Curriculum Vitae - Yolanda Sanz – February 2025

Current Position:

- Full Professor of Spanish Research Council (CSIC).
- Principal Investigator and Head of the Research Group Microbiome Innovation in Nutrition & Health at IATA-CSIC, Valencia, Spain. Webs: https://innobiome.csic.es/; https://www.iata.csic.es/es/personal/m-yolanda-sanz-herranz.
- Founder member of the Spanish Celiac Disease Association (SEC)
- Founder member of the International Systems Microbiome Association.
- Member of the Committee on Ethics and Research Integrity of CSIC

Education and qualifications:

- BSc in Pharmacy. Extraordinary Award. University of Valencia, Spain (1991).
- PhD in Pharmacy. Extraordinary Award. University of Valencia, Spain (1996).

Docent activities:

- Postgraduate course on Celiac Disease, Sevilla University, Spain (2011).
- MSc on Celiac Disease, University Università Politecnica delle Marche, Italy (2011).
- Assistant Professor of Dietetics and Human Nutrition. Department of Preventive Medicine, Public Health, Bromatology and Toxicology, University of Valencia, Spain (2005-2011).
- Diagnosis of Coeliac Disease and Gluten Sensitivity Postgraduate Course. Role of the intestinal microbiota. Edition VII. 2015.
- MSc on Personalized Nutrition, University of Valencia (2014-2016).

Other previous positions and scientific activities:

- Postdoctoral position at. Dept. Molecular Microbiology, University of Groningen. The Netherlands (Oct 1997- Nov 1999).
- Short stays at foreign institutions for research activities: Dept. Biochemistry, Institute of Food Research, Reading, UK (Sept-Dec 1995). Lactic Acid Bacteria Laboratory. INRA, Jouy en Josas, France. (July-August 2001); Dept. Microbiology and Biotechnology, University of Verona, Italy (Oct-Nov 2005); Dept. Immunology and Gnotobiology. Institute of Microbiology, Academy of Science of the Check Republic, Prague (Oct. 2006); Gastroenterology Division. McMaster University, Hamilton, Canada (Oct. 2007).

Quality Indicators

Total nº of scientific publications: 258 (WoS); 259 (Scopus)
Total number of citations: 15.981 (WoS); 19.313 (Scopus).
Index H: 73 (WoS); 80 (Scopus).
Total articles in last 5 years (2020-25) 61, in the first quartile (Q1) 47 (77%); in D1 22 (47%).
Nº "sexenios of research": 5; Dates of the last "sexenio": 2012-2017; Sexenio technologic:1
PhD Thesis supervised: 12 (all sobresaliente/cum laude) + 5 in progress.
ORCID: 0000-0002-1615-1976
ResearcherID (Web of Science): H-5498-2012
Scopus Author ID: 7003409923

Research highlights, publication records, awards and scientific boards (Summary)

Yolanda Sanz is a world-leading expert in human microbiome science and is head of the research group Innobiome "Microbiome Innovation in Nutrition and Health" at IATA-CSIC. Prof. Sanz has

published >250 (WoS/Scopus) scientific papers, many in high-impact Journals (Nat Microbiol, Nat Comm, Cell Metab, Gut, Brain Behav Immun, Am J Clin Nutr, Microbiome, Clin. Nutr. etc.). She led pioneering research on the relationship between the gut and milk microbiome and celiac disease (CeD) and, more recently, she has contributed to a better understanding of the gut microbiome in obesity and stress-associated disorders. She has been awarded many national, regional and international competitive research grants, accounting for a total funding of ~9.1 M€. She has also coordinated two large European projects on the gut microbiome and human health (7FP EU project "MyNewGut- Microbiome Influence on Energy balance and Brain Development-Function Put into Action to Tackle Diet-related Diseases and Behaviour" 2013-18; and "Climb-Out-Child microbes predict how to stay away from obesity", 2021–22) and has been the PI on other international projects in this field (EarlyCause, MicrobiomeSupport, CIRCLES, TRIBIOME). She has also coordinated two MSCA-IF (miVaO and MicroILCs; EU H2020) focused on the role of the microbiota and diet in the neuroendocrine and immune systems. Beyond academic funding, Prof. Sanz has led many projects for industry, accounting for a total funding of ~2.6 M€. She has developed 14 patents, of which seven have been licensed and one is under exploitation.

She has received four Awards in recognition of her contributions to the field: the John Harries Award in Gastroenterology from the European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN), in June 2009; the Spanish Society of Paediatric Gastroenterology, Hepatology and Nutrition (SEGHNP), in May 2007, for her pioneering work on the role of the microbiota in celiac disease; the International Hippocrates Award on Nutrition, for her research on obesity (2019), the Catalonia Celiacs Association Award for investigating the gut microbiota features in treated celiac disease with differences in the mucosal recovery (2021) and the IFF/Danisco Foundation Award for her contribution to Microbiome Innovation (2024).

Prof. Sanz has been an expert member of several Regulatory Scientific Panels, including the EFSA Panel on Nutrition, Dietetic Products and Allergy (NDA) (2009–2018), the Working Groups on Health Claims and Novel Foods (until 2019), and the Guidance Review Group of the Scientific Committee and Emerging Risks of EFSA (2012–2015) and the EFSA Panel on Additives and Products or Substances used in Animal Feed (FEEDAP) (2018–2023). Regarding her role in Scientific Advisory Boards, Prof. Sanz has been co-chair of the working group on Nutrition and Health of the European Platform "Food for Life" (2017-2023), a Collaborator of the Spanish Research Agency for International projects (JPI, ERANET, etc., 2022/23), and a Project Evaluator for different national (ANEP, MICIN) and international (EU DG-Research, SNSF, Thrasher Research Fund-USA, German Research Foundation, Novo Nordisk Research Foundation, Diabetes UK, etc.) funding bodies.

Publications (selected of the last 15 years)

1. Collado, M.C.; Donat, E., Ribes-Koninckx, C.; Calabuig, M.; **Sanz, Y.** Specific duodenal and fecal bacteria are associated with pediatric celiac disease. J Clin Pathol 2009; 62, 264-269.

2. Nadal I, Santacruz A, Marcos A, Warnberg J, Garagorri M, Moreno LA, Martin-Matillas M, Campoy C, Martí A, Moleres A, Delgado M, Veiga OL, García-Fuentes M, Redondo CG, **Sanz Y.** Shifts in clostridia, bacteroides and immunoglobulin-coating fecal bacteria associated with weight loss in obese adolescents. Int J Obes (Lond). 2009; 33, 758-767.

3. Collado MC, Isolauri E., Saliminen S. **Sanz Y**. The impact of probiotics in Gut Health. Current Drug Metabolism. 2009, 10, 68-78.

4. Santacruz A, Marcos A, Wärnberg J, Martí A, Martin-Matillas M, Campoy C, Moreno LA, Veiga O, Redondo-Figuero C, Garagorri JM, Azcona C, Delgado M, García-Fuentes M, Collado MC, **Sanz Y.** Interplay Between Weight Loss and Gut Microbiota Composition in Overweight Adolescents. Obesity (Silver Spring). 2009. 17(10):1906-15.

5. **Sanz Y.** Novel Perspectives in Celiac Disease Therapy. Mini-Reviews in Medicinal Chemistry, 9, 3, 359-367, 2009.

6. Bernardo D, Garrote JA, Nadal I, León AJ, Calvo C, Fernández-Salazar L, Blanco-Quirós A, **Sanz Y,** Arranz E. Is it true that coeliacs do not digest gliadin? Degradation pattern of gliadin in coeliac disease small intestinal mucosa. Gut. 2009 Jun;58(6):886-7.

7. De Palma G, Nadal I, Collado MC, **Sanz Y.** Effects of a gluten-free diet on gut microbiota and immune function in healthy adult human subjects. Br J Nutr. 2009. May 18:1-7.

8. De Palma G, Capilla A, Nadal I, Nova E, Pozo T, Varea V, Polanco I, Castillejo G, Ribes-Koninckx C, Garrote JA, Calvo C, García-Novo MD, Cilleruelo ML, López A, Palau F, **Sanz Y.** Interplay Between Human Leukocyte Antigen Genes and the Microbial Colonization Process of the Newborn Intestine. Curr Issues Mol Biol. 2009, 28;12(1):1-10.

