



CURRÍCULUM VÍTAE NORMALIZADO



Francisco Catala Moll

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Dr. Francisco Català Moll is a postdoctoral researcher at the IrsiCaixa AIDS Research Institute whose work integrates immunology, epigenetics, and microbiome analysis in the context of HIV infection and reproductive health. He combines wet-lab methods with bioinformatics to study immune regulation and host–microbiome interactions. He holds a BSc in Biotechnology (University of Girona), an MSc in Genetics and Genomics, and a PhD in Biomedicine (University of Barcelona). During his doctoral training at the Josep Carreras Leukaemia Research Institute, he characterized cooperation between Vitamin D receptor, STAT3, and TET2 in active DNA demethylation underlying tolerogenic dendritic cell phenotypes; a research stay at DKFZ strengthened his expertise in ATAC-seq and computational analysis.

A central part of his contribution is research software. He is the author and maintainer of *dar*, an R/Bioconductor package for differential abundance analysis in microbiome studies, providing a coherent workflow that integrates multiple statistical approaches and promotes reproducibility. He is also the author and maintainer of *biocroxytest*, a companion R package for testing and validation workflows. At IrsiCaixa, he contributes to multidisciplinary projects (e.g., MISTRAL) and led data management and analysis for metagenomic datasets, as well as COVID-19 genomic surveillance infrastructure (CovidSeq and CovidTag).

Through his research and mentorship, Dr. Català aims to advance precision medicine approaches by integrating multi-omics and computational tools to study immune–microbiome interactions relevant to infection and reproductive health.



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CURRÍCULUM VÍTAE NORMALIZADO

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General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

Google Scholar, 38/10/2025

Totales

Citaciones: 1321

h-index: 16

i10-index: 19

Desde 2020

Citaciones: 1281

h-index: 15

i10-index: 19



Francisco Catala Moll

Surname(s):	Catala Moll
Name:	Francisco
DNI:	41744656R
ORCID:	0000-0002-2354-8648
Date of birth:	14/04/1989
Gender:	Male
Nationality:	Spain
Country of birth:	Spain
Aut. region/reg. of birth:	Balearic Islands
Contact province:	Barcelona
City of birth:	Mao
Contact address:	IJC Building, Camups ICO-Germans Trias i Pujol
Postcode:	08916
Contact country:	Spain
Contact aut. region/reg.:	Catalonia
Contact city:	Badalona
Land line phone:	(+34) 93 554 42 51
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Current professional situation

Employing entity: Irsicaixa, Institut de recerca de la SIDA

Department: Institut de recerca de la SIDA

Professional category: Investigador Postdoctoral

Start date: 01/09/2020

Type of contract: Permanent employment contract

Previous positions and activities

	Employing entity	Professional category	Start date
1	Josep Carreras Leukaemia Research institute	Estudiante Doctorado	01/10/2016
2	Fundació Privada Institut d'Investigació Biomedica de Bellvitge (IDIBELL)	Tecnico Laboratorio	01/01/2015

1 Employing entity: Josep Carreras Leukaemia Research institute

Type of entity: Foundation

Professional category: Estudiante Doctorado

Start-End date: 01/10/2016 - 01/04/2020



- 2 Employing entity:** Fundació Privada Institut d'Investigació Biomedica de Bellvitge (IDIBELL)
Professional category: Técnico Laboratorio
Start-End date: 01/01/2015 - 30/09/2016
Type of contract: Temporary employment contract



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

1 University degree: Higher degree

Name of qualification: Master Universitario en Genética y Genómica

City degree awarding entity: barcelona, Catalonia, Spain

Degree awarding entity: Universitat de Barcelona **Type of entity:** University

Date of qualification: 10/10/2016

Average mark: Good

2 University degree: Higher degree

Name of qualification: Graduado o Graduada en Biotecnología

City degree awarding entity: Girona, Catalonia, Spain

Degree awarding entity: Universitat de Girona **Type of entity:** University

Date of qualification: 10/10/2015

Average mark: Good

3 University degree: Higher degree

Name of qualification: Técnico superior en laboratorio de análisis y control de calidad

City degree awarding entity: Barcelona, Catalonia, Spain

Degree awarding entity: IES Narcís Monturiol **Type of entity:** secondary education institute

