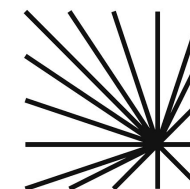




**XI RETREAT
GRBIO 2026
Vilanova i la Geltrú
Juliol 1-2, 2026**



GRBIO
Biostatistics and
Bioinformatics

Organigrama GRBIO

MANAGEMENT



WEB MANAGEMENT



GRBIO DIVULGA



SEMINARS



COMMUNITY MANAGER





IRIS: Institute for Research and Innovation in Health by UPC/Institut de Recerca i Innovació en Salut

IRIS is a health research institute of the Universitat Politècnica de Catalunya – BarcelonaTech – UPC, driving cutting-edge research to address major health challenges. We transform scientific knowledge into tangible solutions that improve people's health and the healthcare system.

Board Members: Josep M Font, Clara Prats, Carles Mas-Moruno, Manel Gonzalez

GRBIO Members: Lupe, Erik, Klaus, Dani, Núria, Marta, JMireia, Jordi C i PhD students

12 research groups



Research areas:

- **Advanced Medical Diagnosis and Treatment**
- **Intelligent Assistance and Rehabilitation**
- **Medical Materials and Engineering**
- **Data Science Applied to Health** *We transform biomedical data into knowledge to improve research and healthcare.*

Biostatistics and Bioinformatics: *We analyze large volumes of biomedical data to better understand diseases, treatments, and health patterns.*

Computational Biology and Complex Systems: *We simulate and analyze complex biological phenomena, such as cellular system functioning, to better understand living systems and make predictions.*

Neurological Computing and Pattern Recognition: *We develop models to interpret neural processes and improve medical image analysis.*

Applied Artificial Intelligence: *Integration of diverse data sources for more accurate predictions, with interpretable models that generate clinical trust*

La recerca que cura: UPC, tecnologia i la salut del futur / II Jornada anual de l'IRIS,

16 de juliol, de 9:30 h a 14:00 h, a l'ESEIAAT (UPC Terrassa).

Impulsada pel Rectorat de la UPC i organitzada conjuntament per l'IRIS, l'ESEIAAT, l'INTEXTER i la FOOT, vol ser un punt de trobada per donar visibilitat a la recerca que fem en tecnologia i salut i afavorir noves connexions entre investigadors, professionals sanitaris i empreses.

Al llarg del matí hi haurà presentacions de projectes de recerca, experiències de transferència de tecnologia, la final dels **Premis PhD-IRIS en Tecnologia i Salut**, i una taula rodona sobre els nous perfils professionals que requerirà la salut del futur.

Podeu consultar el **programa complet** i fer la **inscripció gratuïta** en aquest enllaç: <https://eseiaat.upc.edu/ca/jornada-salut>

XARTEC SALUT

- És la Xarxa de Tecnologies de la Salut de Catalunya, liderada per la Universitat Politècnica de Catalunya (UPC) i cofinançada per fons europeus i la Generalitat.
- Xarxa formada per **81 grups de recerca** que pertanyen a 23 institucions diferents (entre universitats, hospitals i centres tecnològics de Catalunya).
- **Objectiu principal:** Connectar grups de recerca, hospitals i empreses per accelerar la transferència tecnològica en l'àmbit de la salut.
- **El motor:** Actua com un dinamitzador per convertir la recerca científica en solucions reals que arribin al mercat i als pacients.
- **Beneficis**
 - Finançament i Ajuts: Accés prioritari a programes de valorització, comercialització i ajuts econòmics per a projectes de transferència (com la validació de tecnologies).
 - Mentoria i Mentoring Expert: Assessorament especialitzat en models de negoci, patents, propietat intel·lectual i regulació sanitària (marcatge CE, FDA).
 - Visibilitat: Aparador davant de fons de capital risc, inversors i grans empreses del sector Lifesciences.
 - Creació de Spin-offs: Suport integral per a la creació d'empreses derivades de la recerca universitària.
 - **Per als membres del GRBio:**
 - Sinergies Multidisciplinars (El "Matchmaking")
 - Formació Especialitzada: Accés a tallers gratuïts de transferència de tecnologia i empenedoria