9. Natividad JM, Huang X, Slack E, Jury J, **Sanz Y**, David C, Denou E, Yang P, Murray J, McCoy KD, Verdú EF. Host responses to intestinal microbial antigens in gluten-sensitive mice. PLoS One. 2009 Jul 31;4(7):e6472.

10. **Sanz Y**; De Palma, G. Gut microbiota and probiotics in modulation of epithelium and gut-associated lymphoid tissue function. International Reviews of Immunology. 2009, 28: 397-413.

11. De Palma G, Cinova J, Stepankova R, Tuckova L, **Sanz Y.** Pivotal Advance: Bifidobacteria and Gram-negative bacteria differentially influence immune responses in the proinflammatory milieu of celiac disease. J Leukoc Biol. 2010 May;87(5):765-78.

12. De Palma G, Nadal I, Medina M, Donat E, Ribes-Koninckx C, Calabuig M**, Sanz Y.** Intestinal dysbiosis and reduced immunoglobulin-coated bacteria associated with coeliac disease in children. BMC Microbiol. 2010 Feb 24;10(1):63.

13. Santacruz A, Collado MC, García-Valdés L, Segura MT, Martín-Lagos JA, Anjos T, Martí-Romero M, Lopez RM, Florido J, Campoy C, **Sanz Y.** Gut microbiota composition is associated with body weight, weight gain and biochemical parameters in pregnant women. Br J Nutr. 2010 Mar 8:1-10.

14. Sánchez E, Donat E, Ribes-Koninckx C, Calabuig M, **Sanz Y.** Intestinal *Bacteroides* species associated with coeliac disease. Journal of Clinical Pathology. 2010. 63(12):1105-11.

15. Cinova J, De Palma G, Stepankova R, Kofronova O, Kverka M, **Sanz Y**, Tuckova L. Role of intestinal bacteria in gliadin-induced changes in intestinal mucosa: study in germ-free rats. PLoS One. 2011 Jan 13;6(1):e16169.

16. **Sanz Y.** Gut microbiota and probiotics in maternal and infant health. Am J Clin Nutr. 2011 Dec;94(6 Suppl):2000S-2005S.

17. Sánchez E, De Palma G, Capilla A, Nova E, Pozo T, Castillejo G, Varea V, Marcos A, Garrote JA, Polanco I, López A, Ribes-Koninckx C, García-Novo MD, Calvo C, Ortigosa L, Palau F, **Sanz Y.** Colonization of infant's gut by *Bacteroides* is influenced by environmental and genetic factors linked to celiac disease risk. Appl Environ Microbiol. 2011, 77(15), 5316-5323.

18. **Sanz Y**, De Pama G; Laparra M. Unraveling the Ties between Celiac Disease and Intestinal Microbiota. International Reviews of Immunology, 30:207–218, 2011.

19. Natividad JM, Petit V, Huang X, de Palma G, Jury J, **Sanz Y,** Philpott D, Garcia Rodenas CL, McCoy KD, Verdu EF. Commensal and probiotic bacteria influence intestinal barrier function and susceptibility to colitis in Nod1(-/-), Nod2(-/-)Mice. Inflamm Bowel Dis. 2012. 18(8):1434-46 doi: 10.1002/ibd.22848.

20. Silva MA, Jury J, **Sanz Y,** Wiepjes M, Huang X, Murray JA, David CS, Fasano A, Verdú EF. Increased Bacterial Translocation in Gluten-Sensitive Mice Is Independent of Small Intestinal Paracellular Permeability Defect. Dig Dis Sci. 2012 Jan;57(1):38-47.

21. Van Loveren, H.; **Sanz Y.;** Salminen S. Health claims in Europe: probiotics and prebiotics as case example. Annual Reviews in Food Science and Technology. 2012; 3:247-61.

22. De Palma G, Capilla A, Nova E, Castillejo G, Varea V, Pozo T, Garrote JA, Polanco I, López A, Ribes-Koninckx C, Marcos A, García-Novo MD, Calvo C, Ortigosa L, Peña-Quintana L, Palau F, **Sanz Y.** Influence of Milk-Feeding Type and Genetic Risk of Developing Coeliac Disease on Intestinal Microbiota of Infants: The PROFICEL Study. PLoS One. 2012;7(2):e30791.

23. Laparra JM, Olivares M, Gallina O, **Sanz Y**. *Bifidobacterium longum* CECT 7347 Modulates Immune Responses in a Gliadin-Induced Enteropathy Animal Model. PLoS One. 2012;7(2):e30744.

24. Pozo-Rubio T, Capilla A, Mujico JR, de Palma G, Marcos A, **Sanz Y,** Polanco I, García-Novo MD, Castillejo G, Ribes-Koninckx C, Varea V, Palau F, Ortigosa L, Peña-Quintana L, Nova E. Influence of breastfeeding versus formula feeding on lymphocyte subsets in infants at risk of coeliac disease: the PROFICEL study. Eur J Nutr. 2013 Mar;52(2):637-46.

25. Sánchez E, Laparra JM, **Sanz Y.** Discerning the role of *Bacteroides fragilis* in celiac disease pathogenesis. Appl Environ Microbiol. 2012 Sep;78(18):6507-15.

26. Gauffin Cano P, Santacruz A, Moya A, **Sanz Y.** *Bacteroides uniformis* CECT 7771 Ameliorates Metabolic and Immunological Dysfunction in Mice with High-Fat-Diet Induced Obesity. PLoS One. 2012;7(7):e41079.

27. De Palma G, Kamanova J, Cinova J, Olivares M, Drasarova H, Tuckova L, **Sanz Y**. Modulation of phenotypic and functional maturation of dendritic cells by intestinal bacteria and gliadin: relevance for celiac disease. J Leukocyte Biol. 2012;92(5):1043-54.

28. Pozo-Rubio T, Olivares M, Nova E, De Palma G, Mujico JR, Ferrer MD, Marcos A, **Sanz Y** Immune Development and Intestinal Microbiota in Celiac Disease. Clinical and Developmental Immunology. 2012;2012:654143.

29. Sánchez E, Ribes-Koninckx C, Calabuig M, **Sanz Y.** Intestinal *Staphylococcus* spp. and virulent features associated with coeliac disease. J Clin Pathol 2012;65: 830-834.

30. Sanz Y, Rastmanesh R, Agostonic C. Understanding the role of gut microbes and probiotics in obesity: How far are we? Pharmacological Research. 2013; 69, 144– 155.

31. Davila AM, Blachier F, Gotteland M, Andriamihaja M, Benetti PH, **Sanz Y,** Tomé D. Intestinal luminal nitrogen metabolism: role of the gut microbiota and consequences for the host. Pharmacol Res. 2013 Feb; 68(1):95-107.

32. Gauffin Cano P, Santacruz A, Trejo F, **Sanz Y.** *Bifidobacterium* CECT 7765 improves metabolic and immunological alterations associated with obesity in high-fat diet fed mice. Obesity (Silver Spring). 2013; 21(11):2310-21. doi: 10.1002/oby.20330.

33. Olivares M, Laparra JM, **Sanz Y.** Host genotype, intestinal microbiota and inflammatory disorders. Br J Nutr. 2013;109 Suppl 2:S76-80.

34. Laparra JM, Olivares M, **Sanz Y.** Oral administration of *Bifidobacterium longum* CECT 7347 ameliorates gliadin-induced alterations in liver iron mobilisation. Br J Nutr. 2013 Nov;110(10):1828-1836.

35. Sánchez E, Donat E, Ribes-Koninckx C, Fernández-Murga L, **Sanz Y.** Duodenal-mucosal bacteria associated with celiac disease in children. Appl Environ Microbiol. 2013;79(18):5472-5479.

