

CURRICULUM VITAE ABREVIADO (CVA)

Fecha del CVA	26/07/2023
----------------------	------------

Part A. PERSONAL INFORMATION

First name	COLLADO		
Family name	MARIA CARMEN		
Gender (*)	female	Birth date	26/10/1976
ID -number	24377448R		
e-mail	mcolam@iata.csic.es	URL Web: www.iata.csic.es	
Open Researcher and Contributor ID (ORCID) (*)		H-4924-2012 0000-0002-6204-4864	

(*) Mandatory

A.1. Current position

Position	Profesor de Investigación CSIC		
Initial date	06/04/2023		
Institution	AGENCIA ESTATAL DE INVESTIGACIONES CIENTIFICAS (CSIC)		
Department/Center	Instituto de Agroquímica y Tecnología de los Alimentos (IATA-CSIC). Departamento de Biotecnología. Grupo de Probióticos		
Country	Spain	Teleph. number	661472056
Key words	Food microbiology; microbiota; probiotics; diet; functional foods; breastfeeding; infancy; pregnancy		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2007-now	Adjunct Professor (Docent).Dept. Biochemistry and Food Chemistry, University of Turku, Finland Area: Food Microbiology: Nutrition and Intestinal Microbiota
2018-2023	Investigador Científico CSIC
2012-2018	Científico Titular CSIC
2011-2012	Senior Researcher Ramon y Cajal program. IATA-CSIC, Valencia, Spain (competitive contract-Government)
2007-2011	Post-doctoral Researcher I3P-CSIC program. IATA-CSIC, Valencia, Spain(competitive contract-CSIC)
2007	Post-doctoral Researcher Spanish Government fellowship, University Complutense of Madrid, Spain Department of Nutrition, Bromatology and Food Technology (competitive contract-national)
2005-2007	Post-doctoral Researcher. Functional Foods Forum, University of Turku, Turku, Finland
2001-2005	Pre-doctoral FPU Fellow. Dept. Biotechnology. UPV, Valencia, Spain (competitive grant-Government)

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Ingeniero Agronomo	Universidad Politécnica De Valencia (UPV)	2000
Lcdo. Ciencia & Tecnología De Los Alimentos	Universidad Politécnica De Valencia (UPV)	2002
Doctor en Biotecnología	Universidad Politécnica De Valencia (UPV)	2005

Part B. CV SUMMARY (max. 5000 characters, including spaces)

Maria Carmen Collado, PhD in Biotechnology (2005), Research Scientist at the Institute of Agrochemistry and Food Technology-Spanish National Research Council (IATA-CSIC), Valencia, Spain.

Her research work is multidisciplinary and includes microbiology, food science and nutrition areas. Her interests are focused on probiotics, microbiota and health and nutrition during pregnancy and early life period. She has published over 200 papers in peer-reviewed and indexed scientific journals on the subject of microbiota, Probiotics and health. She has participated in more than 200 communications to national and international conferences. She leads various national and European projects (ERC Starting, EIT-FOOD; ERA-HDHL, Marie-Curie IEF-H2020; Horizon Europe, PRIMA). She supervised 7 PhD Theses (plus 4 ongoing) and over 10 MSc Theses and several student supervisions. She was involved in external expert working groups and also, develops activities in various