GRBIO DIVULGA 25-26

Coordina: Conxita Arenas/Francesc Oliva

- **Infografies:** Mireia Besalú i Jordi Ocaña
- **Llampecs:** Jordi Cortés i Cristian Tebé
- **Formació en secundària:**
 - **StatWars:** Núria Pérez
 - **Per què serveix l'Estadística:** Conxita i Lupe
- **Efemérides de la Ciència:** Núria



COMMUNITY MANAGER 25-26

Coordina: Dani Fernández

- **Newsletter:** Marta Bofill i Arnau Gómez.
- **Newsletter GRBIO Friends:** Arnau Gómez
- **Linkedin:** Natàlia
- **Bluesky:** Pavla
- **Difusió** (Notes de premsa, contactes, ...): Tot@s



WEB 25-26

Coordina: Jordi Cortés

- **Plana web** (seminaris, actualitzacions): Jordi Cortés i Arnau Gómez
- **Manteniment, dominis:** Jordi Cortés
- **ORLEANS + Servidor:** Jordi Cortés
- **UPCNET:** Lupe
- **Github GRBIO + Repositoris:** <https://github.com/GRBio>

MANAGEMENT i CÀRRECS

Coordinadors GRBIO : Lupe, Klaus, Conxita, Dani

Càrrecs de representació del GRBIO (o a les Universitats)

- Secretària del Departament de Genètica, Microbiologia i Estadística (UB): **Conxita**
- Cap de secció (de la secció del Campus Nord del DEIO): **Klaus**
- Cap de secció (de la secció del Campus Terrassa del DEIO): **Dani**
- Director de la Summer School del MESIO UPC-UB: **Klaus**
- UPC: Unite!: Community 9: Strategic outreach, dissemination and impact: **Dani**
- Sotsdirectora de relacions amb l'educació pre-universitària i la societat de l'ICE: **Mireia**

Consells d'Estudis i Comissions Acadèmiques

- ORGMEIO UPC-UB: **Klaus**
- Grau d'Estadística: **Jordi**
- Grau de Matemàtiques: **Mireia**
- Grau en Ciències Biomèdiques: **Conxita**
- Avaluació Acadèmica DEIO: **Dani**
- CCAA Enginyeria en Tecnologies i Vehicles Aeroespacials (ESEIAAT): **Dani**
- Membre de la comissió permanent i de la junta d' ESEIAAT: **Dani**
- Comissió Acadèmica Fac Biologia: **Conxita i Cesc**
- Junta FME: **Mireia i Lupe**
- Grau d'Enginyeria Informàtica (CACFINAL): **Jordi**
- Junta EPSEB : **Carles**

Comissions de Doctorat o Recerca

- Doctorat EIO-UPC: **Dani**

RETREATS

- RETREATS I to VIII (2015 – 2023): Lupe
- RETREAT IX (2024): Jordi-Lupe
- RETREAT X (2025): Dani
- RETREAT XI (2026): Núria
- RETREAT XII (2027): 

TESIS Doctorals en 25-26

- Laia Egea Cortés, Ph.D. in Statistics. October 2025
Victoria University of Wellington, New Zealand
Development and assessment of the partial ordered stereotype model
Supervisors: Richard Arnold and **Dani Fernández**
- Verónica Royano Garcia. Desembre 2025
Programa de doctorat: Construction Engineering, UPC
A Function-Oriented Assessment Methodology (FOAM) for life-cycle monitoring of building functional condition
Supervisors: **Carles Serrat** i Jacek Rapinski
Nota: Excel·lent Cum Laude