Date of qualification: 30/06/2011

Average mark: Good

4 University degree: Middle degree

Name of qualification: Técnico medio en laboratorio

City degree awarding entity: barcelona, Catalonia, Spain

Degree awarding entity: IES Escola del Treball

Date of qualification: 30/06/2009

Average mark: Good

Doctorates

Doctorate programme: Programa Oficial de Doctorado en Biomedicina

Degree awarding entity: Universitat de Barcelona **Type of entity:** University

City degree awarding entity: Barcelona, Catalonia, Spain

Date of degree: 08/06/2020

Thesis director: Esteban Ballestar Tarín

Thesis co-director: Javier Rodríguez Ubreva



Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

1 Title of course/seminar: BioC2023

Organising entity: Bioconductor

Duration in hours: 24 hours

Start-End date: 02/08/2023 - 04/08/2023

2 Title of course/seminar: 9th International Human Microbiome Consortium Congress

Organising entity: Human Microbiome Consortium

Duration in hours: 30 hours

Start-End date: 08/11/2022 - 10/11/2022

3 Title of course/seminar: 7th Bioinformatics and Genomics Conference

Goals of the course/seminar: Conferencia sobre avances bioinformaticos

Organising entity: Sociedad catalana de biología **Type of entity:** Associations and Groups

Duration in hours: 8 hours

Start-End date: 17/12/2019 - 17/12/2019

4 Title of course/seminar: 18th CRG Symposium 'Single cell and single molecule biology'.

Goals of the course/seminar: Formación en bioinformática single cell

Organising entity: Centro de Regulación Genómica **Type of entity:** CIBER

Duration in hours: 16 hours

Start-End date: 14/11/2019 - 15/11/2019

5 Title of course/seminar: Symposium Genetics and Epigenetics of Leukaemia and Lymphoma: From Knowledge to Applications

Goals of the course/seminar: Formación en avances en leucemias

Organising entity: Institut Josep Carreras **Type of entity:** Foundation

Faculty, institute or centre: IJC

Duration in hours: 10 hours

Start-End date: 19/10/2019 - 19/10/2019

6 Title of course/seminar: 9th Chromatin and Epigenetics Conference

Goals of the course/seminar: Formación en epigenética y genómica

Organising entity: societat catalana de biología **Type of entity:** Associations and Groups

Duration in hours: 10 hours

Start-End date: 22/03/2019 - 22/03/2019

7 Title of course/seminar: Mini Symposium 'OMICS in Cancer Research'

Goals of the course/seminar: Formación en aproximaciones omicas y bioinformática

Organising entity: Hospital Universitario Vall d'Hebron **Type of entity:** Healthcare Institutions

Duration in hours: 6 hours

Start-End date: 19/03/2019 - 19/03/2019

8 Title of course/seminar: 6th Bioinformatics and Genomics Conference

Goals of the course/seminar: Formación en bioinformática

Organising entity: sociedad catalana de biología **Type of entity:** Associations and Groups

Duration in hours: 10 hours



Start-End date: 20/12/2018 - 20/12/2018

9 Title of course/seminar: 31st Annual meeting of the European Macrophage and Dendritic Cell Society (EMDS)

Goals of the course/seminar: Formación en avances en immunología

Organising entity: FUNDACION CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES
CARLOS III

Duration in hours: 25 hours

Start-End date: 21/09/2017 - 23/09/2017

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English	B2	B2	B2	B2	B2
Catalan	C2	C2	C2	C2	C2
Spanish	C2	C2	C2	C2	C2

Teaching experience

Experience supervising doctoral thesis and/or final year projects

Project title: Developing microfunk: An R package for functional differential abundance testing in microbiome research

Entity: FUNDACIÓ PRIVADA INSTITUT DE RECERCA SOBRE IMMUNOPATOLOGIES -CAIXA IRSICAIXA **Type of entity:** University Centres and Structures and Associated Bodies

Date of reading: 04/07/2024

Other activities/achievements not included above

Description of the activity: Curso Capacitación Digital

Organising entity: CEPA Ciutadella

End date: 09/01/2024



Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

1 Name of the project: Microbiome-based stratification of individuals at risk of HIV-1 acquisition, chronic clinical complications, antimicrobial drug resistance, and unresponsiveness to therapeutic HIV-1 vaccination

Entity where project took place: IrsiCaixa **Type of entity:** Foundation

City of entity: Badalona, Catalonia, Spain

Funding entity or bodies:

(EC - H2020) - EUROPEAN COMMISSION - H2020 **Type of entity:** Public Research Body

Start-End date: 01/01/2020 - 30/06/2025

Total amount: 9.994.383,75 €

2 Name of the project: GRUP DE RECERCA BÀSICA I CLINICA A LES MALALTIES INFECCIOSES

Entity where project took place: IrsiCaixa **Type of entity:** Foundation

City of entity: Badalona, Catalonia, Spain

Funding entity or bodies:

(AGAUR) - AGENCIA DE GESTIÓ D'AJUTS UNIVERSITARIS I DE RECERCA **Type of entity:** University Research Institute

City funding entity: Barcelona, Catalonia, Spain

Start-End date: 01/01/2022 - 31/12/2024

Total amount: 39.080.735,47 €

3 Name of the project: Integration into the CIBER Network 2021, in the thematic area EI21 1.3. AIDS and Opportunistic Infections (CB21/13/00063)

Start-End date: 2021 - 2024

Total amount: 70.000 €

4 Name of the project: Genomic epidemiology of SARS-CoV-2 in Catalonia: virologic surveillance and outbreak control

Entity where project took place: IrsiCaixa **Type of entity:** Foundation

City of entity: Badalona, Catalonia, Spain

Funding entity or bodies:

(MARATÓ TV3) - FUNDACIÓ LA MARATÓ DE TV3 **Type of entity:** Foundation

City funding entity: Barcelona, Catalonia, Spain

Start-End date: 23/09/2021 - 22/09/2023

Total amount: 194.175 €

5 Name of the project: Molecular reclassification to find clinically useful biomarkers for systemic autoimmune diseases

Degree of contribution: Researcher

Entity where project took place: Fundacion **Type of entity:** Foundation

Prívada Institut d'Investigació Biomedica de Bellvitge

(IDIBELL)



City of entity: Barcelona, Catalonia, Spain

Funding entity or bodies:

INNOVATIVE MEDICINES INITIATIVE JOINT

Type of participation: Team member

Start-End date: 01/02/2014 - 31/01/2019

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** Francisco Muñoz-López; Antoni E. Bordoy; Francesc Català-Moll; Verónica Saludes; David Panisello Yagüe; Mariona Parera; Ignacio Blanco; Pere-Joan Cardona; Cristina Casañ; Ana Blanco-Suárez; Sandra Franco; Álvaro F. García-Jiménez; Roger Paredes; Bonaventura Clotet; Lourdes Mateu; Marc Noguera-Julian; Elisa Martró; José Ramón Santos; Marta Massanella. Identification of Clinical and Genomic Features Associated with SARS-CoV-2 Reinfections. *Viruses*. 17 - 6, 2025. Available on-line at: <<https://www.mdpi.com/1999-4915/17/6/840>>. ISSN 1999-4915

Type of production: Scientific paper

Format: Journal

- 2** Javier Gandasegui; Berta Grau-Pujol; Valdemiro Novela; Osvaldo Muchisse; Maria Cambra-Pellej('a); An{'e}lsio Cossa; Jos{'e} Carlos Jamine; Charfudin Sacoor; Eric A T Brienen; Francesc Català-Moll; Lisette van Lieshout; Mar{'i}a Mart{'i}nez-Valladares; Roger Paredes; Jos{'e} Mu{'n}oz; Stephen R Doyle. Deep-amplicon sequencing of the complete beta-tubulin gene in *Trichuris trichiura* before and after albendazole treatment. *Int. J. Parasitol. Drugs Drug Resist.* 26 - 100570, pp. 100570 - 100570. Elsevier BV, 12/2024.

Type of production: Scientific paper

Format: Journal

- 3** Francesc Catal('a)-Moll; Roger Paredes. The rectal microbiome: understanding its role in HIV transmission. *Curr. Opin. HIV AIDS. Ovid Technologies (Wolters Kluwer Health)*, 12/2024.

Type of production: Scientific paper

Format: Journal

Corresponding author: Yes

- 4** A. Elizalde-Torrent; A. Borgognone; M. Casadellà; L. Romero-Martin; T. Escribà; M. Parera; Y. Rosales-Salgado; J. Díaz-Pedroza; F. Català-Moll; M. Noguera-Julian; C. Brander; R. Paredes; A. Olvera. Vaccination with an HIV T-Cell Immunogen (HTI) Using DNA Primes Followed by a ChAdOx1-MVA Boost Is Immunogenic in Gut Microbiota-Depleted Mice despite Low IL-22 Serum Levels. *Vaccines*. 11, 2023. ISSN 2076393X

Type of production: Scientific paper

Format: Journal

Position of signature: 9

Total no. authors: 13

- 5** B. Oriol-Tordera; A. Esteve-Codina; M. Berdasco; M. Rosás-Umbert; E. Gonçalves; C. Duran-Castells; F. Català-Moll; A. Llano; S. Cedeño; M.C. Puertas; M. Tolstrup; O.S. Søgaard; B. Clotet; J. Martínez-Picado; T. Hanke; B. Combadiere; R. Paredes; D. Hartigan-O'Connor; M. Esteller; M. Meulbroek; M.L. Calle; A. Sanchez-Pla; J. Moltó; B. Mothe; C. Brander; M. Ruiz-Riol. Epigenetic landscape in the kick-and-kill therapeutic vaccine BCN02 clinical trial is associated with antiretroviral treatment interruption (ATI) outcome. *eBioMedicine*. 78, 2022. ISSN 23523964

