

CV Date

30/05/2024

### Part A. PERSONAL INFORMATION

First Name	Joan		
Family Name	Ribot Riutort		
Sex	Male	Date of Birth	
ID number Social Security, Passport			
URL Web			
Email Address	joan.ribot@uib.es		
Open Researcher and Contributor ID (ORCID)	0000-0003-4460-9371		

### A.1. Current position

Job Title	Full Professor		
Starting date	2021		
Institution	Universitat de les Illes Balears		
Department / Centre			
Country		Phone Number	
Keywords	Molecular, cellular and genetic biology		

### A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2008 - 2021	Profesor Titular de Universidad/Senior Lecturer / Universitat de les Illes Balears / Spain
2004 - 2008	Profesor Titular de Escuela Universitaria/Lecturer / Universitat de les Illes Balears / Spain
2001 - 2004	Profesor Titular de Escuela Universitaria Int./Assis. Professor / Universitat de les Illes Balears / Spain
2000 - 2001	Ayudante de Escuela Universitaria/Assis. Professor / Universitat de les Illes Balears / Spain
1997 - 2000	Beca predoctoral en la modalidad de Formación de Profesorado Universitario del Ministerio de Educación y Cultura del Gobierno de España/PhD student / Universitat de les Illes Balears / Spain
1996 - 1996	Beca de investigación de la Conselleria de Cultura, Educació i Esports del Govern Balear / Universitat de les Illes Balears / Spain

### A.3. Education

Degree/Master/PhD	University / Country	Year
Título oficial de Biólogo Especialista en Bioquímica Clínica	Dirección General de Universidades. Ministerio de Educación y Ciencia	2006
Doctor en Bioquímica (Programa de doctorado de Nutrición Molecular)	Universitat de les Illes Balears	2000
Mención de Doctor Europeo	Universitat de les Illes Balears	2000
Licenciatura en Bioquímica	Universitat de les Illes Balears	1998
Licenciatura en Ciencias (sección Biológicas rama Fundamental)	Universitat de les Illes Balears	1995

### Part B. CV SUMMARY

Biologist and Biochemist. PhD in Biochemistry with the European Doctor Mention and Specialist in Clinical Biochemistry. Researcher at the Nutrigenomics, Biomarkers and Risk Assessment

(NuBE) research group of the Laboratory of Molecular Biology, Nutrition and Biotechnology (LBNB) of the UIB, the Center for Biomedical Research in the Physiopathology of Obesity and Nutrition Network (CIBEROBN), initiative of the Carlos III Institute of Health, and the Institute of Health Research of the Balearic Islands (IdISBa). Member also of the NutriGenomics Organization (NuGO). I teach in the Biochemistry degree and in the University Master's and Interuniversity Doctorate in Nutrigenomics and Personalized Nutrition. I have been director of the University Master's in Nutrigenomics and Personalized Nutrition (2019-2020). Since 2020 I am the Dean of the Faculty of Sciences at the UIB.

My research focuses on the field of Molecular Nutrition and Molecular Physiopathology, more specifically in the study of the molecular mechanisms involved in the control by food components of cellular and metabolic processes in relation to the control of body weight, obesity and associated metabolic complications. We showed that treatment with retinoic acid, the carboxylic acid form of vitamin A, reduces body fat and improve insulin sensitivity in lean rodents by enhancing fat mobilization and energy utilization systemically, with the participation of the skeletal muscle and the liver. We have also shown the impact vitamin A and other active compounds of food in critical periods of early life can help to understand the programming mechanisms of the health/disease balance in adulthood, especially of white adipose tissue. We contribute also to show that cell cycle regulatory proteins (i.e. retinoblastoma protein) modulate metabolism in addition to cell proliferation and survival. In addition, I am involved in the identification and validation of new biomarkers for the characterization and quantification of physiological functions related to nutrition and health.

In connection with the research activity, he has experience in the field of functional nutrition for obesity control and in the study of the relationship between diet and health.

I participate in several research projects (2 as PI) and thematic networks financed with public funds and in collaboration with industry. Author of more than 45 original research articles published in internationally peer-reviewed and indexed prestigious journals. Also, author of several book chapters and international reviews and of more than 100 communications at National and International Scientific Congresses and Meetings. I have co-directed 5 doctoral theses related to Nutrigenomics and Personalized Nutrition. I have been Tutor of more than 25 degree's and master's theses. Likewise, I have been Tutor of several grants for students collaborating in research tasks and students in company internships for students in the last years of the degree.