TESIS Doctorals en marxa

#	Doctarand/a	Directors/es
1	Andrea Toloba	Guadalupe Gómez, Klaus Langohr
2	Leire Garmendia	Irantzu Barrio, Guadalupe Gómez
3	Pau Esteve	Núria Pérez, Guadalupe Gómez, Jimena Fernández
4	Kinza Tahir*	Núria Pérez, Laura Tió
5	Nora Amama Ben Hassun	Daniel Fernández, Jordi Cortés
6	Pavla Krotká	Marta Bofill, Martin Posch
7	Maria Lee	Marta Bofill, Werner Brannath
8	Liukuan Yu	Daniel Fernández, Jordi Cortés
9	João Carmezim	Cristian Tebé Mireia Besalú, Guadalupe Gómez,
10	Alfons Freixes	Juan Angel Alejandro, Carles Serrat
11	Eloi Climent	Lluís Belanche i Carles Serrat

Fi de la tutoria Abril de 2026

Papers 2025-26

Title	Date	Participants	Journal
On the inclusion of non-concurrent controls in platform trials with an interim analysis	18/5/2026	Krotka, Pavla ;Posch, Martin; Bofill Roig, Marta	Statistics in medicine
Identifying extreme European parties? ideological positioning across countries	27/4/2026	Fernández, Daniel ;Manisera, Marica;Zuccolotto, Paola	Statistics and public policy (Philadelphia, Pa.)
Identifying weekly physical and physiological profiles in professional basketball using heart rate variability and training load clustering	17/4/2026	Olmos, Marc;Caparros, Toni;Olmos, Victor;Sansone, PierPaolo; Fernández, Daniel ;Casals Toquero, Martí	Research quarterly for exercise and sport
Regression models with interval-censored variables	9/3/2026	Gomez Melis, Guadalupe ;Oller Piqué, Ramón; Langohr, Klaus	Annual review of statistics and its application
Dietary patterns and lifestyle factors as determinants of body mass index and body composition in individuals with Down syndrome?A study across three clinical sites	1/3/2026	Gomis González, Maria;Boronat Rigol, Anna; Langohr, Klaus ;Bianchi, Leda A.;Wells, Jasmine;Tamayo Elizalde, Miren;Ben Smida, Inés;de Verdun, Laude;Chan, Li F.;Hiance Delahaye, Anne;Strydom, André;De la Torre Fornell, Rafael	Nutrients
Factors influencing match retirement of professional men's tennis doubles players	28/2/2026	Romero, Sergio;Baiget Vidal, Ernest; Cortes Martinez, Jordi ;Martínez Gallego, Rafael;Crespo Celda, Miguel;Casals Toquero, Martí	International journal of performance analysis in sport
Design and analysis of randomized clinical trials for onchocerciasis, loiasis and mansonellosis: a systematic review	20/2/2026	Lotola Mougeni, Fabrice; Bofill Roig, Marta ;Hübner, Marc P.;Klarmann Schulz, Ute;Lenz, Benjamin;Specht, Sabine;Posch, Martin;Zehetmayer, Sonja	PLoS neglected tropical diseases
Analysis of non-prospective trial registration in clinical trials submitted to The BMJ: observational study	18/2/2026	Blanco De Tena Dávila, David;Loder, Elisabeth;Cook, Sophie;Casals Toquero, Martí; Cortes Martinez, Jordi ;Cadellans Arroniz, Aïda;Zárate, Víctor;Hubbard, Ella;Schroter, Sara	BMJ
Causes of death in NBA players: a competing risks analysis	1/1/2026	Martínez García, Jose Antonio; Langohr, Klaus ;Consuegra, Luciano;Felipo, Julián;Asensio Payá, Luis;Casals Toquero, Martí	BMJ open sport & exercise medicine