36. Moratalla A, Gómez-Hurtado I, Santacruz A, Moya A, Peiró G, Zapater P, González-Navajas JM, Giménez P, Such J, **Sanz Y,** Francés R. Protective effect of *Bifidobacterium pseudocatenulatum* CECT7765 against induced-bacterial antigen translocation in experimental cirrhosis. Liver Int. 2014 Jul;34(6):850-8. doi: 10.1111/liv.12380.

37. Moya-Pérez A, Romo-Vaquero M, Tomás-Barberán F, **Sanz Y,** García-Conesa MT. Hepatic molecular responses to *Bifidobacterium pseudocatenulatum* CECT 7765 in a mouse model of diet-induced obesity. Nutr Metab Cardiovasc Dis. January 2014. 24(1) 57-64.

38. Olivares M, Albrecht S, De Palma G, Ferrer MD, Castillejo G, Schols HA, **Sanz Y.** Human milk composition differs in healthy mothers and mothers with celiac disease. Eur J Nutr. 2015 Feb;54(1):119-28.

39. Mårild K, Ludvigsson J, **Sanz Y,** Ludvigsson JF. Antibiotic exposure in pregnancy and risk of coeliac disease in offspring: a cohort study. BMC Gastroenterol. 2014 Apr 14;14(1):75.

40. Olivares M, Castillejo G, Varea V, **Sanz Y.** Double-blind, randomised, placebo-controlled intervention trial to evaluate the effects of *Bifidobacterium longum* CECT 7347 in children with newly diagnosed coeliac disease. Br J Nutr. 2014 Jul 14;112(1):30-40.

41. Gómez-Hurtado I, Moratalla A, Moya-Pérez A, Peiró G, Zapater P, González-Navajas JM, Giménez P, Such J, **Sanz Y**, Francés R. Role of Interleukin 10 in norfloxacin prevention of luminal free endotoxin translocation in mice with CCl4-induced cirrhosis. Journal of Hepatology. Journal of Hepatol. 2014 May 29. pii: S0168-8278(14)00378-X. doi:10.1016/j.jhep.2014.05.031.

42. Liu X, Blouin JM, Santacruz A, Lan A, Andriamihaja M, Wilkanowicz S, Benetti PH, Tomé D, **Sanz Y,** Blachier F, Davila AM. High protein diet modifies colonic microbiota and luminal environment but not colonocyte metabolism in the rat model: The increased luminal bulk connection. Am J Physiol Gastrointest Liver Physiol. 2014 Aug 15;307(4):G459-70.

43. **Sanz Y,** Olivares M, Moya-Pérez A, Agostoni C. Understanding the role of gut microbiome in metabolic disease risk. Pediatr Res. 2015 Jan;77(1-2):236-44. doi:10.1038/pr.2014.170.

44. Moratalla A, Gómez-Hurtado I, Moya-Pérez Á, Zapater P, Peiró G, González-Navajas JM, Gómez Del Pulgar EM, Such J, **Sanz Y,** Francés R. *Bifidobacterium pseudocatenulatum* CECT7765 promotes a TLR2-dependent anti-inflammatory response in intestinal lymphocytes from mice with cirrhosis. Eur J Nutr. 2016 Feb;55(1):197-206.

45. Olivares, M.; Neef, A.; Castillejo, G.; De Palma, G.; Varea, V.; Capilla, A.; Palau, F.; Nova, E.; Marcos, A.; Polanco, I.; Ribes-Koninckx, C.; Ortigosa, L.; Izquierdo, L.; **Sanz, Y.** The HLA-DQ2 genotype selects for early intestinal microbiota composition in infants at high risk of developing coeliac disease. Gut. 2016 Mar. DOI: 10.1136/gutjnl-2014-306931.

46. Moya-Pérez A, Neef A, **Sanz Y.** *Bifidobacterium pseudocatenulatum* CECT 7765 Reduces Obesity-Associated Inflammation by Restoring the Lymphocyte-Macrophage Balance and Gut Microbiota Structure in High-Fat Diet-Fed Mice. PLoS One. 2015 Jul 10;10(7):e0126976. doi: 10.1371/journal.pone.0126976.

47. De Palma G, Blennerhassett P, Lu J, Deng Y, Park AJ, Green W, Denou E, Silva MA, Santacruz A, **Sanz Y,** Surette MG, Verdu EF, Collins SM, Bercik P. Microbiota and host determinants of behavioural phenotype in maternally separated mice. *Nat Commun*. 2015 Jul 28;6:7735. doi: 10.1038/ncomms8735.

48. Cenit MC, Olivares M, Codoñer-Franch P, **Sanz Y.** Intestinal Microbiota and Celiac Disease: Cause, Consequence or Co-Evolution? Nutrients. 2015 Aug 17;7(8):6900-23. doi: 10.3390/nu7085314.

49. Moratalla A, Caparrós E, Juanola O, Portune K, Puig-Kröger A, Estrada L, Bellot P, Gómez-Hurtado I, Piñero P, Zapater P, González-Navajas JM, Such J, Sanz Y, Francés R. *Bifidobacterium pseudocatenulatum* CECT7765 induces an M2 anti-inflammatory transition in macrophages from patients with cirrhosis. J Hepatol. JAN 2016. pii: S0168-8278(15)00592-9. doi:10.1016/j.jhep.2015.08.020.

50. Galipeau HJ, McCarville JL, Huebener S, Litwin O, Meisel M, Jabri B, **Sanz Y,** Murray JA, Jordana M, Alaedini A, Chirdo FG, Verdu EF. Intestinal Microbiota Modulates Gluten-Induced Immunopathology in Humanized Mice. Am J Pathol. 2015 Oct 3. pii: S0002-9440(15)00476-9. doi: 10.1016/j.ajpath.2015.07.018.

51. Fernández-Murga ML, **Sanz Y.** Safety Assessment of *Bacteroides uniformis* CECT 7771 Isolated from Stools of Healthy Breast-Fed Infants. PLoS One. 2016 Jan 19;11(1):e0145503. doi: 10.1371/journal.pone.0145503.

52. Silano M, Agostoni C, **Sanz Y,** Guandalini S. Infant feeding and risk of developing celiac disease: a systematic review. BMJ Open. 2016 Jan 25;6(1):e009163. doi: 10.1136/bmjopen-2015-009163.

53. Benítez-Páez A, Portune KJ, **Sanz Y.** Species-level resolution of 16S rRNA gene amplicons sequenced through the MinION™ portable nanopore sequencer. Gigascience. 2016 Jan 28;5:4. doi: 10.1186/s13742-016-0111-z. eCollection 2016.

54. Benítez-Páez A, Moreno FJ, Sanz ML, **Sanz Y.** Genome Structure of the Symbiont *Bifidobacterium pseudocatenulatum* CECT 7765 and Gene Expression Profiling in Response to Lactulose-Derived Oligosaccharides. Front Microbiol. 2016 Apr 29;7:624.

55. Morris G, Berk M, Carvalho A, Caso JR, **Sanz Y**, Walder K, Maes M. The Role of the Microbial Metabolites Including Tryptophan Catabolites and Short Chain Fatty Acids in the Pathophysiology of Immune-Inflammatory and Neuroimmune Disease. Mol Neurobiol. 2017 Aug;54(6):4432-4451.

56. Morris G, Berk M, Carvalho AF, Caso JR, **Sanz Y,** Maes M. The role of microbiota and intestinal permeability in the pathophysiology of autoimmune and neuroimmune processes with an emphasis on Inflammatory Bowel Disease, Type 1 Diabetes and Chronic Fatigue Syndrome. Curr Pharm Des. 2016;22(40):6058-6075.

57. Slyepchenko A, Maes M, Machado-Veira R, Anderson G, Solmi M, **Sanz Y**, Berk M, Köhler CA, Carvalho AF. Intestinal dysbiosis, gut hyperpermeability and bacterial translocation: missing links between depression, obesity and type 2 diabetes? Curr Pharm Des. 2016;22(40):6087-6106.

58. Benítez-Páez, A, Gómez Del Pulgar EM, Kjølbæk L, Kirchner L, Astrup A, Hingstrup Larsen L, **Sanz Y**. Impact of dietary fiber and fat on gut microbiota re-modeling and metabolic health. Trends in Food Science & Technology. 2016, Volume 57 Part B, 201-212. http://dx.doi.org/10.1016/j.tifs.2016.11.001.