Type of production: Scientific paper

Format: Journal

Position of signature: 7

Total no. authors: 26

- 6** A. Borgognone; M. Noguera-Julian; B. Oriol; L. Noël-Romas; M. Ruiz-Riol; Y. Guillén; M. Parera; M. Casadellà; C. Duran; M.C. Puertas; F. Català-Moll; M. De Leon; S. Knodel; K. Birse; C. Manzardo; J.M. Miró; B. Clotet; J. Martinez-Picado; J. Moltó; B. Mothe; A. Burgener; C. Brander; R. Paredes; S. Benet; S. Cedeño; P. Coll; A. Llano; M. Marszalek; S. Morón-López; R. Paredes; M. Rosás-Umbert; R. Escrig; S. Gel; M. López; C. Miranda; J. Muñoz; N. Perez-Alvarez; J. Puig; B. Revollo; J. Toro; A.M. Barriocanal; C. Perez-Reche; M. Farré; M. Valle; J. Ambrosioni; I. Ruiz; C. Rovira; C. Hurtado; C. Ligero; E. Fernández; S. Sánchez-Palomino; J.M. Miró; A. Carrillo; M. Meulbroek; F. Pujol; J. Saz; N. Borthwick; A. Crook; E.G. Wee; T. Hanke. Gut microbiome signatures linked to HIV-1 reservoir size and viremia control. *Microbiome*. 10, 2022. ISSN 20492618

Type of production: Scientific paper **Format:** Journal
Position of signature: 11
Total no. authors: 60

7 A.E. Bordoy; V. Saludes; D. Panisello Yagüe; G. Clarà; L. Soler; A. Paris de León; C. Casañ; A. Blanco-Suárez; M. Guerrero-Murillo; B. Rodríguez-Ponga; M. Noguera-Julian; F. Català-Moll; I. Pey; M.P. Armengol; M. Casadellà; M. Parera; R. Pluvinet; L. Sumoy; B. Clotet; M. Giménez; E. Martró; P.-J. Cardona; I. Blanco. Monitoring SARS-CoV-2 variant transitions using differences in diagnostic cycle threshold values of target genes. *Scientific Reports*. 12, 2022. ISSN 20452322

Type of production: Scientific paper **Format:** Journal
Position of signature: 12
Total no. authors: 23

8 C. Blázquez-Bondia; M. Parera; F. Català-Moll; M. Casadellà; A. Elizalde-Torrent; M. Aguiló; J. Espadaler-Mazo; J.R. Santos; R. Paredes; M. Noguera-Julian. Probiotic effects on immunity and microbiome in HIV-1 discordant patients. *Frontiers in Immunology*. 13, 2022. ISSN 16643224

Type of production: Scientific paper **Format:** Journal
Position of signature: 3
Total no. authors: 10

9 J. Rodríguez-Ubreva; A. Arutyunyan; M.J. Bonder; L. Del Pino-Molina; S.J. Clark; C. de la Calle-Fabregat; L. García-Alonso; L.-F. Handfield; L. Ciudad; E. Andrés-León; F. Krueger; F. Català-Moll; V.C. Rodríguez-Cortez; K. Polanski; L. Mamanova; S. van Dongen; V.Y. Kiselev; M.T. Martínez-Saavedra; H. Heyn; J. Martín; K. Warnatz; E. López-Granados; C. Rodríguez-Gallego; O. Stegle; G. Kelsey; R. Vento-Tormo; E. Ballestar. Single-cell Atlas of common variable immunodeficiency shows germinal center-associated epigenetic dysregulation in B-cell responses. *Nature Communications*. 13, 2022. ISSN 20411723

Type of production: Scientific paper **Format:** Journal
Position of signature: 12
Total no. authors: 27

10 A. Borgognone; A. Elizalde-Torrent; M. Casadellà; L. Romero; T. Escribà; M. Parera; F. Català-Moll; M. Noguera-Julian; C. Brander; A. Olvera; R. Paredes. Vaccination with an HIV T-cell immunogen induces alterations in the mouse gut microbiota. *npj Biofilms and Microbiomes*. 8, 2022. ISSN 20555008

Type of production: Scientific paper **Format:** Journal
Position of signature: 7
Total no. authors: 11

