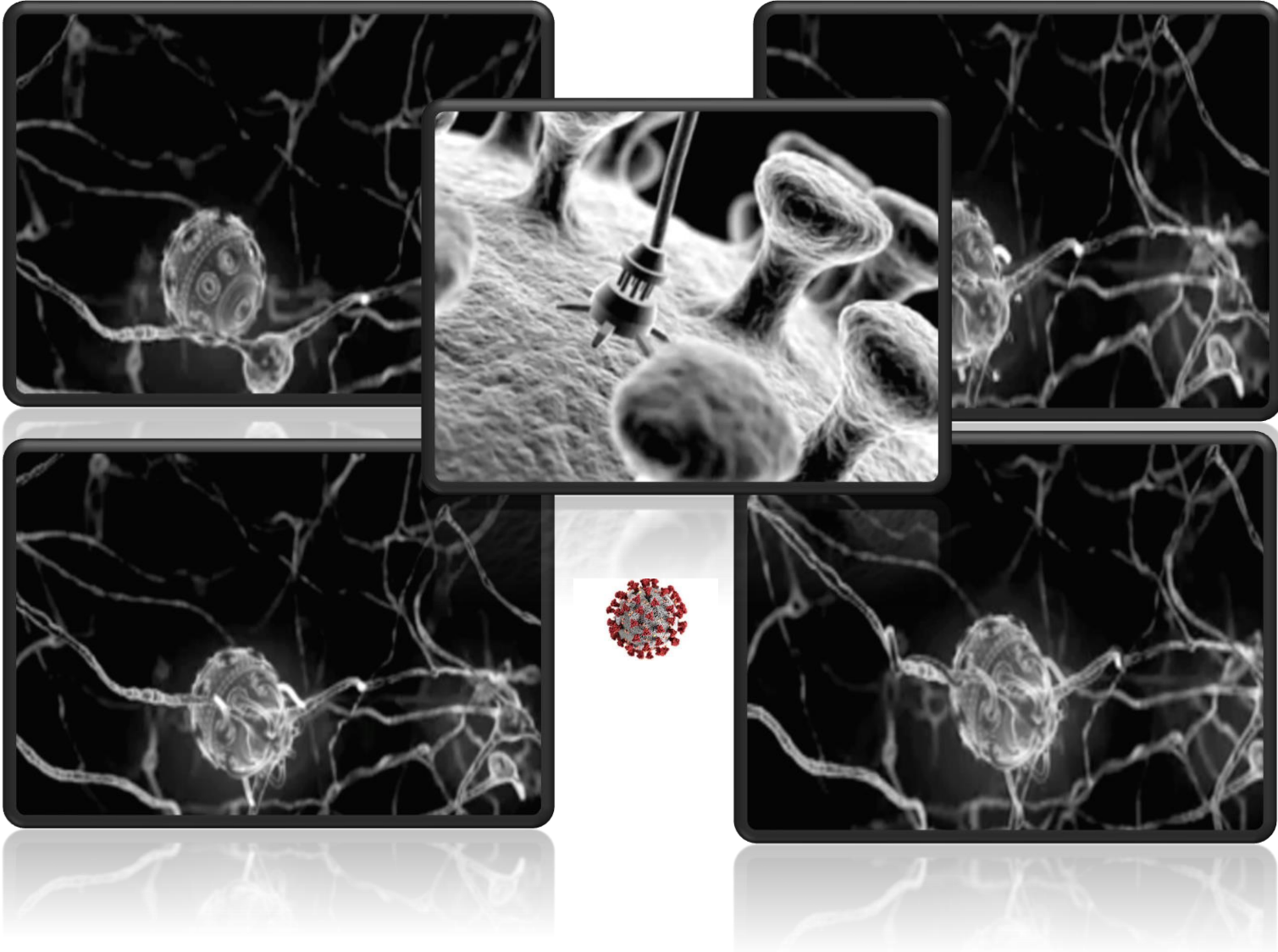


Junio, 2020



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(BioCANET), University of Costa Rica

Nanorobots..... y Bioinformática





Email: allan.orozcosolano@ucr.ac.cr,