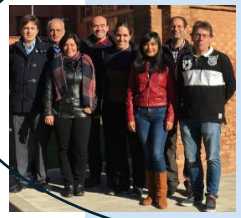
GRBio @ UB

A year or so of
Science and other business

Genetica, Micro i Estadistica

EventoCretacic

RobotIA



SAMANTHA

Food4Brain

PermIntest

NutriFrail

Nutrició,

Ciencies de l'Alimentació i Gastronomia

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Highlights

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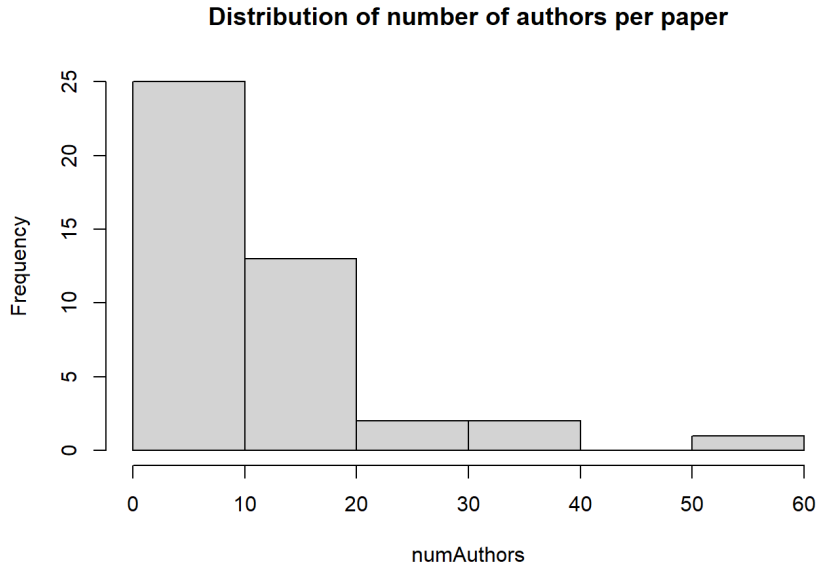
Some Production Statistics