11 F. Català-Moll; A.G. Ferreté-Bonastre; G. Godoy-Tena; O. Morante-Palacios; L. Ciudad; L. Barberà; F. Fondelli; E.M. Martínez-Cáceres; J. Rodríguez-Ubreva; T. Li; E. Ballestar. Vitamin D receptor, STAT3, and TET2 cooperate to establish tolerogenesis. *Cell Reports*. 38, 2022. ISSN 22111247

Type of production: Scientific paper **Format:** Journal
Position of signature: 1
Total no. authors: 25



- 12** F. Català-Moll; A.G. Ferreté-Bonastre; T. Li; D. Weichenhan; P. Lutsik; L. Ciudad; Á.F. Álvarez-Prado; J. Rodríguez-Ubreva; C. Klemann; C. Speckmann; A. Vilas-Zornoza; H. Abolhassani; M. Martínez-Gallo; R. Dieli-Crimi; J.G. Rivière; A. Martín-Nalda; R. Colobran; P. Soler-Palacín; S. Kracker; L. Hammarström; F. Prosper; A. Durandy; B. Grimbacher; C. Plass; E. Ballestar. Activation-induced deaminase is critical for the establishment of DNA methylation patterns prior to the germinal center reaction. *Nucleic Acids Research.* 49, 2021. ISSN 13624962

Type of production: Scientific paper

Format: Journal

Position of signature: 1

Total no. authors: 25

- 13** J.L. Min; G. Hemani; E. Hannon; K.F. Dekkers; J. Castillo-Fernandez; R. Luijk; E. Carnero-Montoro; D.J. Lawson; K. Burrows; M. Suderman; A.D. Bretherick; T.G. Richardson; J. Klughammer; V. Iotchkova; G. Sharp; A. Al Khleifat; A. Shatunov; A. Iacoangeli; W.L. McArdle; K.M. Ho; A. Kumar; C. Söderhäll; C. Soriano-Tárraga; E. Giralt-Steinhauer; N. Kazmi; D. Mason; A.F. McRae; D.L. Corcoran; K. Sugden; S. Kasela; A. Cardona; F.R. Day; G. Cugliari; C. Viberti; S. Guarnera; M. Lerro; R. Gupta; S. Bollepalli; P. Mandaviya; Y. Zeng; T.-K. Clarke; R.M. Walker; V. Schmoll; D. Czamara; C. Ruiz-Arenas; F.I. Rezwan; R.E. Marioni; T. Lin; Y. Awaloff; M. Germain; D. Aïssi; R. Zwamborn; K. van Eijk; A. Dekker; J. van Dongen; J.-J. Hottenga; G. Willemsen; C.-J. Xu; G. Barturen; F. Català-Moll; M. Kerick; C. Wang; P. Melton; H.R. Elliott; J. Shin; M. Bernard; I. Yet; M. Smart; T. Gorrie-Stone; C. Shaw; A. Al Chalabi; S.M. Ring; G. Pershagen; E. Melén; J. Jiménez-Conde; J. Roquer; D.A. Lawlor; J. Wright; N.G. Martin; G.W. Montgomery; T.E. Moffitt; R. Poulton; T. Esko; L. Milani; A. Metspalu; J.R.B. Perry; K.K. Ong; N.J. Wareham; G. Matullo; C. Sacerdote; S. Panico; A. Caspi; L. Arseneault; F. Gagnon; M. Ollikainen; J. Kaprio; J.F. Felix; F. Rivadeneira; H. Tiemeier; M.H. van IJzendoorn; A.G. Uitterlinden; V.W.V. Jaddoe; C. Haley; A.M. McIntosh; K.L. Evans; A. Murray; K. Räikkönen; J. Lahti; E.A. Nohr; T.I.A. Sørensen; T. Hansen; C.S. Morgen; E.B. Binder; S. Lucae; J.R. Gonzalez; M. Bustamante; J. Sunyer; J.W. Holloway; W. Karmaus; H. Zhang; I.J. Deary; N.R. Wray; J.M. Starr; M. Beekman; D. van Heemst; P.E. Slagboom; P.-E. Morange; D.-A. Trégouët; J.H. Veldink; G.E. Davies; E.J.C. de Geus; D.I. Boomsma; J.M. Vonk; B. Brunekreef; G.H. Koppelman; M.E. Alarcón-Riquelme; R.-C. Huang; C.E. Pennell; J. van Meurs; M.A. Ikram; A.D. Hughes; T. Tillin; N. Chaturvedi; Z. Pausova; T. Paus; T.D. Spector; M. Kumari; L.C. Schalkwyk; P.M. Visscher; G. Davey Smith; C. Bock; T.R. Gaunt; J.T. Bell; B.T. Heijmans; J. Mill; C.L. Relton. Genomic and phenotypic insights from an atlas of genetic effects on DNA methylation. *Nature Genetics.* 53, 2021. ISSN 15461718