59. Kevin J. Portune, Martin Beaumont, Anne-Marie Davila, Daniel Tomé, François Blachier, **Yolanda Sanz**. Gut microbiota role in dietary protein metabolism and health-related outcomes: The two sides of the coin, Trends in Food Science & Technology, Volume 57, Part B, November 2016, Pages 213-232, ISSN 0924-2244, http://dx.doi.org/10.1016/j.tifs.2016.08.011.

60. Portune KJ, Benítez-Páez A, Del Pulgar EM, Cerrudo V, **Sanz Y**. Gut microbiota, diet and obesity-related disorders - the good, the bad and the future challenges. Mol Nutr Food Res. Mol Nutr Food Res. 2017 Jan;61(1).

61. Cenit MC, Nuevo IC, Codoñer-Franch P, Dinan TG, **Sanz Y.** Gut microbiota and attention deficit hyperactivity disorder: new perspectives for a challenging condition. Eur Child Adolesc Psychiatry. 2017 Mar 13. doi: 10.1007/s00787-017-0969-z.

62. Moya-Pérez A, Perez-Villalba A, Benítez-Páez A, Campillo I, **Sanz Y**. Bifidobacterium CECT 7765 modulates early stress-induced immune, neuroendocrine and behavioral alterations in mice. Brain Behav Immun. 2017 May 13. pii: S0889-1591(17)30157-5.

63. Cenit MC, **Sanz Y,** Codoñer-Franch P. Influence of gut microbiota on neuropsychiatric disorders. World J Gastroenterol. 2017 Aug 14;23(30):5486-5498.

64. Romaní-Pérez M, Agusti A, **Sanz Y.** Innovation in microbiome-based strategies for promoting metabolic health. Curr Opin Clin Nutr Metab Care. 2017 Nov;20(6):484-491.

65. Beaumont M, Portune KJ, Steuer N, Lan A, Cerrudo V, Audebert M, Dumont F, Mancano G, Khodorova N, Andriamihaja M, Airinei G, Tomé D, Benamouzig R, Davila AM, Claus SP, **Sanz Y,** Blachier F. Quantity and source of dietary protein influence metabolite production by gut microbiota and rectal mucosa gene expression: a randomized, parallel, double-blind trial in overweight humans. Am J Clin Nutr. 2017 Oct;106(4):1005-1019.

66. Agusti A, Moya-Pérez A, Campillo I, Montserrat-de la Paz S, Cerrudo V, Perez-Villalba A, **Sanz Y.** *Bifidobacterium pseudocatenulatum* CECT 7765 Ameliorates Neuroendocrine Alterations Associated with an Exaggerated Stress Response and Anhedonia in Obese Mice. Mol Neurobiol. 2017 Sep 18. doi:10.1007/s12035-017-0768-z.

67. Mulders RJ, de Git KCG, Schéle E, Dickson SL, **Sanz Y**, Adan RAH. Microbiota in obesity: interactions with enteroendocrine, immune and central nervous systems. Obes Rev. 2018 Jan 23. doi: 10.1111/obr.12661.

68. Flandroy L, Poutahidis T, Berg G, Clarke G, Dao MC, Decaestecker E, Furman E, Haahtela T, Massart S, Plovier H, **Sanz Y,** Rook G. The impact of human activities and lifestyles on the interlinked microbiota and health of humans and of ecosystems. Sci Total Environ. 2018 Feb 3;627:1018-1038.

69. Benítez-Páez, A.; **Sanz, Y.** Multi-locus and long amplicon sequencing approach to study microbial diversity at species level using the MinION™ portable nanopore sequencer. GigaScience, Volume 6, Issue 7, 1 July 2017, Pages 1–12, https://doi.org/10.1093/gigascience/gix043.

70. Olivares M, Walker AW, Capilla A, Benítez-Páez A, Palau F, Parkhill J, Castillejo G, **Sanz Y**. Gut microbiota trajectory in early life may predict development of celiac disease. Microbiome. 2018 Feb 20;6(1):36.

71. Agustí A, García-Pardo MP, López-Almela I, Campillo I, Maes M, Romaní-Pérez M, **Sanz Y.** Interplay Between the Gut-Brain Axis, Obesity and Cognitive Function. Front Neurosci. 2018 Mar 16;12:155.

72. Olivares M, Benítez-Páez A, de Palma G, Capilla A, Nova E, Castillejo G, Varea V, Marcos A, Garrote JA, Polanco I, Donat E, Ribes-Koninckx C, Calvo C, Ortigosa L, Palau F, **Sanz Y.** Increased prevalence of pathogenic bacteria in the gut microbiota of infants at risk of developing celiac disease: the PROFICEL study. Gut Microbes. 2018 Apr 19:1-19.

73. Gómez-Hurtado I, Zapater P, Portune K, Juanola O, Fernández-Iglesias A, González-Navajas JM, Gracia-Sancho J, **Sanz Y,** Francés R. Improved hemodynamic and liver function in portal hypertensive cirrhotic rats after administration of *B. pseudocatenulatum* CECT 7765. Eur J Nutr. 2018 May 10. doi: 10.1007/s00394-018-1709-y.

74. **Sanz Y,** Romaní-Perez M, Benítez-Páez A, Portune KJ, Brigidi P, Rampelli S, Dinan T, Stanton C, Delzenne N, Blachier F, Neyrinck AM, Beaumont M, Olivares M, Holzer P, Günther K, Wolters M, Ahrens W, Claus SP, Campoy C, Murphy R, Sadler C, Fernández L, Kamp JV. Towards microbiome-informed dietary recommendations for promoting metabolic and mental health: Opinion papers of the MyNewGut project. Clin Nutr. 2018 Jul 9. pii: S0261-5614(18)31209-3. doi:10.1016/j.clnu.2018.07.007.

75. Olivares M, Schüppel V, Hassan AM, Beaumont M, Neyrinck AM, Bindels LB, Benítez-Páez A, **Sanz Y,** Haller D, Holzer P, Delzenne NM. The Potential Role of the Dipeptidyl Peptidase-4-Like Activity From the Gut Microbiota on the Host Health. Front Microbiol. 2018 Aug 22;9:1900. doi: 10.3389/fmicb.2018.01900.

76. Rampelli S, Guenther K, Turroni S, Wolters M, Veidebaum T, Kourides Y, Molnár D, Lissner L, Benitez-Paez A, **Sanz Y**, Fraterman A, Michels N, Brigidi P, Candela M, Ahrens W. Pre-obese children's dysbiotic gut microbiome and unhealthy diets may predict the development of obesity. Commun Biol. 2018 Dec 7;1:222. doi: 10.1038/s42003-018-0221-5.

77. Blachier F, Beaumont M, Portune KJ, Steuer N, Lan A, Audebert M, Khodorova N, Andriamihaja M, Airinei G, Benamouzig R, Davila AM, Armand L, Rampelli S, Brigidi P, Tomé D, Claus SP, **Sanz Y.** High-protein diets for weight management: Interactions with the intestinal microbiota and consequences for gut health. A position paper by the My New Gut study group. Clin Nutr. 2018 Sep 20. pii:S0261-5614(18)32454-3.

78. Dinan TG, Stanton C, Long-Smith C, Kennedy P, Cryan JF, Cowan CSM, Cenit MC,van der Kamp JW, **Sanz Y**. Feeding melancholic microbes: MyNewGut recommendations on diet and mood. Clin Nutr. 2019 Oct;38(5):1995-2001. doi: 10.1016/j.clnu.2018.11.010. Epub 2018 Nov 17.

79. Wolters M, Ahrens J, Romaní-Pérez M, Watkins C, **Sanz Y**, Benítez-Páez A, Stanton C, Günther K. Dietary fat, the gut microbiota, and metabolic health – A systematic review conducted within the MyNewGut project. Clin Nutr. 2019 Dec;38(6):2504-2520. doi: 10.1016/j.clnu.2018.12.024. Epub 2018 Dec 24.