national and international committees for the evaluation of research projects. She has received research awardees as ESPGHAN Young Researcher award (2015) from the European Society for Pediatric Gastroenterology Hepatology and Nutrition (ESPGHAN) and “Scientific Young Research in Nutrition-2021” from Fundación Jesus Serra. She is involved in the Executive Committee- International Society for Research in Human Milk and Lactation (ISRHML), Spanish Society of Microbiota, Probiotics and Prebiotics (SEMiPyP).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- Valles-Colomer M, Blanco-Míguez A, Manghi P, et al. Collado MC & Segata N. The person-to-person transmission landscape of the gut and oral microbiomes. *Nature* 2023 <https://doi.org/10.1038/s41586-022-05620-1> *Impact factor = 69.504 MULTIDISCIPLINARY SCIENCE* 1/74 (D1,Q1)
- Selma-Royo M, Bäuerl C, Mena-Tudela D, Aguilar-Camprubí L, Pérez-Cano FJ, Parra-Llorca A, Lerin C, Martínez-Costa C, **Collado MC** Anti-SARS-CoV-2 IgA and IgG in human milk after vaccination is dependent on vaccine type and previous SARS-CoV-2 exposure: a longitudinal study. *Genome Med.* 2022 Apr 21;14(1):42 *Impact factor = 15.26 GENETICS & HEREDITY* 5/175 (Q1)
- Selma-Royo M, González S, Gueimonde M, Chang M, Fürst A, Martínez-Costa C, Bode L, **Collado MC**. Maternal Diet Is Associated with Human Milk Oligosaccharide Profile. *Mol Nutr Food Res.* 2022 May 25:e2200058. *Impact factor = 6.575 FOOD SCIENCE & TECHNOLOGY* 21/144 (Q1)
- Bäuerl C, Randazzo W, Sánchez G, Selma-Royo M, García Verdeio E, Martínez L, Parra-Llorca A, Lerin C, Fumadó V, Crovetto F, Crispi F, Pérez-Cano FJ, Rodríguez G, Ruiz-Redondo G, Campoy C, Martínez-Costa C, **Collado MC**; MilkCORONA study team. SARS-CoV-2 RNA and antibody detection in breast milk from a prospective multicentre study in Spain. *Arch Dis Child Fetal Neonatal Ed.* 2021 Aug 20:fetalneonatal-2021-322463. *Impact factor= 6.65 PEDIATRICS* 8/130 (Q1)
- Salminen S, **Collado MC**, Endo A, Hill C, Lebeer S, Quigley EMM, Sanders ME, Shamir R, Swann JR, Szajewska H, Vinderola G. The International Scientific Association of Probiotics and Prebiotics (ISAPP) consensus statement on the definition and scope of postbiotics. *Nat Rev Gastroenterol Hepatol.* 2021 Sep;18(9):649-667. *Impact factor = 73.082 GASTROENTEROLOGY & HEPATOLOGY* 1/93 (D1,Q1) cited 290 times
- Mirzayi C, Renson A; Genomic Standards Consortium; Massive Analysis and Quality Control Society, et al, **Collado MC**, et al. and Waldron L. Reporting guidelines for human microbiome research: the STORMS checklist. *Nat Med.* 2021 Nov;27(11):1885-1892. *Impact factor = 87.24 BIOCHEMISTRY & MOLECULAR BIOLOGY* - 1/297(D1,Q1)*
- Ribo S, Sánchez-Infantes D, et al, **Collado MC**, Lerin C. Increasing breast milk betaine modulates *Akkermansia* abundance in mammalian neonates and improves long-term metabolic health. *Sci Transl Med.* 2021 31;13(587):eabb0322. *Impact factor= 9.34 MEDICINE, RESEARCH & EXPERIMENTAL* 3/139 (D1,Q1)
- Childs CE, Munblit D, Ulfman L, Gómez-Gallego C, Lehtoranta L, Recker T, Salminen S, Tiemessen M, **Collado MC**. Potential Biomarkers, Risk Factors and their Associations with IgE-mediated Food Allergy in Early Life: A Narrative Review. *Adv Nutr.* 2021;13(2):633–51. *Impact factor = 11.567 NUTRITION&DIETETICS* 2/90 (D1,Q1)*
- Selma-Royo M, Calatayud Arroyo M, García-Mantrana I, Parra-Llorca A, Escuriet R, Martínez-Costa C, **Collado MC**. Perinatal environment shapes microbiota colonization and infant growth: impact on host response and intestinal function. *Microbiome.* 2020;23;8(1):167. *Impact factor=14.65 MICROBIOLOGY* 8/137(Q1)*
- García-Mantrana I, Selma-Royo M, González S, Parra-Llorca A, Martínez-Costa C, **Collado MC**. Distinct maternal microbiota clusters are associated with diet during pregnancy: impact on neonatal microbiota and infant growth during the first 18 months of life. *Gut Microbes.* 2020 Jul 3;11(4):962-978 *Impact factor = 10.245 MICROBIOLOGY* 11/137(D1,Q1) cited 50 times
- Ferretti P, Pasoli E, Tett A, et al., **Collado MC**, Koren O, Tateo S, Soffiati M, Pedrotti A, Ventura M, Huttenhower C, Bork P, Segata N. 2018. Mother-to-Infant Microbial Transmission from Different Body Sites Shapes the Developing Infant Gut Microbiome. *Cell Host Microbe.* 24(1):133-145.e5. *Impact factor 2018=15.753 (in 2021=31.316) MICROBIOLOGY* 3/133 (D1,Q1) cited 485 times