Type of production: Scientific paper

Format: Journal

Position of signature: 60

Total no. authors: 156

- 14** G. Barturen; S. Babaei; F. Català-Moll; M. Martínez-Bueno; Z. Makowska; J. Martorell-Marugán; P. Carmona-Sáez; D. Toro-Domínguez; E. Carnero-Montoro; M. Teruel; M. Kerick; M. Acosta-Herrera; L. Le Lann; C. Jamin; J. Rodríguez-Ubreva; A. García-Gómez; J. Kageyama; A. Buttgereit; S. Hayat; J. Mueller; R. Lesche; M. Hernandez-Fuentes; M. Juarez; T. Rowley; I. White; C. Marañón; T. Gomes Anjos; N. Varela; R. Aguilar-Quesada; F.J. Garrancho; A. López-Berrio; M. Rodriguez Maresca; H. Navarro-Linares; I. Almeida; N. Azevedo; M. Brandão; A. Campar; R. Faria; F. Farinha; A. Marinho; E. Neves; A. Tavares; C. Vasconcelos; E. Trombetta; G. Montanelli; B. Vigone; D. Alvarez-Errico; T. Li; D. Thiagarajan; R. Blanco Alonso; A. Corrales Martínez; F. Genre; R. López Mejías; M.A. Gonzalez-Gay; S. Remuzgo; B. Ubilla Garcia; R. Cervera; G. Espinosa; I. Rodríguez-Pintó; E. De Langhe; J. Cremer; R. Lories; D. Belz; N. Hunzelmann; N. Baerlecken; K. Kniesch; T. Witte; M. Lehner; G. Stummvoll; M. Zauner; M.A. Aguirre-Zamorano; N. Barbarroja; M.C. Castro-Villegas; E. Collantes-Estevez; E. de Ramon; I. Díaz Quintero; A. Escudero-Contreras; M.C. Fernández Roldán; Y. Jiménez Gómez; I. Jiménez Moleón; R. Lopez-Pedrera; R. Ortega-Castro; N. Ortego; E. Raya; C. Artusi; M. Gerosa; P.L. Meroni; T. Schioppo; A. De Groof; J. Ducreux; B. Lauwers; A.-L. Maudoux; D. Cornec; V. Devauchelle-Pensec; S. Jousse-Joulin; P.-E. Jouve; B. Rouvière; A. Saraux; Q. Simon; M. Alvarez; C. Chizzolini; A. Dufour; D. Wynar; A. Balog; M. Bocskai; M. Deák; S. Dulic; G. Kádár; L. Kovács; Q. Cheng; V. Gerl; F. Hiepe; L. Khodadadi; S. Thiel; E. de Rinaldis; S. Rao; R.J. Benschop; C. Chamberlain; E.R. Dow; Y. Ioannou; L. Laigle; J. Marovac; J. Wojcik; Y. Renaudineau; M.O. Borghi; J. Frostegård; J. Martín; L. Beretta; E. Ballestar; F. McDonald; J.-O. Pers; M.E. Alarcón-Riquelme. Integrative Analysis Reveals a Molecular Stratification of Systemic Autoimmune Diseases. *Arthritis and Rheumatology.* 73, 2021. ISSN 23265205