80. Kjølbæk L, Benítez-Páez A, Gómez Del Pulgar EM, Brahe LK, Liebisch G, Matysik S, Rampelli S, Vermeiren J, Brigidi P, Larsen LH, Astrup A, **Sanz Y**. Arabinoxylan oligosaccharides and polyunsaturated fatty acid effects on gut microbiota and metabolic markers in overweight individuals with signs of metabolic syndrome: A randomized cross-over trial. Clin Nutr. 2019 Feb 19. pii: S0261-5614(19)30030-5. doi: 10.1016/j.clnu.2019.01.012.

81. Sanchis-Chordà J, Del Pulgar EMG, Carrasco-Luna J, Benítez-Páez A, **Sanz Y**, Codoñer-Franch P. *Bifidobacterium pseudocatenulatum* CECT 7765 supplementation improves inflammatory status in insulin-resistant obese children. Eur J Nutr. 2019 Oct;58(7):2789-2800. doi: 10.1007/s00394-018-1828-5.

82. Delzenne NM, Olivares M, Neyrinck AM, Beaumont M, Kjølbæk L, Larsen TM, Benítez-Páez A, Romaní-Pérez M, Garcia-Campayo V, Bosscher D, **Sanz Y,** van der Kamp JW. Nutritional interest of dietary fiber and prebiotics in obesity: Lessons from the MyNewGut consortium. Clin Nutr. 2020 Feb;39(2):414-424. doi: 10.1016/j.clnu.2019.03.002. Epub 2019 Mar 9.

83. Benítez-Páez A, Kjølbæk L, Gómez Del Pulgar EM, Brahe LK, Astrup A, Matysik S, Schött HF, Krautbauer S, Liebisch G, Boberska J, Claus S, Rampelli S, Brigidi P, Larsen LH, **Sanz Y.** A Multi-omics Approach to Unraveling the Microbiome-Mediated Effects of Arabinoxylan Oligosaccharides in Overweight Humans. mSystems. 2019 May 28;4(4). pii: e00209-19. doi: 10.1128/mSystems.00209-19.

84. Hess AL, Benítez-Páez A, Blædel T, Larsen LH, Iglesias JR, Madera C, **Sanz Y,** Larsen TM; MyNewGut Consortium. The effect of inulin and resistant maltodextrin on weight loss during energy restriction: a randomised, placebo-controlled, double-blinded intervention. Eur J Nutr. 2020 Sep;59(6):2507-2524. doi: 10.1007/s00394-019-02099-x. Epub 2019 Oct 11.

85. Hess AL, Larsen LH, Udesen PB, **Sanz Y,** Larsen TM, Dalgaard LT. Levels of Circulating miR-122 are Associated with Weight Loss and Metabolic Syndrome. Obesity (Silver Spring). 2020 Mar;28(3):493-501. doi: 10.1002/oby.22704.

86. Gómez Del Pulgar EM, Benítez-Páez A, **Sanz Y.** Safety Assessment of *Bacteroides uniformis* CECT 7771, a Symbiont of the Gut Microbiota in Infants. Nutrients. 2020. Feb 20;12(2). pii: E551. doi: 10.3390/nu12020551.

87. Benítez-Páez A, Gómez Del Pugar EM, López-Almela I, Moya-Pérez Á, Codoñer-Franch P, **Sanz Y.** Depletion of *Blautia* species in the Microbiota of Obese Children Relates to Intestinal Inflammation and Metabolic Phenotype Worsening. mSystems. 2020 Mar 24;5(2). pii: e00857-19. doi: 10.1128/mSystems.00857-19.

88. Mahú I, Barateiro A, Rial-Pensado E, Martinéz-Sánchez N, Vaz SH, Cal PMSD, Jenkins B, Rodrigues T, Cordeiro C, Costa MF, Mendes R, Seixas E, Pereira MMA, Kubasova N, Gres V, Morris I, Temporão C, Olivares M**, Sanz Y,** Koulman A, Corzana F, Sebastião AM, López M, Bernardes GJL, Domingos AI. Brain-Sparing Sympathofacilitators Mitigate Obesity without Adverse Cardiovascular Effects. Cell Metab. 2020 May 11. pii: S1550-4131(20)30195-9; doi: 10.1016/j.cmet.2020.04.013.

89. Benítez-Páez A, Olivares M, Szajewska H, Pieścik-Lech M, Polanco I, Castillejo G, Nuñez M, Ribes-Koninckx C, Korponay-Szabó IR, Koletzko S, Meijer CR, Mearin ML, **Sanz Y.** Breast-Milk Microbiota Linked to Celiac Disease Development in Children: A Pilot Study From the PreventCD Cohort. Front Microbiol. 2020;11:1335. doi:10.3389/fmicb.2020.01335

90. González-Ramos S, Paz-García M, Fernández-García V, Portune KJ, Acosta-Medina EF, **Sanz Y,** Castrillo A, Martín-Sanz P, Obregon MJ, Boscá L. NOD1 deficiency promotes an imbalance of thyroid hormones and microbiota homeostasis in mice fed high fat diet. Sci Rep. 2020;10(1):12317. Published 2020 Jul 23.

91. Fernández-Murga ML, Olivares M, **Sanz Y.** *Bifidobacterium pseudocatenulatum* CECT 7765 reverses the adverse effects of diet-induced obesity through the gut-bone axis. Bone. 2020;141:115580. doi:10.1016/j.bone.2020.115580.

92. Berentsen B, Nagaraja BH, Teige EP, Lied GA, Lundervold AJ, Lundervold K, Steinsvik EK, Hillestad ER, Valeur J, Brønstad I, Gilja OH, Osnes B, Hatlebakk JG, Haász J, Labus J, Gupta A, Mayer EA, Benitez-Páez A, **Sanz Y**, Lundervold A, Hausken T. Study protocol of the Bergen brain-gut-microbiota-axis study: A prospective case-report characterization and dietary intervention study to evaluate the effects of microbiota alterations on cognition and anatomical and functional brain connectivity in patients with irritable bowel syndrome. Medicine (Baltimore). 2020 Sep 11;99(37):e21950. doi: 10.1097/MD.0000000000021950.

93. Hartstra AV, Schüppel V, Imangaliyev S, Schrantee A, Prodan A, Collard D, Levin E, Dallinga-Thie G, Ackermans MT, Winkelmeijer M, Havik SR, Metwaly A, Lagkouvardos I, Nier A, Bergheim I, Heikenwalder M, Dunkel A, Nederveen AJ, Liebisch G, Mancano G, Claus SP, Benítez-Páez A, la Fleur SE, Bergman JJ, Gerdes V**, Sanz Y**, Booij J, Kemper E, Groen AK, Serlie MJ, Haller D, Nieuwdorp M. Infusion of donor feces affects the gut-brain axis in humans with metabolic syndrome. Mol Metab. 2020 Sep 8:101076. doi: 10.1016/j.molmet.2020.101076.

94. Christensen L, Sørensen CV, Wøhlk FU, Kjølbæk L, Astrup A, **Sanz Y**, Hjorth MF, Benítez-Páez A. Microbial enterotypes beyond genus level: *Bacteroides* species as a predictive biomarker for weight change upon controlled intervention with arabinoxylan oligosaccharides in overweight subjects. Gut Microbes. 2020 Dec 15:1-16. doi: 10.1080/19490976.2020.1847627.

95. Mariani N, Borsini A, Cecil CAM, Felix JF, Sebert S, Cattaneo A, Walton E, Milaneschi Y, Cochrane G, Amid C, Rajan J, Giacobbe J, **Sanz Y,** Agustí A, Sorg T, Herault Y, Miettunen J, Parmar P, Cattane N, Jaddoe V, Lötjönen J, Buisan C, González Ballester MA, Piella G, Gelpi JL, Lamers F, Penninx BWJH, Tiemeier H, von Tottleben M, Thiel R, Heil KF, Järvelin MR, Pariante C, Mansuy IM, Lekadir K. Identifying causative mechanisms linking early-life stress to psycho-cardio-metabolic multi-morbidity: The EarlyCause project. PLoS One. 2021 Jan 21;16(1):e0245475. doi: 10.1371/journal.pone.0245475.