Papers 2025-26

Title	Date	Participants	Journal
Player defaults in professional tennis tournaments for men from 1973 to 2024	1/1/2026	Casals Toquero, Martí;Peña Curbelo, Victoria;Martínez García, Jose Antonio;Ampuero, Rodrigo; Cortes Martinez, Jordi ;Baiget Vidal, Ernest	Apunts. Educació física i esports
Methodological quality and reporting using time-to-event data in sports science and medicine: a scoping review	28/11/2025	Cortes Martinez, Jordi ;Nielsen, Rasmus Østergaard;Casals Toquero, Martí	BMJ open sport & exercise medicine
Digital transformation of building inspections: a function-oriented and predictive approach using the FastFoam system	17/11/2025	Rapinski, Jacek;Bednarczyk, Michal;Tomaszewski, Dariusz;Skotnicka-Siepsiak, Aldona;Templin, Tomasz;Zabielski, Jacek;Royano García, Verónica; Serrat Pie, Carles	Infrastructures
Impact of washout duration to account for left truncation in register-based epidemiologic studies: Estimating the risk of mental disorders	1/11/2025	Plana Ripoll, Oleguer;Momen, Natalie C.;Gallego Alabanda, Dídac;Chen, Danni;Nygaard, Hansen Stefan;Gomez Melis, Guadalupe;Bøcker Pedersen, Carsten;Agerbo, Esben	Epidemiology
R package GofCens: goodness-of-fit methods for right-censored data	21/10/2025	Besalu Mayol, Mireia ; Langohr, Klaus ;Francisco, Matilde;Garcia Fernández, Arnau; Gomez Melis, Guadalupe	R Journal
Reporting of generalized linear mixed models (GLMM) in sports sciences: a scoping review	3/10/2025	Casals Toquero, Martí; Fernández, Daniel ;Zumeta-Olaskoaga, Lore;Sánchez, Arnau;Zuccolotto, Paola	Journal of sports analytics
ADDIS-graphs for online error control with application to platform trials	1/10/2025	Fischer, Lasse; Bofill Roig, Marta ;Brannath, Werner	Biometrical journal
A multimodal lifestyle intervention complemented with epigallocatechin gallate to prevent cognitive decline in APOE- e4 carriers with Subjective Cognitive Decline: a randomized, double-blinded clinical trial (PENSA study)	1/9/2025	Forcano, Laura;Soldevila Domènech, Natàlia;Boronat Rigol, Anna;Sánchez Benavides, Gonzalo;Suárez Calvet, Marc;Cuenca, Aída;Domingo Gispert, Juan;Minguillón Gil, Carolina;Díaz Pellicer, Patricia;Fauria, Karine; Langohr, Klaus ;Dierssen, Mara;Grau Rivera, Oriol;Molinuevo Guix, José Luis;De la Torre Fornell, Rafael	JPAD-Journal of Prevention of Alzheimers Disease
Design considerations for a phase II platform trial in major depressive disorder	1/9/2025	Freitag, Michaela Maria;Zocholl, Dario;Meyer, Elias Laurin;Gold, Stefan M.; Bofill Roig, Marta ; De Smedt, Heidi ;Posch, Martin;König, Franz	Pharmaceutical statistics
Identifying clinically useful COVID-19 population and emergency department phenotypes across the pre-Omicron and Omicron periods	4/8/2025	Rodriguez-Idiazabal, Lander; Fernández, Daniel ;Quintana López, José María;García Asensio, Julia;Legarreta Olabarrieta, María José;Barrio Beraza, Irantzu	Archives of Public Health