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Total no. authors: 132



- 15** M. Teruel; G. Barturen; M. Martínez-Bueno; O. Castellini-Pérez; M. Barroso-Gil; E. Povedano; M. Kerick; F. Català-Moll; Z. Makowska; A. Buttgereit; L. Beretta; B. Vigone; J.-O. Pers; A. Saraux; V. Devauchelle-Pensec; D. Cornec; S. Jousse-Joulin; B. Lauwers; J. Ducreux; A.-L. Maudoux; C. Vasconcelos; A. Tavares; E. Neves; R. Faria; M. Brandão; A. Campar; A. Marinho; F. Farinha; I. Almeida; M.A.G.-G. Mantecón; R.B. Alonso; A.C. Martínez; R. Cervera; I. Rodríguez-Pintó; G. Espinosa; R. Lories; E. De Langhe; N. Hunzelmann; D. Belz; T. Witte; N. Baerlecken; G. Stummvoll; M. Zauner; M. Lehner; E. Collantes; R. Ortega-Castro; M.ªA. Aguirre-Zamorano; A. Escudero-Contreras; M.ªC. Castro-Villegas; N. Ortego; M.C.F. Roldán; E. Raya; I.J. Moleón; E. de Ramon; I.D. Quintero; P.L. Meroni; M. Gerosa; T. Schioppo; C. Artusi; C. Chizzolini; A. Zuber; D. Wynar; L. Kovács; A. Balog; M. Deák; M. Bocskai; S. Dulic; G. Kádár; F. Hiepe; V. Gerl; S. Thiel; M.R. Maresca; A. López-Berrio; R. Aguilar-Quesada; H. Navarro-Linares; M. Alvarez; D. Alvarez-Errico; N. Azevedo; N. Barbarroja; A. Buttgereit; Q. Cheng; C. Chizzolini; J. Cremer; A. De Groof; E. De Langhe; J. Ducreux; A. Dufour; V. Gerl; M. Hernandez-Fuentes; L. Khodadadi; K. Kniesch; T. Li; C. Lopez-Pedrera; Z. Makowska; C. Marañón; B. Muchmore; E. Neves; B. Rouvière; Q. Simon; E. Trombetta; N. Varela; T. Witte; J.-O. Pers; C. Marañón; E. Ballestar; J. Martin; E. Carnero-Montoro; M.E. Alarcón-Riquelme. Integrative epigenomics in Sjögren's syndrome reveals novel pathways and a strong interaction between the HLA, autoantibodies and the interferon signature. *Scientific Reports.* 11, 2021. ISSN 20452322

Type of production: Scientific paper

Format: Journal

Position of signature: 8

Total no. authors: 108

- 16** O. Morante-Palacios; C. Lorente-Sorolla; L. Ciudad; J. Calafell-Segura; A. Garcia-Gomez; F. Català-Moll; A. Ruiz-Sanmartín; M. Martínez-Gallo; R. Ferrer; J.C. Ruiz-Rodriguez; D. Álvarez-Errico; E. Ballestar. JAK2-STAT Epigenetically Regulates Tolerized Genes in Monocytes in the First Encounter With Gram-Negative Bacterial Endotoxins in Sepsis. *Frontiers in Immunology.* 12, 2021. ISSN 16643224

Type of production: Scientific paper

Format: Journal

Position of signature: 6

Total no. authors: 12

- 17** A. Borgognone; G. Serna; M. Noguera-Julian; L. Alonso; M. Parera; F. Català-Moll; L. Sanchez; R. Fasani; R. Paredes; P. Nuciforo. Performance of 16s metagenomic profiling in formalin-fixed paraffin-embedded versus fresh-frozen colorectal cancer tissues. *Cancers.* 13, 2021. ISSN 20726694

Type of production: Scientific paper

Format: Journal

Position of signature: 6

Total no. authors: 10

- 18** A. Garcia-Gomez; T. Li; C. de la Calle-Fabregat; J. Rodríguez-Ubreva; L. Ciudad; F. Català-Moll; G. Godoy-Tena; M. Martín-Sánchez; L. San-Segundo; S. Muntión; X. Morales; C. Ortiz-de-Solórzano; J. Oyarzabal; E. San José-Enériz; M. Esteller; X. Agirre; F. Prosper; M. Garayoa; E. Ballestar. Targeting aberrant DNA methylation in mesenchymal stromal cells as a treatment for myeloma bone disease. *Nature Communications.* 12, 2021. ISSN 20411723

Type of production: Scientific paper

Format: Journal

Position of signature: 6

Total no. authors: 19

- 19** C. Lorente-Sorolla; A. Garcia-Gomez; F. Català-Moll; V. Toledano; L. Ciudad; J. Avendaño-Ortiz; C. Maroun-Eid; A. Martín-Quirós; M. Martínez-Gallo; A. Ruiz-Sanmartín; Á.G. Del Campo; R. Ferrer-Roca; J.C. Ruiz-Rodriguez; D. Álvarez-Errico; E. López-Collazo; E. Ballestar. Inflammatory cytokines and organ dysfunction associate with the aberrant DNA methylome of monocytes in sepsis. *Genome Medicine.* 11, 2019. ISSN 1756994X

Type of production: Scientific paper

Format: Journal

Position of signature: 3

Total no. authors: 16

- 20** J. Rodríguez-Ubreva; C. De La Calle-Fabregat; T. Li; L. Ciudad; M.L. Ballestar; F. Català-Moll; O. Morante-Palacios; A. Garcia-Gomez; R. Celis; F. Humby; A. Nerviani; J. Martin; C. Pitzalis; J.D. Cañete; E. Ballestar. Inflammatory cytokines shape a changing DNA methylome in monocytes mirroring disease activity in rheumatoid arthritis. *Annals of the Rheumatic Diseases.* 78, 2019. ISSN 14682060