## Part C. RELEVANT ACCOMPLISHMENTS

### C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper.** Bojan Stojnić; Sebastià Galmés; Alba Serrano; et al; Joan Ribot. 2023. Glycosaminoglycan dermatan sulfate supplementation decreases diet-induced obesity and metabolic dysfunction in mice. BIOFACTORS. WILEY. ISSN 1872-8081. SCOPUS (0) <https://doi.org/10.1002/biof.2022>
- 2 **Scientific paper.** Catalina Picó; Empar Lurbe; Jaap Keijer; et al; M Luisa Bonet; (12/14) Juana Sánchez. 2023. Study protocol: Identification and validation of integrative biomarkers of physical activity level and health in children and adolescents (INTEGRActiv). FRONTIERS IN PEDIATRICS. Frontiers Media SA. 11, pp.1250731. <https://doi.org/10.3389/fped.2023.1250731>
- 3 **Scientific paper.** Serrano, Alba; Palou, Andreu; Luisa Bonet, M.; (4/4) Ribot, Joan. 2022. Nicotinamide Riboside Supplementation to Suckling Male Mice Improves Lipid and Energy Metabolism in Skeletal Muscle and Liver in Adulthood. NUTRIENTS. MDPI. 14-11, pp.2259. <https://doi.org/10.3390/nu14112259>

- 4 Scientific paper.** Serrano, Alba; (2/4) Ribot, Joan (AC); Palou, Andreu; Luisa Bonet, M. 2021. Long-term programming of skeletal muscle and liver lipid and energy metabolism by resveratrol supplementation to suckling mice. *JOURNAL OF NUTRITIONAL BIOCHEMISTRY*. ELSEVIER. 95, pp.108770. ISSN 0955-2863. WOS (6) <https://doi.org/10.1016/j.jnutbio.2021.108770>
- 5 Scientific paper.** Stojnic, Bojan; Serrano, Alba; Susak, Lana; Palou, Andreu; Bonet, M. Luisa; (6/6) Ribot, Joan. 2021. Protective Effects of Individual and Combined Low Dose Beta-Carotene and Metformin Treatments against High-Fat Diet-Induced Responses in Mice. *NUTRIENTS*. MDPI. 13-10, pp.3607. WOS (1) <https://doi.org/10.3390/nu13103607>
- 6 Scientific paper.** Serrano, Alba; Asnani-Kishnani, Madhu; Couturier, Charlene; Astier, Julien; Palou, Andreu; Landrier, Jean-Francois; (7/8) Ribot, Joan (AC); Bonet, M. Luisa. 2020. DNA Methylation Changes are Associated with the Programming of White Adipose Tissue Browning Features by Resveratrol and Nicotinamide Riboside Neonatal Supplementation in Mice. *NUTRIENTS*. MDPI. 12-2, pp.461. WOS (10) <https://doi.org/10.3390/nu12020461>
- 7 Scientific paper.** Gille, Andrea; Stojnic, Bojan; Derwenskus, Felix; et al; (10/10) Ribot, Joan. 2019. A Lipophilic Fucoxanthin-Rich Phaeodactylum tricornutum Extract Ameliorates Effects of Diet-Induced Obesity in C57BL/6J Mice. *NUTRIENTS*. MDPI. 11-4, pp.796. ISSN 2072-6643. WOS (26) <https://doi.org/10.3390/nu11040796>
- 8 Scientific paper.** (1/6) Ribot, Joan (AC); Arreguin, Andrea; Kuda, Ondrej; Kopecky, Jan; Palou, Andreu; Luisa Bonet, Maria. 2019. Novel Markers of the Metabolic Impact of Exogenous Retinoic Acid with A Focus on Acylcarnitines and Amino Acids. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. MDPI. 20-15, pp.3640. WOS (1) <https://doi.org/10.3390/ijms20153640>
- 9 Scientific paper.** Serrano, Alba; Asnani-Kishnani, Madhu; Maria Rodriguez, Ana; Palou, Andreu; (5/6) Ribot, Joan (AC); Luisa Bonet, Maria. 2018. Programming of the Beige Phenotype in White Adipose Tissue of Adult Mice by Mild Resveratrol and Nicotinamide Riboside Supplementation in Early Postnatal Life. *MOLECULAR NUTRITION & FOOD RESEARCH*. WILEY. 62-21, pp.e1800463. ISSN 1613-4125. WOS (20) <https://doi.org/10.1002/mnfr.201800463>
- 10 Scientific edition.** M Luisa Bonet; (2/3) Joan Ribot; Catalina Picó. 2023. Decoding the Mechanisms Behind Early Weaning-Driven Obesity and the Leucine "Solution". *DIABETES*. American Diabetes Association. 72-10, pp.1347-1349. ISSN 0012-1797. SCOPUS (0) <https://doi.org/10.2337/dbi23-0011>
- 11 Review.** Diana Marisol Abrego-Guandique; M Luisa Bonet; Maria Cristina Caroleo; Roberto Cannataro; Paola Tucci; (6/7) Joan Ribot; Erika Cione. 2023. The Effect of Beta-Carotene on Cognitive Function: A Systematic Review. *Brain Sci.* MDPI. 13-10, pp.1468. ISSN 2076-3425. SCOPUS (1) <https://doi.org/10.3390/brainsci13101468>
- 12 Bibliographic review.** Bohn, Torsten; Bonet, M. Luisa; Borel, Patrick; et al; Dulinska-Litewka, Joanna; (7/21) Ribot, Joan. 2021. Mechanistic aspects of carotenoid health benefits - where are we now?. *NUTRITION RESEARCH REVIEWS*. Cambridge University Press. 34-2, pp.276-302. ISSN 0954-4224. WOS (15) <https://doi.org/10.1017/S0954422421000147>
- 13 Bibliographic review.** Bonet, M. Luisa; (2/5) Ribot, Joan; Galmes, Sebastia; Serra, Francisca; Palou, Andreu. 2020. Carotenoids and carotenoid conversion products in adipose tissue biology and obesity: Pre-clinical and human studies. *BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR AND CELL BIOLOGY OF LIPIDS*. ELSEVIER. 1865-11, pp.158676. ISSN 1388-1981. WOS (28) <https://doi.org/10.1016/j.bbapplied.2020.158676>
- 14 Bibliographic review.** Rodriguez-Concepcion, Manuel; Avalos, Javier; Luisa Bonet, M.; et al; Zhu, Changfu; (11/14) Ribot, Joan. 2018. A global perspective on carotenoids: Metabolism, biotechnology, and benefits for nutrition and health. *PROGRESS IN LIPID RESEARCH*. ELSEVIER. 70, pp.62-93. ISSN 0163-7827. WOS (356) <https://doi.org/10.1016/j.plipres.2018.04.004>