96. López-Almela I, Romaní-Pérez M, Bullich-Vilarrubias C, Benítez-Páez A, Gómez Del Pulgar EM, Francés R, Liebisch G, **Sanz Y.** *Bacteroides uniformis* combined with fiber amplifies metabolic and immune benefits in obese mice. Gut Microbes. 2021 Jan-Dec;13(1):1-20. doi: 10.1080/19490976.2020.1865706.

97. Benítez-Páez A, Hess AL, Krautbauer S, Liebisch G, Christensen L, Hjorth MF, Larsen TM, **Sanz Y;** MyNewGut consortium. Sex, Food, and the Gut Microbiota: Disparate Response to Caloric Restriction Diet with Fiber Supplementation in Women and Men. Mol Nutr Food Res. 2021 Feb 24:e2000996. doi: 10.1002/mnfr.202000996. Epub ahead of print.

98. Álvarez J, Manuel Fernández Real J, Guarner F, Gueimonde M, Rodríguez JM, Saenz de Pipaon M**, Sanz Y.** Gut Microbes and Health. Gastroenterol Hepatol. 2021 Feb 27:S0210-5705(21)00058-3. English, Spanish. doi: 10.1016/j.gastrohep.2021.01.009. Epub ahead of print.

99. Liébana-García R, Olivares M, Bullich-Vilarrubias C, López-Almela I, Romaní-Pérez M, **Sanz Y.** The gut microbiota as a versatile immunomodulator in obesity and associated metabolic disorders. Best Pract Res Clin Endocrinol Metab. 2021 May 1:101542. doi: 10.1016/j.beem.2021.101542. Epub ahead of print.

100. Romaní-Pérez M, Bullich-Vilarrubias C, López-Almela I, Liébana-García R, Olivares M, **Sanz Y.** The Microbiota and the Gut-Brain Axis in Controlling Food Intake and Energy Homeostasis. Int J Mol Sci. 2021 May 29;22(11):5830. doi: 10.3390/ijms22115830.

101. Fabersani E, Portune K, Campillo I, López-Almela I, la Paz SM, Romaní-Pérez M, Benítez-Páez A, **Sanz Y.** *Bacteroides uniformis* CECT 7771 alleviates inflammation within the gut-adipose tissue axis involving TLR5 signaling in obese mice. Sci Rep. 2021 Jun 3;11(1):11788. doi: 10.1038/s41598-021-90888-y.

102. Romaní-Pérez M, López-Almela I, Bullich-Vilarrubias C, Rueda-Ruzafa L, Gómez Del Pulgar EM, Benítez-Páez A, Liebisch G, Lamas JA, **Sanz Y.** *Holdemanella biformis* improves glucose tolerance and regulates GLP-1 signaling in obese mice. FASEB J. 2021 Jul;35(7):e21734. doi: 10.1096/fj.202100126R.

103. Agustí A, Campillo I, Balzano T, Benítez-Páez A, López-Almela I, Romaní-Pérez M, Forteza J, Felipo V, Avena NM, **Sanz Y.** *Bacteroides uniformis* CECT 7771 Modulates the Brain Reward Response to Reduce Binge Eating and Anxiety-Like Behavior in Rat. Mol Neurobiol. 2021 Jul 6. doi: 10.1007/s12035-021-02462-2.

104. Olivares M, Flor-Duro A, **Sanz Y.** Manipulation of the gut microbiome in gluten-intolerance. Curr Opin Clin Nutr Metab Care. 2021 Nov 1;24(6):536-542. doi: 10.1097/MCO.0000000000000791.

105. Liébana-García R, Olivares M, Rodríguez-Ruano SM, Tolosa-Enguís V, Chulia I, Gil-Martínez L, Guillamón E, Baños A, **Sanz Y.** The Allium Derivate Propyl Propane Thiosulfinate Exerts Anti-Obesogenic Effects in a Murine Model of Diet-Induced Obesity. Nutrients. 2022 Jan 19;14(3):440. doi: 10.3390/nu14030440.

106. **Sanz Y,** Olivares M. Tiny contributors to severe obesity inside the gut. Gut. 2022 Feb 8:gutjnl-2021-326781. doi: 10.1136/gutjnl-2021-326781. Epub ahead of print.

107. Hillestad EMR, van der Meeren A, Nagaraja BH, Bjørsvik BR, Haleem N, Benitez-Paez A, **Sanz Y**, Hausken T, Lied GA, Lundervold A, Berentsen B. Gut bless you: The microbiota-gut-brain axis in irritable bowel syndrome. World J Gastroenterol. 2022 Jan 28;28(4):412-431. doi: 10.3748/wjg.v28.i4.412.

108. Meisner A, Wepner B, Kostic T, van Overbeek LS, Bunthof CJ, de Souza RSC, Olivares M, **Sanz Y,** Lange L, Fischer D, Sessitsch A, Smidt H; MicrobiomeSupport Consortium. Calling for a systems approach in microbiome research and innovation. Curr Opin Biotechnol. 2022 Feb;73:171-178. doi: 10.1016/j.copbio.2021.08.003. Epub 2021 Aug 31.

109. López-Siles M, Camprubí-Font C, Gómez Del Pulgar EM, Sabat Mir M, Busquets D, **Sanz Y,** Martinez-Medina M. Prevalence, Abundance, and Virulence of Adherent-Invasive

Escherichia coli in Ulcerative Colitis, Colorectal Cancer, and Coeliac Disease. Front Immunol. 2022 Mar 10;13:748839. doi: 10.3389/fimmu.2022.748839.

110. Olmo R, Wetzels SU, Armanhi JSL, Arruda P, Berg G, Cernava T, Cotter PD, Araujo SC, de Souza RSC, Ferrocino I, Frisvad JC, Georgalaki M, Hansen HH, Kazou M, Kiran GS, Kostic T, Krauss-Etschmann S, Kriaa A, Lange L, Maguin E, Mitter B, Nielsen MO, Olivares M, Quijada NM, Romaní-Pérez M, **Sanz Y,** Schloter M, Schmitt-Kopplin P, Seaton SC, Selvin J, Sessitsch A, Wang M, Zwirzitz B, Selberherr E, Wagner M. Microbiome Research as an Effective Driver of Success Stories in Agrifood Systems - A Selection of Case Studies. Front Microbiol. 2022 Jul 4;13:834622. doi: 10.3389/fmicb.2022.834622.

111. Benítez-Páez A, Hartstra AV, Nieuwdorp M, **Sanz Y**. Species- and strain-level assessment using rrn long-amplicons suggests donor's influence on gut microbial transference via fecal transplants in metabolic syndrome subjects. Gut Microbes. 2022 Jan-Dec;14(1):2078621. doi: 10.1080/19490976.2022.2078621.

112. Lange L, Berg G, Cernava T, Champomier-Vergès MC, Charles T, Cocolin L, Cotter P, D'Hondt K, Kostic T, Maguin E, Makhalanyane T, Meisner A, Ryan M, Kiran GS, de Souza RS, **Sanz Y**, Schloter M, Smidt H, Wakelin S, Sessitsch A. Microbiome ethics, guiding principles for microbiome research, use and knowledge management. Environ Microbiome. 2022 Sep 30;17(1):50. doi: 10.1186/s40793-022-00444-y.

113. Rossini V, Tolosa-Enguis V, Frances-Cuesta C, **Sanz Y**. Gut microbiome and anti-viral immunity in COVID-19. Crit Rev Food Sci Nutr. 2022 Nov 16:1-16. doi: 10.1080/10408398.2022.2143476. Epub ahead of print.

114. Barone M, Garelli S, Rampelli S, Agostini A, Matysik S, D'Amico F, Krautbauer S, Mazza R, Salituro N, Fanelli F, Iozzo P, **Sanz Y**, Candela M, Brigidi P, Pagotto U, Turroni S. Multi-omics gut microbiome signatures in obese women: role of diet and uncontrolled eating behavior. BMC Med. 2022 Dec 27;20(1):500. doi: 10.1186/s12916-022-02689-3.