Papers 2025-26

Title	Date	Participants	Journal
Player defaults in professional tennis tournaments for men from 1973 to 2024	1/1/2026	Casals Toquero, Martí;Peña Curbelo, Victoria;Martínez García, Jose Antonio;Ampuero, Rodrigo; Cortes Martinez, Jordi ;Baiget Vidal, Ernest	Apunts. Educació física i esports
Methodological quality and reporting using time-to-event data in sports science and medicine: a scoping review	28/11/2025	Cortes Martinez, Jordi ;Nielsen, Rasmus Østergaard;Casals Toquero, Martí	BMJ open sport & exercise medicine
Digital transformation of building inspections: a function-oriented and predictive approach using the FastFoam system	17/11/2025	Rapinski, Jacek;Bednarczyk, Michal;Tomaszewski, Dariusz;Skotnicka-Siepsiak, Aldona;Templin, Tomasz;Zabielski, Jacek;Royano García, Verónica; Serrat Pie, Carles	Infrastructures
Impact of washout duration to account for left truncation in register-based epidemiologic studies: Estimating the risk of mental disorders	1/11/2025	Plana Ripoll, Oleguer;Momen, Natalie C.;Gallego Alabanda, Dídac;Chen, Danni;Nygaard, Hansen Stefan;Gomez Melis, Guadalupe;Bøcker Pedersen, Carsten;Agerbo, Esben	Epidemiology
R package GofCens: goodness-of-fit methods for right-censored data	21/10/2025	Besalu Mayol, Mireia ; Langohr, Klaus ;Francisco, Matilde;Garcia Fernández, Arnau; Gomez Melis, Guadalupe	R Journal
Reporting of generalized linear mixed models (GLMM) in sports sciences: a scoping review	3/10/2025	Casals Toquero, Martí; Fernández, Daniel ;Zumeta-Olaskoaga, Lore;Sánchez, Arnau;Zuccolotto, Paola	Journal of sports analytics
ADDIS-graphs for online error control with application to platform trials	1/10/2025	Fischer, Lasse; Bofill Roig, Marta ;Brannath, Werner	Biometrical journal
A multimodal lifestyle intervention complemented with epigallocatechin gallate to prevent cognitive decline in APOE- e4 carriers with Subjective Cognitive Decline: a randomized, double-blinded clinical trial (PENSA study)	1/9/2025	Forcano, Laura;Soldevila Domènech, Natàlia;Boronat Rigol, Anna;Sánchez Benavides, Gonzalo;Suárez Calvet, Marc;Cuenca, Aída;Domingo Gispert, Juan;Minguillón Gil, Carolina;Díaz Pellicer, Patricia;Fauria, Karine; Langohr, Klaus ;Dierssen, Mara;Grau Rivera, Oriol;Molinuevo Guix, José Luis;De la Torre Fornell, Rafael	JPAD-Journal of Prevention of Alzheimers Disease
Design considerations for a phase II platform trial in major depressive disorder	1/9/2025	Freitag, Michaela Maria;Zocholl, Dario;Meyer, Elias Laurin;Gold, Stefan M.; Bofill Roig, Marta ; De Smedt, Heidi ;Posch, Martin;König, Franz	Pharmaceutical statistics
Identifying clinically useful COVID-19 population and emergency department phenotypes across the pre-Omicron and Omicron periods	4/8/2025	Rodriguez-Idiazabal, Lander; Fernández, Daniel ;Quintana López, José María;García Asensio, Julia;Legarreta Olabarrieta, María José;Barrio Beraza, Irantzu	Archives of Public Health