C.2. Congress

- **Organización de reuniones científicas:** 2023. EFFOST, Valencia; WOMPI, Sophia; 2022. SEMiPyP Valencia; 2021: MVIF conferences; 2021. Co-chair Keystone Symposia Conference “The Microbiome: From Mother to Child” joint meeting with “Harnessing The Microbiome for Disease Prevention and Therapy”. January 2021; 2021. Chair Organizing committee FASEB Science Research Conference (SRC)-“The Origins and Benefits of Biologically Active Components in Human Milk Conference” June 2021, virtual; 2021. “8th Congress of The International Human Microbiome Consortium: IHMC 2021”. June 2021, Barcelona (Spain); 2021. Organizing and Scientific Committee “International Society for Research in Human Milk and Lactation (ISRHML)” August 2021, Stockholm (Sweden); 2019. “The Barcelona Debates on the Human Microbiome 2019. From Microbes to Medicines”. 20-21 June 2019, Barcelona (Spain)

- **Presentaciones invitadas (2017-2023):** **2023:** 3(international)/2(national); **2022:** 4(international)/3(national); **2021:** 7(international)/4(national); **2020:** 5(international)/2(national); **2019:** 7(international)/2(national); **2018:** 6(international)/5(national); **2017-2005:** 34(internacional)/26 (nacional).

Lista seleccionada de meetings internacionales: IHMC-International Human Microbiome Consortium; UENPS; Sociedad Europea de Nutrición Clínica y Metabolismo (ESPEN); ESPGHAN- European Society for Paediatric Gastroenterology, Hepatology and Nutrition; FASEB; Keystone Meetings; Nutrition & Growth; Forum DOHaD

C.3. Research projects related to the proposal

Financiación Europea

1. **INITIALISE- "Inflammation in human early life: targeting impacts on life- course health"**. HORIZON-HLTH-2022-STAYHLTH-02 Personalised blueprint of chronic inflammation in health-to-disease transition. 2023-2028. 11 partners (Finlandia, Suecia, Holanda, Italia, Alemania, UK and USA) 6.8 m€ (335.000€ IATA-CSIC). Coordinador: Matej (UTU); Role: WP leader
2. **FEED "From edible sprouts to healthy food"**. PRIMA S2 call 2022.2023-2025.10 partners (Italy, Germany, Spain, Croacia, Turkey, Israel). 1.4m€ (150.000€ IATA-CSIC). Coordinador: Carlotta De Filippo (CNR); Role: WP leader
3. **ECO-BIOTIC-"Physiological And Ecological Impact Of Pre- And Probiotic Interventions In Relation To Food Allergy In Early-Life"**. ERA-HDHL Call for Joint Transnational Research FOOD_HYPERSENS. 2022-2024. ANR & INRAE (France), IATA-CSIC (Spain); TUM (Germany); BGU (Israel). 1.3m€ (208.800 € IATA-CSIC). Coordinador: Martin Larsen (ANR); Role: WP leader
4. **MAMMAL-"Minimally-Modified Amino Microbiota Health"** EIT-Food Horizon Europe 2021-2022. CNR (Italy), IATA-CSIC (Spain), Danone-Nutricia (The Netherlands) (178.462,27 € IATA-CSIC). Coordinador: Carlotta de Filippo (CNR); Role:WP leader
5. **MicroMi- "Factors Driving Mother-To-Infant Microbiota Transfer"** Marie Curie MSCA-IF-2019 - Individual Fellowships H2020-RU 1.3.2. (ref 898088). 2021-2023. 172.932,48 €. Coordinador: MARIA CARMEN COLLADO; Principal Investigator: Maria del Mar Esteban
6. **MAMI-" The Power Of Maternal Microbes On Infant Health"**. European Research Council (ERC)-ERC Starting Grant Ref. ERC-2014-StG – 639226. 2015-2020. 1.5m€. PI: MARIA CARMEN COLLADO