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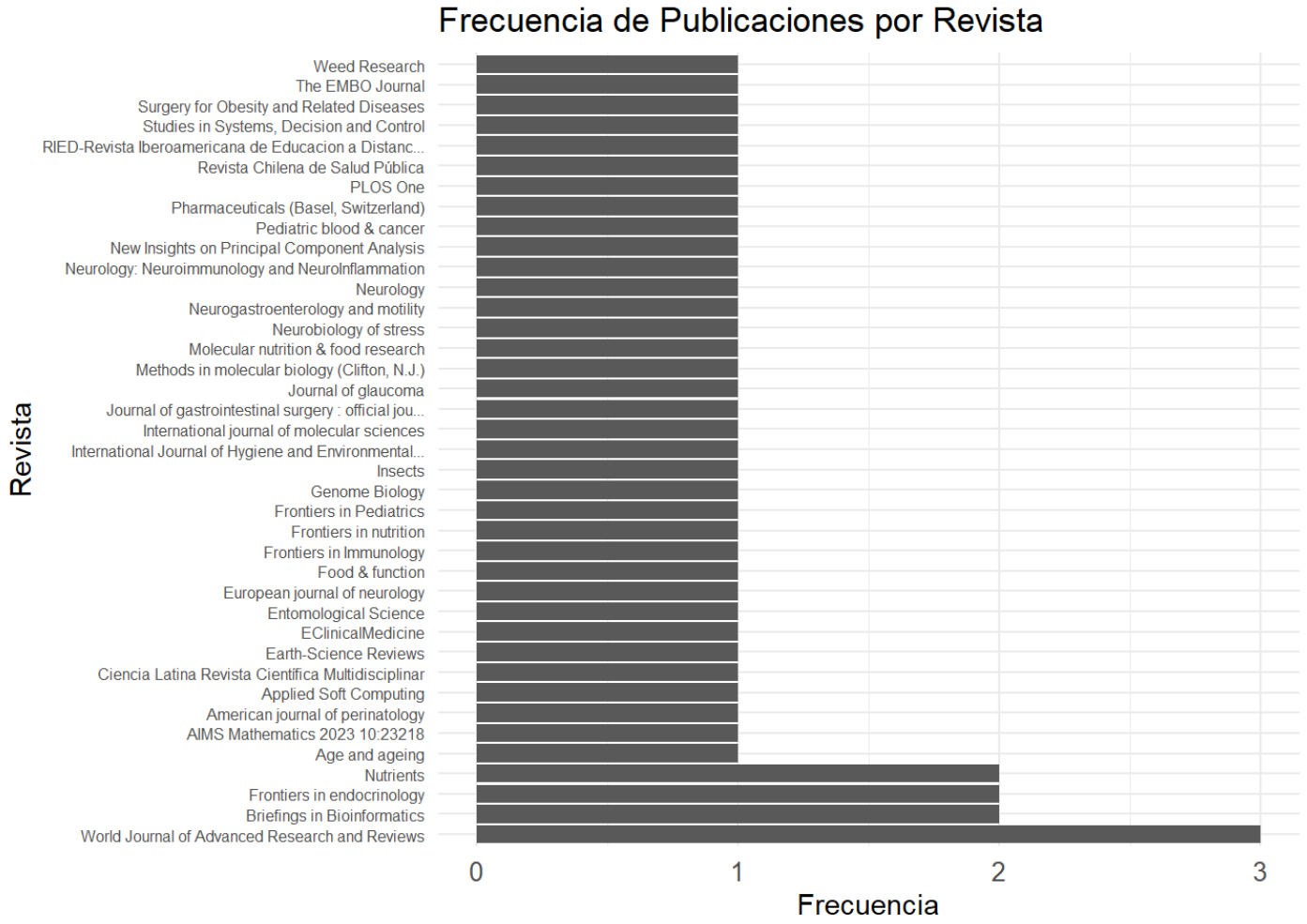
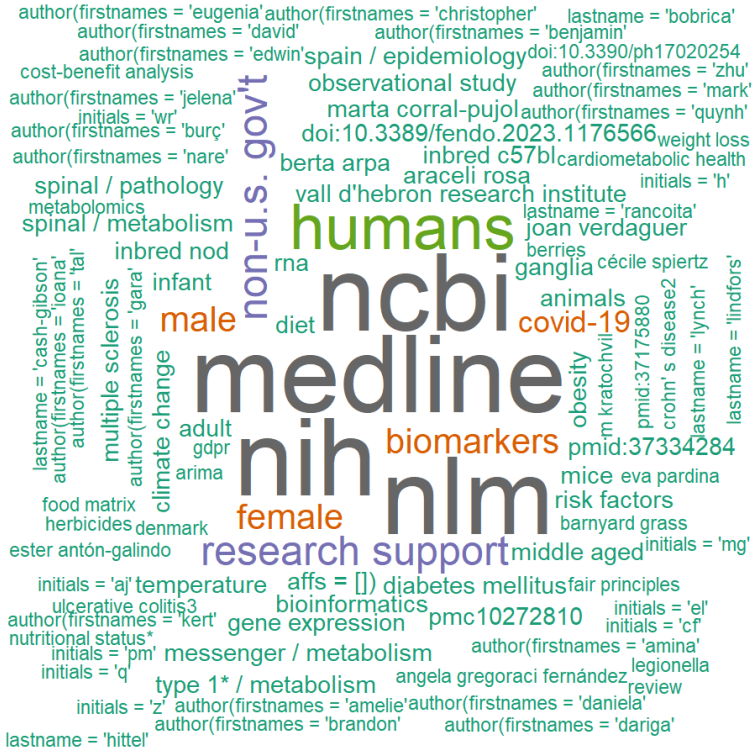
sd	10.66
p0	3.0
p25	4.0
p50	9.0
p75	12.5
p100	59.0



Some Production Statistics



Most used words in KEYWORDS

Most used words in TITLES

Other Scientific Activities

- Congress communications
  - 5 (CA) + 2 (AS) + 2 (AM) + 1 (MB) + 1 (FR)
- Completed PhD Thesis
  - Carolina Millapan Toledo (2023)
  - *Pablo Flores* (a.s. 2024)
- Software
  - goSorensen Bioconductor Package
- Projects
  - 1 new Project granted (A. Monleon co-IP)
  - 1 Project extended
  - 2 projects applied (1 UPC & UPV 1 / 1 UB & UB)

Posgrado (3ª edición) CURSO: 2022/2023

Ciencia de los Datos (Data Science), Aplicaciones en Biología y Medicina con Python y R