Papers 2025-26

Title	Date	Participants	Journal
Comprehensive psychosocial and spiritual care of people with advanced chronic conditions: The experience of La Caixa foundation program at 15 years	18/7/1905	Gomez-Batiste, Xavier; Montoliu, Rosa; Codinachs, Montserrat; Tebé, Cristian; Maté-Mendez, Jorge	Palliative & supportive care
Tissue characteristics underlying endocardial local impedance subtypes in chronic myocardial infarction	17/7/1905	Aranyó, Júlia; Martínez-Falguera, Daina; Teis, Albert; Fadeuilhe, Edgar; Rodríguez-Leor, Oriol; Bazan, Víctor; Sarrias, Axel; Tebe, Cristian; Villuendas, Roger; Delgado, Victoria	Heart Rhythm
flowchart: An R Package for Data Flowchart Generation	18/7/1905	Satorra, Pau; Carmezim, João; Pallarès, Natàlia; Taylor, Kenneth A.; Tebé, Cristian	Journal of Open Research Software
Muscular and plasma markers for early identification of frailty and sarcopenia states in people with HIV: results from the IMAGING study.	17/7/1905	Hernández-Sánchez, D.; Satorra, P.; Martínez, A.; Puig, J.; González, S.; Rupert, A.; Monté-Rubio, G.; Echeverria, P.; Bonjoch, A.; Ferrer-Arbaizar, J.	AIDS (London, England)
A multicenter COVID-19 database from four waves in the south metropolitan area of Barcelona, Catalonia	18/7/1905	Pallarès, N.; Carmezim, J.; Rodríguez-Molinero, A.; Coloma, A.; Izquierdo, E.; Díaz-Brito, V.; Videla, S.; Carratalà, J.; Gómez-Melis, G.; Tebé, C.	Scientific Data
Early start of urate-lowering therapy improves serum urate control: results from a large national primary care cohort	18/7/1905	Pou, Maria Antonia; Reyes, Carlen; Martinez-Laguna, Daniel; Satorra, Pau; Tebe, Cristian; Dalbeth, Nicola; Diaz-Torne, Cesar	The British journal of general practice: the journal of the Royal College of General Practitioners
Long-BANDING-SET: Five-year follow-up of the multicentre study on band ligation without resection of small subepithelial tumours	18/7/1905	Maisterra, S.; Bas-Cutrina, F.; Loras, C.; Pardo, A.; Ballester-Clau, R.; González-Huix, F.; Huertas, C.; Guarner-Argente, C.; Colán-Hernández, J.; Tebé, C.	Endoscopy
Non-invasive respiratory support escalation strategy in COVID-19 pneumonia. NIV vs CPAP after high-flow therapy failure: a single-center randomised trial.	17/7/1905	Toni Marín, Marina Galdeano, Esther Roca, Roxana Chirinos, Andrea Garcia, Adriana Martin, Agnes Hernández, Macarena Lovera, Santiago Menjura, Judith Boiza, Sofia Acero, Leire Mendiluce, Carmen Fernández, Raquel Guillamat, Cristian Tebe, Roger Paredes, Antoni Rosell, Irene Aldás	European Respiratory Journal

Papers 2025-26

Autors: Verónica Royano, **Carles Serrat**, Jacek Rapinski,
Vicenç Gibert

Títol: Simulation-based validation of the
Function-Oriented Assessment Methodology (FOAM)
for functional service life prediction

Publicació online: 02/06/2026

Journal: Results in Engineering

PROYECTOS: Safari

*Statistics for Health Sciences: Advances in Survival Analysis and Clinical Trials (**Safari**)*

Ministerio de Ciencia, Innovación y Universidades

Referencia: PID2023-148033OB-C21

Duración: 1.9.2024 - 31.12.2028

Cantidad otorgada: 200.000€

SAFARI: Equip

IP:

Klaus Langohr & Lupe Gómez

Equip investigador:

Mireia Besalú, David Blanco, Marta Bofill, Martí Casals, Jordi Cortés, Daniel Fernández, Núria Pérez, Xavier Piulachs, Cristian Tebé

Equip de treball:

Nora Amama, Werner Brannath, Erik Cobo, Urania Dafni, Laia Egea, Pau Esteve, Jimena Fernández, Pavla Krotka, Maria Lee, Jordi Ocaña, Natalia Pallarés, Martin Posch, Konstantinos Sechidis, Andrea Toloba, Liukan Yu, Sonja Zehetmayer

Personal de suport a la recerca:

Arnau Gómez

Sol·licitud SGR-Cat 2025

Coordinador:

Klaus Langohr

Nucli estable:

Conxita Arenas, Mireia Besalú, Marta Bofill, Sergi Civit, Daniel Fernández, Francesc Oliva, Núria Pérez, Santiago Pérez-Hoyos, Cristian Tebé

Altres membres:

Lupe Gómez, Jordi Cortés, Natalia Pallarés, Carles Serrat, Miquel Salicrú, Erik Cobo, Andrea Toloba, Nora Amama, Pavla Krotka, Pau Esteve, Maria Lee, Joao Carmezim, Emma Vidal, Pau Satorra

Sol·licitud SGR-Cat 2025

Pla de treball:

- **Knowledge and Quality of Life:**
 - Advanced Modeling and Metabolomics
 - Next-Generation Clinical Trials
 - Translational Innovation
- **Energy, Environmental, and Green Transition:**
 - Biodiversity and Climate Change
 - Energy Transition
 - Methodological Engine

Pressupost demanat: 84.800 €

Resolució: +/- Setembre 2026