Financiación Nacional y Autonómicas

1. **MILKCORONA-"Impact Of Maternal Sars-Cov-2 Infection And Vaccination On Breast Milk Antibodies, Milk Bioactive Compounds And Maternal-Child Health "** La Marató-TV3 COVID19. 2021-2023. IATA-CSIC, UB, Fundacion Recerca Sant Joan de Deu. 354.375,00 €. Coordinator and PI: MARIA CARMEN COLLADO
2. **NEOHEALTH- "Uso De Antibióticos, Microbiota Y Resistencias: Impacto En La Salud De La Población Infantil De La Comunidad Valenciana"**. GRUPOS DE INVESTIGACIÓN DE EXCELENCIA (PROMETEO 2020). 2020-2023. IATA-CSIC y IBV-CSIC (Spain). 371.795 €. Coordinator and PI: MARIA CARMEN COLLADO
3. **BABYBAC-"Uso De Nuevos Conceptos Para La Seleccíon De Consorcios Bacterianos Como Suplementos Alimenticios En Edad Temprana"**. Ministerio de Ciencia, Innovación y Universidades (MICIUN), (RTI2018-097982-B-I00). 2019-2022. 153.670 €. Coordinator and PI:MARIA CARMEN COLLADO
4. **DIM-2-ELI – "Dietary Improvement Of Breast Milk Composition To Counteract Early Life Infections"** Fundación La Marató-TV3. 2019-2022. IATA-CSIC and Universidad de Barcelona (UB). 298.812,50 €. Coordinador: FRANCISCO JOSE PEREZ CANO, Role: IP of Subproject 2

C.4. Contracts, technological or transfer merits

Private funding

- LABORATORIOS ORDESA S.L. 2014-2018. **Impacto del genotipo fut2 en las poblaciones microbianas y su interacción con el sistema inmune**
- AB-BIOTICS S.L. 2019-2020. **Estudios *in vitro* de propiedades probióticas en diferentes cepas acidolácticas**
- RECKITT (Premio-Ayuda A La Investigacion). 2021-2022. **Maternal diet influence on neonatal microbiota: relevance for the risk of allergy**
- INSTITUT D'INVESTIGACIONS BIOMÈDIQUES AUGUST PI I SUNYER/ FUNDACION SAN JOAN DE DEU. 2020-2021. **Estudio metabolómico en moco vaginal. determinación de ph, ácidos y bacterias lácticas.**
- DARWIN BIOPROSPECTING EXCELLENCE SL. 2020-2021. **Análisis de adhesión de cepas probióticas.**
- DANONE NUTRICIA. 2021-2023. **Impact Of Partially Fermented Infant Formula: Host-Microbe Interaction**

Patents

i)Y. Sanz, **M.C. Collado**. Protein extracts with a wide range of antibacterial activity and strains of the genus *Bifidobacterium* which produce same. (WO2006070040); ii) Y. Sanz, **M.C. Collado**. Compounds with antifungal

activity, which are produced by *Bifidobacterium* spp (WO2006070041-Withdrawn) &iii) Costales P; Ocon S; Moris F; Rodrigo L; **Collado MC**; Mira A. Non-invasive *in vitro* method for diagnosis and prognosis of colorectal cancer. (EP2927327A1-European Patent Office- Withdrawn 13-01-2020)