115. Liébana-García R, Olivares M, Francés-Cuesta C, Rubio T, Rossini V, Quintas G, **Sanz Y.** Intestinal group 1 innate lymphoid cells drive macrophage-induced inflammation and endocrine defects in obesity and promote insulinemia. Gut Microbes. 2023 Jan-Dec;15(1):2181928. doi: 10.1080/19490976.2023.2181928.

116. Agusti A, Lamers F, Tamayo M, Benito-Amat C, Molina-Mendoza GV, Penninx BWJH, **Sanz Y.** The Gut Microbiome in Early Life Stress: A Systematic Review. Nutrients. 2023 May 30;15(11):2566. doi: 10.3390/nu15112566.

117. Sessitsch A, Wakelin S, Schloter M, Maguin E, Cernava T, Champomier-Verges MC, Charles TC, Cotter PD, Ferrocino I, Kriaa A, Lebre P, Cowan D, Lange L, Kiran S, Markiewicz L, Meisner A, Olivares M, Sarand I, Schelkle B, Selvin J, Smidt H, van Overbeek L, Berg G, Cocolin L, **Sanz Y**, Fernandes WL Jr, Liu SJ, Ryan M, Singh B, Kostic T. Microbiome Interconnectedness throughout Environments with Major Consequences for Healthy People and a Healthy Planet. Microbiol Mol Biol Rev. 2023 Jun 27:e0021222. doi: 10.1128/mmbr.00212-22. Epub ahead of print.

118. Ramos-Garcia V, Ten-Doménech I, Vento M, Bullich-Vilarrubias C, Romaní-Pérez M, **Sanz Y,** Nobili A, Falcone M, Di Stefano M, Quintás G, Kuligowski J. Fast profiling of primary, secondary, conjugated, and sulfated bile acids in human urine and murine feces samples. Anal Bioanal Chem. 2023 Jun 20. doi: 10.1007/s00216-023-04802-8. Epub ahead of print.

119. Flor-Duro A, Olivares M, **Sanz Y.** Tracking microbiota fibre breakdown to treat NASH. News & wiews. Nat Microbiol. 2023 Aug;8(8):1382-1383. doi: 10.1038/s41564-023-01440-9.

120. **Sanz Y**. Turning cooperative bacteria into probiotics for human health. Nature 2023,620:283–284.doi.org/10.1038/d41586-023-02407-w

121. Romaní-Pérez M, Bullich-Vilarrubias C, López-Almela I, **Sanz Y.** The Ablation of Sensory Neurons Expressing the Nav1.8 Sodium Channel Improves Glucose Homeostasis and Amplifies the GLP-1 Signaling in Obese Female Mice. Mol Nutr Food Res. 2024 Feb;68(3):e2300474. doi: 10.1002/mnfr.202300474.

122. Mulder, R.H., Kraaij, R., Schuurmans, I.K., Frances-Cuesta, C., **Sanz, Y.,** Medina-Gomez, C., Duijts, L., Rivadeneira, F., Tiemeier, H., Jaddoe, V.W.V., Felix, J.F., Cecil, C.A.M., Early-life stress and the gut microbiome: A comprehensive population-based investigation. Brain Behav Immun. 2024 May;118:117-127. doi: 10.1016/j.bbi.2024.02.024.

123. Bullich-Vilarrubias C, Romaní-Pérez M, **Sanz Y.** Nav1.8-expressing neurons control daily oscillations of food intake, body weight and gut microbiota in mice. Commun Biol. 2024 Feb 22;7(1):219. doi: 10.1038/s42003-024-05905-3. PMID: 38388698; PMCID: PMC10883928.

124. Romaní-Pérez, M., López-Almela, I., Bullich-Vilarrubias, C., Evtoski Z., Benítez-Páez A, **Sanz Y.** *Bacteroides uniformis* CECT 7771 requires adaptive immunity to improve glucose tolerance but not to prevent body weight gain in diet-induced obese mice. Microbiome. 2024 Jun 6;12(1):103. doi: 10.1186/s40168-024-01810-3.

125. Tamayo M, Olivares M, Ruas-Madiedo P, Margolles A, Espín JC, Medina I, Moreno-Arribas MV, Canals S, Mirasso CR, Ortín S, Beltrán-Sanchez H, Palloni A, Tomás-Barberán FA, **Sanz Y**. How Diet and Lifestyle Can Fine-Tune Gut Microbiomes for Healthy Aging. Annu Rev Food Sci Technol. 2024 Jun;15(1):283-305. doi: 10.1146/annurev-food-072023-034458. PMID: 38941492.

126. Medina-Rodriguez EM, Martinez-Raga J, **Sanz Y**. Intestinal barrier, immunity and microbiome: partners in the depression crime. Pharmacol Rev. 2024. Aug 15;76(5):956-969. doi: 10.1124/pharmrev.124.001202.

127. Olivares M, Hernández-Calderón P, Cárdenas-Brito S, Liébana-García R, **Sanz Y**, Benítez-Páez A. Gut microbiota DPP4-like enzymes are increased in type-2 diabetes and contribute to incretin inactivation. Genome Biol. 2024 Jul 3;25(1):174. doi: 10.1186/s13059-024-03325-4. PMID: 38961511; PMCID: PMC11221189.

128. Carpio LE, Olivares M, Benítez-Paez A, Serrano-Candelas E, Barigye SJ, **Sanz Y**, Gozalbes R. Comparative Binding Study of Gliptins to Bacterial DPP4-like Enzymes for the

Treatment of Type 2 Diabetes Mellitus (T2DM). Int J Mol Sci. 2024 May 25;25(11):5744. doi: 10.3390/ijms25115744. PMID: 38891933; PMCID: PMC11171585.

129. Byndloss M, Devkota S, Duca F, Niess JH, Nieuwdorp M, Orho-Melander M, **Sanz Y,** Tremaroli V, Zhao L. The gut microbiota and diabetes: research, translation, and clinical applications - 2023 Diabetes, Diabetes Care, and Diabetologia Expert Forum. Diabetologia. 2024 Jun 24. doi: 10.1007/s00125-024-06198-1. Epub ahead of print. PMID: 38910152; Diabetes. 2024 Jun 24:dbi240028. doi: 10.2337/dbi24-0028; Diabetes Care. 2024 Jun 24:dci240052. doi: 10.2337/dci24-0052.

130. Larroya A, Tamayo M, Cenit MC, **Sanz Y**. Validity and Reproducibility of a Spanish EPIC Food Frequency Questionnaire in Children and Adolescents. Nutrients. 2024 Nov 7;16(22):3809. doi: 10.3390/nu16223809. PMID: 39599596; PMCID: PMC11597864.

131. Romaní-Pérez M, Líebana-García R, Flor-Duro A, Bonillo-Jiménez D, Bullich-Vilarrubias C, Olivares M, **Sanz Y.** Obesity and the gut microbiota: implications of neuroendocrine and immune signaling. FEBS J. 2024 Aug 19. doi: 10.1111/febs.17249. Epub ahead of print. PMID: 39159270.

132. Kostic T, Schloter M, Arruda P, Berg G, Charles TC, Cotter PD, Kiran GS, Lange L, Maguin E, Meisner A, van Overbeek L, **Sanz Y,** Sarand I, Selvin J, Tsakalidou E, Smidt H, Wagner M, Sessitsch A. Concepts and criteria defining emerging microbiome applications. Microb Biotechnol. 2024 Sep;17(9):e14550. doi: 10.1111/1751-7915.14550. PMID: 39236296; PMCID: PMC11376781.

133. Garrido-Romero M, Pazos F, Sánchez-Martínez E, Benito C, Gómez-Ruiz JÁ, Borrego-Yaniz G, Bowes C, Broll H, Caminero A, Caro E, Chagoyen M, Chemaly M, Fernández-Dumont A, Gisavi H, Gkrintzali G, Khare S, Margolles A, Márquez A, Martín J, Merten C, Montilla A, Muñoz-Labrador A, Novoa J, Paraskevopoulos K, Payen C, Withers H, Ruas-Madiedo P, Ruiz L, **Sanz Y,** Jiménez-Saiz R, Moreno FJ. Relevance of gut microbiome research in food safety assessment. Gut Microbes. 2024 Jan-Dec;16(1):2410476. doi: 10.1080/19490976.2024.2410476. Epub 2024 Oct 3. PMID: 39360551; PMCID: PMC11451283.