PRESENCIAL – 14 semanas

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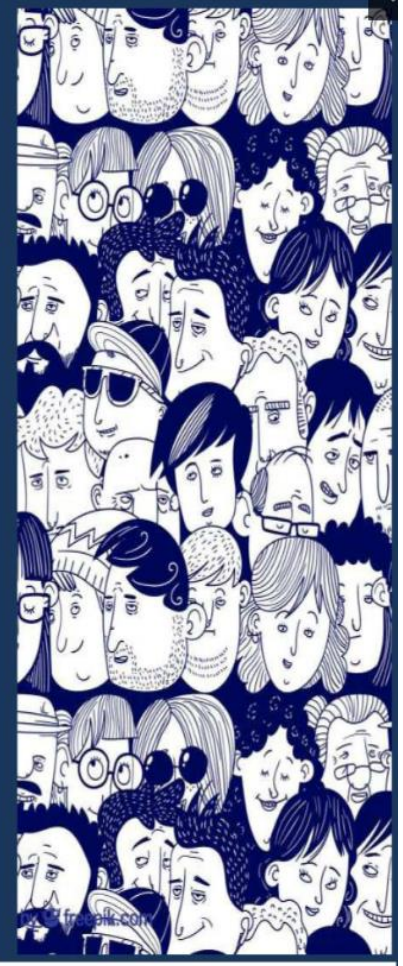

TRES RAZONES PARA ESCOGERLO

- Curso que te da las herramientas y recursos para convertirte en un *Data Scientist* (científico/a de datos) aplicado al ámbito de las biociencias y la medicina.
- Formación especializada en *Data Science* (Ciencia de los Datos), una tendencia actual y con futuro, que cada vez requiere más profesionales especialistas.
- Curso diseñado e impartido por un equipo multidisciplinario de expertos en el ámbito de la *Data Science* y acreditado por la UB.

PROGRAMA RESUMIDO:

1. Programación con lenguajes Python y R, S.O. Linux
2. Análisis estadístico con R (Estadística descriptiva y exploratòria, Diseño de experimentos, Análisis multivariante y Análisis bayesiano)
3. Machine Learning (ML) con Python (Machine Learning , Unsupervised Learning, Supervised Learning) / Clasificación, Generative vs. discriminative models, Validación de modelos (bias variance trade-off and learning curves), Clasificadores (Naive Bayes, KNN, Linear SVM), Ensemble methods (Boosting, Bagging y Random Forests), Natural nets y Deep learning. Aplicación del ML a la genómica y a la proteómica.
4. Trabajo final aplicado: resolución de problema real de Ciencia de los Datos

Seminarios profesionalizadores

Bioinformática y computational molecular biology, Análisis de datos ómicos: metagenomics, metilation, metatranscriptomics (RNAseq), Arquitectura de datos: High-performance computing en las biociencias, Diseños experimentales industriales en biotecnologia, Data analytics en el entorno medico, Análisis de la biodiversidad. Ciencia ciudadana. El proyecto Riu.net, Biomonitorización del ambiente con datos ómicos

Más información, programa del curso, preinscripción y matriculación en:

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9 ECTS

Acreditaciones
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20/2/2023 - 31/5/2023

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Metabolomics Data Analysis Course

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Targeted Metabolomics Data Analysis. Unlocking insights with Machine Learning, AI and Statistics

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Facultat de Farmàcia i Ciències de l'Alimentació

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BIOMARKERS & NUTRIMETABOLOMICS

GRUP DE RECERCA EN ESTADÍSTICA I BIOINFORMÀTICA GRBIO

On this page
- Overview
- Organizers
- Speakers
- Objectives
- Contents
- Target Audience
- Registration, Dates and Number of participants
- Prerrequisites

Overview

Using high-throughput technologies, life science researchers can identify and characterize all the small molecules or metabolites in a given cell, tissue, or organism.

This non-profit course covers a wide range of topics ranging from understanding metabolomics technologies, data collection and analysis, using pathway databases, performing pathway analysis, conducting univariate and multivariate statistics, working with metabolomic databases, and exploring chemical databases.

Hands-on practical tutorials using various data sets and tools will assist participants in learning metabolomics analysis techniques.

Organizers

The course is organized by the Faculty of Biology and Faculty of Pharmacy and Food Sciences of the University of Barcelona, The Metabolics Innovation Center (TMIC) of the University of Alberta and the Frailty and Healthy Ageing-CIBERFES.

- David Wishart, University of Alberta, Canadá
- Alex Sanchez, University of Barcelona, CIBERFES-ISCIII
- Cristina Andres-Lacueva, University of Barcelona, CIBERFES-ISCIII
- Xavier Nogués, IMIM-Hospital del Mar, CIBERFES-ISCIII
- Pedro Abizanda, Servicio de Salud de Castilla la Mancha (SESCAM), CIBERFES-ISCIII
- Anna Guadall, University of Barcelona
- Miriam Martínez Huélamo, University of Barcelona, CIBERFES-ISCIII

Speakers

The course will be taught by professors:

- David Wishart (University of Alberta, Canada),
- Alex Sanchez-Pla (University of Barcelona, Spain)
- Xavier Nogués (Hospital del Mar, Spain)
- Cristina Andrés-Lacueva ((University of Barcelona, Spain)