C.5. Otros meritos

- **Miembro:** 2021-actualidad. Miembro del Comité de Expertos “Global Breastfeeding Education Initiative (BFEI) – United Nations Institute for Training and Research (UNITAR)”;
 - 2020-actualidad. Miembro del Comité Ejecutivo de SeMiPyP (miembro 2011);
 - 2019-2022. Executive Committee- Councilor of the ISRHML (miembro 2015).
 - 2018-actualidad. American Society for Microbiology (ASM);
 - 2016-2021. Chair Grupo Trabajo “Immune Competence Across Lifespan: Impact Of Nutrition On Immune Competence And Its Consequences Later In Life’- ILSI nutrition, immunity and inflammation task force;
 - 2016-2020. Panel Expertos BIO4: Applied Biological Sciences, FWO Research Foundation, Belgica;
 - 2016. Grupo de Trabajo “Recomendaciones del Plan Estatal de Investigación Científica y Técnica y de Innovación -“Instrumentos de Investigación con Participación de Organismos Públicos I+D. Plan Estatal I+D+I 2017-2020. MINECO;
 - 2014-actualidad. American Society for Nutrition (ASN);
 - 2010-actualidad. International Association for Probiotics and Prebiotics, (ISAPP-SFA);
 - 2008-2012. Gut-immune working group (invited member) in Dietetic products, Nutrition and Allergies (NDA-EFSA)
 - **Redes de Investigación:** European Network for Gastrointestinal Health Research – ENGIHR. Ref. 08-RNP-018. European Science Foundation- ESF (Medical Sciences) 2010-2014;
 - 2) Microcluster VLC-CAMPUS of Excellence Group, Spain. 2010-2016;
 - 3) National Network on Lactic Acid Bacteria. 2010-now;
 - 4) PiGutNet. COST-FA1401. 2014 – 2018;
 - 5)-(BIRTH). COST -S1405. Period: 2015-2019
 - **Premios y otros reconocimientos:** **2021.** Premio Trayectoria Jóvenes investigadores Jesús Serra. **2017.** QUO “Liga Española de la Ciencia”- Mejores investigadores de España;
 - Año 2016.** Premio Danone al Joven Investigador. (Fundación Danone España);
 - Año 2015.** Premio ESPGHAN Joven Investigador. **Año 2013.** Premio Bidual de Investigación CARMEN PEDRAZ (Sociedad Española de Neonatología; 2013);
 - 2006.** Premio Premio Al Mejor Doctorado-UPV, Universidad Politécnica de Valencia (España)
 - **Teaching activities:** I have acted as supervisor of university students for their master’s thesis (microbiology) and Bachelor of Science thesis (food microbiology) and also, tutoring summer training programmes in Spain and in Finland. I am involved in lecturing
 - 1) Máster propio en producción sostenible de alimentos: tecnologías innovadoras aplicadas a la conservación de alimentos y valorización de subproductos agroalimentarios. UV (2021-2023);
 - 2) Master Biotecnología-Biomedica, UPV (2017-2020);
 - 3) Master Universitario seguridad y calidad alimentos, UV (2015-2017);
 - 4) Máster en I+D en Biotecnología y Biomedicina, UV (2016-2022);
 - 5) Master En Microbiota, Probióticos Y Prebióticos, Universidad Europea (UEM)-online (2019-2023).
 - **Institutional responsibilities**
 - 2019 –now Member of the Doctoral Committee Program on Biotechnology, UPV (Spain)
 - 2010 –now Faculty member, Functional Foods Forum, University of Turku (Finland)
 - **Dissemination of science**
 - **Scientific publication** “Las Científicas Cuentan” <http://www.lascientificascuentan.es/en/>
 - **Public presentations** “La Selección Española de la Ciencia” (iniciativa Revista QUO y CSIC). <https://www.quo.es/ciencia/g68207/seleccion-espanola-de-la-ciencia-2017-los-13-mejores-cientificos/>
 - **Reviewing activities**
- PhD examination boards:** 16 PhD students examined-8 abroad (Luxemburg, Italy, Canada, Australia, Belgium, Denmark, Norway and Netherlands).
- International Journals:** Associate Editor Microbiome Journal, Section “Nutrition and the microbiome, including probiotics/prebiotics”, BMC Springer (2019-now); Associate Editor for Microbial Symbioses in Frontiers in Microbiology (2018-now); Guest Associate Editor for Food Microbiology in Frontiers in Microbiology, for Nutritional Immunology in Frontiers in Immunology and Frontiers in Nutrition. Frontiers Topic Editor (2 special topics 2018 and 2019). *Reviewer for the high impact factor journals:* Microbiome, Scientific Reports, Nature Communications, ISMEJ, Gut, Am J Clin Nutr, Frontiers in Microbiology, Nutrients, Annual Nutrition, etc.
- Funding Agencies:** National level: Agència Valenciana d’Avaluació i Prospectiva (AVAP), Spain; Agencia Nacional de Evaluación y Prospectiva (ANEP). European level: The Eurostars Programme-EU (2016-2018); COST action-EU (2016-2018); BBSRC-Biotechnology & Biological Sciences Research Council, UK (2010-now); The Danish Council for Strategic Research–(2012-now); FNRS, Belgium (2011-now); FWO-Research Foundation– Flanders (2015-now); NWO(2017-now); FWF Austrian Science Fund (2018-now); French National Research Agency | ANR (2016-now); Italian Ministry of Education, Universities and Research (MIUR) (2018-now);. International level: Fondo para la Investigación Científica y Tecnológica–(FONCyT), Argentina (2011-now); ANII-Agencia Nacional Investigación e Innovación. República de Uruguay (2017-2019). Canada Research Program 2021-202