Type of production: Scientific paper

Format: Journal

Position of signature: 6

Total no. authors: 15

21 V.C. Rodríguez-Cortez; P. Martínez-Redondo; F. Català-Moll; J. Rodríguez-Ubreva; A. Garcia-Gomez; G. Poorani-Subramani; L. Ciudad; H. Hernando; A. Pérez-García; C. Company; J.M. Urquiza; A.R. Ramiro; J.M. Di Noia; A. Vaquero; E. Ballestar. Activation-induced cytidine deaminase targets SUV4-20-mediated histone H4K20 trimethylation to class-switch recombination sites. *Scientific Reports.* 7, 2017. ISSN 20452322

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Total no. authors: 15

22 J. Rodríguez-Ubreva; F. Català-Moll; N. Obermajer; D. Álvarez-Errico; R.N. Ramirez; C. Company; R. Vento-Tormo; G. Moreno-Bueno; R.P. Edwards; A. Mortazavi; P. Kalinski; E. Ballestar. Prostaglandin E2 Leads to the Acquisition of DNMT3A-Dependent Tolerogenic Functions in Human Myeloid-Derived Suppressor Cells. *Cell Reports.* 21, 2017. ISSN 22111247

Type of production: Scientific paper

Format: Journal

Position of signature: 2

Total no. authors: 12

23 A. Garcia-Gomez; T. Li; M. Kerick; F. Català-Moll; N.R. Comet; J. Rodríguez-Ubreva; L. De La Rica; M.R. Branco; J. Martín; E. Ballestar. TET2- and TDG-mediated changes are required for the acquisition of distinct histone modifications in divergent terminal differentiation of myeloid cells. *Nucleic Acids Research.* 45, 2017. ISSN 13624962

Type of production: Scientific paper

Format: Journal

Position of signature: 4

Total no. authors: 10

Corresponding author: No

Works submitted to national or international conferences

1 **Title of the work:** dar: Consensus-based robustness for differential abundance testing in microbiome data analysis

Name of the conference: EuroBioc 2024

Corresponding author: Yes

City of event: Oxford, United Kingdom

Date of event: 04/09/2024

End date: 06/09/2024

Organising entity: Bioconductor

Type of entity: Associations and Groups

Francesc Català Moll; Marc Noguera Julian; Roger Paredes. "dar: Consensus-based robustness for differential abundance testing in microbiome data analysis".

2 **Title of the work:** dar: Consensus-based robustness for differential abundance testing in microbiome data analysis

Name of the conference: BioC 2023

Corresponding author: Yes

City of event: Boston, United States of America

Date of event: 02/08/2023

End date: 04/08/2023

Organising entity: Bioconductor

Type of entity: Associations and Groups

City organizing entity: Dana-Farber Cancer Institute, United States of America

Francesc Català Moll; Marc Noguera Julian; Roger Paredes. "dar: Consensus-based robustness for differential abundance testing in microbiome data analysis".



3 Title of the work: dar: Consensus-based robustness for differential abundance testing in microbiome data analysis

Name of the conference: 9th International Human Microbiome Consortium Congress

Corresponding author: Yes

City of event: Kobe, Japan

Date of event: 08/11/2022

End date: 10/11/2022

Organising entity: Human Microbiome Consortium **Type of entity:** Associations and Groups

City organizing entity: Kobe, Japan

Francesc Català Moll; Marc Noguera Julian; Roger Paredes. "dar: Consensus-based robustness for differential abundance testing in microbiome data analysis".

4 Title of the work: VDR impairs NF- κ B-associated enhancer DNA demethylation and subsequent transcription activation of immunogenic genes in dendritic cellsdifferentiation.

Name of the conference: 31nd Annual Conference EMDS 2017

City of event: Madrid, Community of Madrid, Spain

Date of event: 21/10/2017

Organising entity: Instituto de Salud Carlos III **Type of entity:** R&D Centre

City organizing entity: Madrid, Community of Madrid, Spain

Francisco Català Moll. "VDR impairs NF- κ B-associated enhancer DNA demethylation and subsequent transcription activation of immunogenic genes in dendritic cellsdifferentiation.".

Other achievements

Stays in public or private R&D centres

Entity: DKFZ

Type of entity: R&D Centre

Faculty, institute or centre: Epigenomics and Cancer Risk Factors

City of entity: Heidelberg, Germany

Start-End date: 01/02/2017 - 15/04/2017

Duration: 2 months - 15 days

Goals of the stay: Doctorate

Provable tasks: TWGBS and ATAC-seq