



**Professor Dr. M. TERESA SANCHO. Universidad de Burgos (University of Burgos), Spain)**

**Current appointment:** Professor of Nutrition and Bromatology of the University of Burgos (Spain). Head of the Nutrition and Bromatology Division of the University of Burgos Department of Biotechnology and Food Science. Head of the Burgos (Spain) Honey Research Unit. Representative of UNE-SPAIN within the ISO (*International Organization for Standardization*) committee for Bee Products (ISO/TC 34/SC 19).

**Other assignments:** Co-chair of the “International Honey Commission” (IHC). Member of the Association of Foods’ Scientists and Technologists of Castilla y León (Spain). Vice-Dean of Food Science and Technology (School of Sciences, Universidad de Burgos (*University of Burgos*), from 2004 to 2008).

**Research interests and awards:** Food safety, food chemistry, food analysis, food microstructure, and food toxicology, particularly focused on bee products. Establishment of “use-by” and “best before” date in honeys. Bee products analysis and characterization. Study of procedures aimed to make honey powder avoiding as much as possible the use of carriers and food additives. Author of over 75 research paper cited more than 700 times according to Science Citation Index. Her research was 4 times awarded by several Spanish beekeepers’ associations. On 7 December 2023 received the APIBA 2023 Scientific Excellence Award for her merits as an expert honey chemist.

**Experience in coordinating research projects and international cooperation and awards:** Coordinator and researcher of collaborative projects on honey granted by the Spanish Government and Spanish Regional Councils. Coordinator of more than 100 Research Agreements with Beekeepers Associations, Food Companies, and Small Businesses, the vast majority of them on honey. Cooperation with members of the International Honey Commission for the analysis of *Apis mellifera* honey, stingless bee’s honeys and propolis. Expert evaluating Spanish project proposals since 1996. The Project “Research on biological properties of honey and honey powder” (BU041G18). Financial Support: Junta de Castilla y León, Spain) was awarded by the calls: 1) “Itinerario para la Transferencia de Resultados (ITR)” 2020 and 2) “Convocatoria prototipos orientados al mercado” 2021. The “Honey Powder” preparation method was awarded with the Gold Award “INEX: India International Innovation and Invention Expo” 2022. The project to create the Universidad de Burgos spin-off company “Healthy & Tasty”, based on designing food drying processes with the only incorporation of food origin additives, won the First Prize of the Entrepreneur Campus competition (Castilla y León Spain) 2022.

**Most relevant recent publications (other articles are available at the URL: <https://orcid.org/0000-0002-9128-9422>)**

1. Pascual-Maté A, Osés SM, Fernández-Muiño MA, Sancho MT. 2018. Analysis of Polyphenols in Honey: Extraction, Separation and Quantification Procedures. *Separation & Purification Reviews* 47. DOI: 10.1080/15422119.2017.1354025
2. Osés SM, Marcos P, Azofra P, de Pablo A, Fernández-Muiño MA, Sancho MT. 2020. Phenolic profile, antioxidant capacities and enzymatic inhibitory activities of propolis from different geographical areas: Needs for analytical harmonization. *Antioxidants* 9, 74. DOI: 10.3390/antiox9010075
3. Almeida-Muradian LB, Barth OM, Dietemann V, Eyer M, Freitas AS, Martel AC, Marazzan GL, Marchese CM, Mucignat-Caretta C, Pascual-Maté A, Reybroeck W, Sancho MT, Sattler JAG. 2020. Standard methods for *Apis mellifera* honey research. *Journal of Apicultural Research* 59. DOI: 10.1080/00218839.2020.1738135
4. Gonzalez-Ceballos L, Fernández-Muiño MA, Osés SM, Sancho MT, Ibeas S, Reglero Ruiz, Vallejos S. 2021. Polymer film as starch azure container for the easy diastase activity determination in honey. *Food Chemistry* 355. DOI: 10.1016/j.foodchem.2021.129629.
5. Osés SM, Cantero L, Crespo M, Puertas G, González-Ceballos L, Vallejos S, Fernández-Muiño MA, Sancho MT. 2021. Attributes of ling-heather honey powder obtained by different methods with several carriers. *LWT-Food Science and Technology* 150. DOI: 10.1016/j.lwt.2021.112063.
6. González-Ceballos L, Guirado-Moreno JC, Utzeri G, García JM, Fernández-Muiño MA, Osés SM, Sancho MT, Arnaiz A, Valente, AJM, Vallejos S. 2023. Straightforward purification method for the determination of the activity of glucose oxidase and catalase in honey by extracting polyphenols with a film-shaped polymer. *Food Chemistry* 405. DOI: 10.1016/J.FOODCHEM.2022.134789.
7. Vilas-Boas M, Lopes M, Nunes LF, Pereyra A, Kunert C, Beckh G, Çelemlı OG, Sorkun K, Georgé S, Paulo L, Gardini S, Sancho MT, Osés, SM, Fernández-Muiño MA, Bankova V, Popova M, Trusheva B, Petrov N, Dastan T, Tananaki C & Fălcao SI. 2022. Assessing the performance of analytical methods for propolis—A collaborative trial by the international honey commission. *Journal of Apicultural Research* 62. DOI: 10.1080/00218839.2022.2053320.
8. Cantero L, González-Ceballos L, Vallejos S, Puertas G, Fernández-Muiño MA, Sancho MT, Osés SM. 2023. Impact of the Drying Procedure and Botanical Origin on the Physico-Chemical and Potentially Bioactive Properties of Honey Powders. *Foods* 12. DOI:10.3390/foods12213990
9. Gargouri W, Elleuche M, Fernández-Muiño MA, Sancho MT, Osés SM. 2024. Microencapsulated propolis powder: A promising ingredient of chewing gum. *Powder Technology* 440. DOI: 10.1016/j.powtec.2024.119777
10. Osés SM, Rodríguez C, Valencia O, Fernández-Muiño MA, Sancho MT. 2024. Relationships among hydrogen peroxide concentration, catalase, glucose oxidase and antimicrobial activities of honeys. *Foods* 13. DOI: 10.3390/foods13091344

**Spanish Patents about making honey powder:** 1) P202130603 (ES2932054), and 2) P202130604 (ES2932030).