### C.3. Research projects and contracts

- 1 **Project.** PID2022-138140NB-I00 - Intervenciones durante la lactancia con componentes nutritivos y de estilo de vida para contrarrestar la programación metabólica de la obesidad (GOOD-LAC). Agencia Estatal de Investigación del Ministerio de Ciencia e Innovación (Generación del conocimiento, Programa Estatal para Impulsar la Investigación Científico-Técnica y su Transferencia). Catalina Picó Segura. (Universitat de les Illes Balears). 01/09/2023-31/08/2027. 275.000 €.
- 2 **Project.** CA20135 - Improving biomedical research by automated behaviour monitoring in the animal home-cage (TEATIME). European Cooperation in Science and Technology. Vootele Voikar (Chair). (University of Helsinki). 18/10/2021-17/10/2025. 100.000 €.
- 3 **Project.** RED2022-134577-T - Red Española de Carotenoides. Agencia Estatal de Investigación. Ministerio de Ciencia e Innovación. Lourdes Gómez Gómez. (UNIVERSIDAD DE CASTILLA-LA MANCHA). 01/06/2023-31/05/2025. 21.000 €.
- 4 **Project.** AC21\_2/00033 - Identification and validation of integrative biomarkers of physical activity level and health in children and adolescents (INTEGRActiv). JPI HDHL STAMIFY Call. Instituto de Salud Carlos III. Catalina Picó (Coordinator). (Fundació Institut d'Investigació Sanitària de les Illes Balears (IsISBa)). 01/03/2022-28/02/2025. 174.240 €.
- 5 **Project.** AP\_2021\_035 - Acción puntual de I+D enfocada a promover una colaboración internacional multidisciplinar sobre complicaciones metabólicas asociadas al uso de retinoides en clínica y su posible modulación por carotenoides dietéticos. Direcció General de Política Universitària i Recerca. GOIB. M Luisa Bonet. (Universitat de les Illes Balears). 01/10/2022-30/09/2023. 24.980 €.
- 6 **Project.** PGC2018-097436-B-I00 - Diferencias dependientes del sexo en la programación metabólica por bioactivos de la leche materna: nuevos ingredientes para la prevención del sobrepeso y sus mecanismos (X-MILK). Agencia Estatal de Investigación. Ministerio de Ciencia e Innovación. Andreu Palou. (Universitat de les Illes Balears). 01/01/2019-31/12/2022. 315.810 €.
- 7 **Project.** FU0631 - Caracterización de los mecanismos moleculares implicados en el control de los procesos celulares y metabólicos por los alimentos y componentes de los alimentos en relación con el control del peso corporal, la obesidad y sus complicaciones metabólicas asociadas, el cáncer y el envejecimiento (MECALI). Universitat de les Illes Balears. Joan Ribot. (Universitat de les Illes Balears). 05/10/2016-04/10/2020. 20.272,17 €.
- 8 **Project.** CA15136 - European network to advance carotenoid research and applications in agro-food and health (EUROCAROTEN). European Cooperation in Science and Technology. Antonio J Melendez (Action Chair) Martinez. (Universidad de Sevilla). 17/04/2016-17/04/2020. 691.500 €.
- 9 **Contract.** Asesoría experta en la identificación, análisis y selección de co-cristales de interés en el marco del proyecto "Modificaciones y sinergias de componentes de alimentos funcionales basados en matrices cocristalinas de esteroles vegetales" (Referencia interna 190125) Andreu Palou. 03/06/2019-15/09/2020. 62.920 €.
- 10 **Contract.** ALIÓPTIMA: Identificación de necesidades específicas de nutrientes y otros bioactivos en relación con actuales y posibles health claims, y sus combinaciones, para el diseño de alimentós y complementos multifuncionales apropiados en nutrición personalizada. Estudio de posible validación in vitro (Referencia interna 159515) Andreu Palou. 17/07/2014-17/07/2018. 81.675 €.