134. Agusti A, Molina-Mendoza GV, Tamayo M, Rossini V, Cenit MC, Frances-Cuesta C, Tolosa-Enguis V, Gómez Del Pulgar EM, Flor-Duro A, **Sanz Y**. *Christensenella minuta* mitigates behavioral and cardiometabolic hallmarks of social defeat stress. Biomed Pharmacother. 2024 Sep 23;180:117377. doi: 10.1016/j.biopha.2024.117377. Epub ahead of print. PMID: 39316970.

135. Tamayo M, Agusti A, Molina-Mendoza GV, Rossini V, Frances-Cuesta C, Tolosa-Enguís V, **Sanz Y.** *Bifidobacterium longum* CECT 30763 improves depressive- and anxiety-like behavior in a social defeat mouse model through the immune and dopaminergic systems. Brain Behav Immun. 2024 Dec 16;125:35-57. doi: 10.1016/j.bbi.2024.12.028. Epub ahead of print. PMID: 39694341

Project Grants as Principal Investigator or Coordinator (selected of the last 15 years)

1.Influence of dietary interactions and the intestinal microbial colonisation process of neonates and infants on the predisposition to coeliac disease, and risk-benefit balance of probiotic use in the postnatal period in animal models.
Proyecto CICYT AGL2007-66126-C03-01/ALI
Duration: Jan 2008 - Dec 2010.
120.000 €
Coordinator: Yolanda Sanz

2.Mechanisms of action of intestinal and probiotic bacteria in chronic inflammation processes.
Proyecto Ministerio Ciencia e Innovación; AGL2008-01440/ALI
Duration: 01/01/2009-31/12/2011.
157.300 €
Principal Investigator: Yolanda Sanz

3.Industrial research into diets and foods with specific characteristics for the elderly. SENIFOOD. Evaluation of a potential probiotic for coeliac disease.
Proyecto Ministerio Ciencia e Innovación; CENIT- 2009 Ref. CEN-20091006
Duration: 17/09/2009-13/04/2011
150.655,08 €
Principal Investigator: Yolanda Sanz

4.Development of new methodologies and emerging technologies to evidence the efficacy of foods with health properties for health-promoting foods for the reduction of risks of chronic pathologies in mid-life (HENUFOOD)
Proyecto Ministerio Ciencia e Innovación; CENIT- 2009 Ref. CEN-20101016
Duration: 25/10/2010 – 31/12/2014
389.769,49 €
Principal Investigator: Yolanda Sanz

5. Advances in the development of probiotics for immune and metabolic disorders.
Proyecto Ministerio Economía y Competitividad; AGL2011-25169.
Duration: 01/01/2012-31/12/2014
217.800 €
Principal Investigator: Yolanda Sanz

6. Probiotics for the treatment or prevention of gastro- and urological diseases.
Proyecto CDTI. Ref: IDI-20111529
Duration: 27/07/2011-31/07/2013
118.600 €
Principal Investigator: Yolanda Sanz

7.Industrial research into diets and foods with specific characteristics for the elderly. SENEFOOD. Study of the immunomodulatory properties of two probiotic strains.
Proyecto Ministerio Ciencia e Innovación; CENIT- 2009 Ref. CEN-20091006
Duration: 16/11/2012 – 15/05/2014.
60.258 €
Principal Investigator: Yolanda Sanz

8.Deciphering the role of the gut microbiome in metabolic, behavioural and mental alterations at critical stages of life.
Proyecto Ministerio Economía y Competitividad; AGL2014-52101-P.
Duration: 01/01/2015-31/12/2017
242.000 €
Principal Investigator: Yolanda Sanz

9.Microbiome Influence on Energy Balance and Brain Development-Function Put into Action to Tackle Diet-Related Diseases and Behavior-MyNewGut
CP-IP - Large-scale integrating project of the EU 7FP Ref: C-FOOD/3284, nº=613979.
Duration: 5 years; 01/12/2013- 30/11/2018
9 M€ (1.8 M€ coordinating group)
Coordinator: Yolanda Sanz

10.Identification of gut microbiome-based intervention strategies to reduce the risk of developing obesity, depression and their comorbidities. MICRObCOM
Proyecto Ministerio de Ciencia, Innovación y Universidades (MCIU); AGL2017-88801-P
Duration: 01/01/2018-31/12/2020
223.850,00
Principal Investigator: Yolanda Sanz

11. Ingredients and foods to reduce sugar consumption in the population - SWEETFOOD.
Proyecto CDTI-Convocatoria CIEN; Ref: CIEN IDI-20170847
Duration: 30/11/2017-31/12/2020
103.594 €
Principal Investigator: Yolanda Sanz

12. Microbiota mediating Vagal communication in Obesity- miVaO
MSCA-IF EU- H2020; Grant agreement No, 797297.
Duration 01/12/2018 a 30/11/2020
158.121,6 €
Principal Investigator: Marina Romaní Pérez
Coordinator: Yolanda Sanz

13. Towards coordinated microbiome R&I activities in the food system to support EU and international bioeconomy goals-MicrobiomeSupport.
Coordination and Support Action of the European Union's Horizon 2020 Program (grant agreement nº 818116)
Duration: 01/11/2018 - 31/10/2022
123.750,00 €
Principal Investigator: Yolanda Sanz

14. Controlling mIcRobiomes CircuLations for bEtter food Systems- Acronym: CIRCLES
Project of the European Union's Horizon 2020 Program (Grant Agreement nº818290)
Duration: 01/11/2018 a 31/10/2024 (prolonged due to COVID-19)
253.781,25 €
Principal Investigator: Yolanda Sanz

15. Investigation of the role of microbiota on the gut-brain axis using imaging technologies and clinical application.
Conselleria de Educación, Investigación, Cultura y Deporte. Ref: PROMETEO/2019/015.
Duration: 4 years from 01/01/2019 - 31/12/2022
232.129 €
Coordinator: Yolanda Sanz

16. Causative mechanisms & integrative models linking early-life-stress to psycho-cardio-metabolic multi-morbidity- EarlyCause.
Project of the European Union's Horizon 2020 Program; Grant Agreement nº848158.
Duration: 4 years; 01/01/2020 a 31/12/2023
398.427,50 €
Principal Investigator: Yolanda Sanz

17.Optimisation and validation of the production of new generation probiotics for obesity.
Programa "Valorización y Transferencia de Resultados de Investigación a las Empresasa" de la Agencia Valenciana de la Innovación (AVI) de la Generalitat Valenciana. Ref: INNVA1/2020/25.
Duration: 01/01/2020-31/12/2022.
145.765,81€
Principal Investigator: Yolanda Sanz

18. Influence of the gut microbiome on COVID-19 infection and the effectiveness of immunotherapy in cancer patients –BICOIN
Proyecto Intramural CSIC Ref: 202040E227
Duration 22/06/2020 a 22/06/2021
122.000 €
Principal Investigator: Yolanda Sanz

19. "Gut microbiome: susceptibility and immune response to COVID-19 infection". WP5: Immune response to infection and vaccination in COVID-19
PTI+ Salud Global CSIC. Código del Proyecto: SGL2103028.
Fondos del Plan de Recuperación, Transformación y Resiliencia de la EU- Next Generation EU
Duration 01/01/2021 - 31/12/2022
225.620 €
Principal Investigator: Yolanda Sanz; Coordinators: Margarita Del Val e Iñaki Comas

20. Deciphering how the gut Microbiota influences Innate Lymphoid Cells in obesity: MicroILCs: MSCA-IF EU- H2020; Grant agreement No 890545
Duration 01/01/2021 a 31/12/2022
160.932,48 €
Principal Investigator: Marta Olivares Sevilla
Coordinator: Yolanda Sanz

21. NeuroAging
Plataforma Interdisciplinar (PTI)+ CSIC.
Fondos del Plan de Recuperación, Transformación y Resiliencia de la EU- Next Generation EU
Duration 01/01/2021-31/12/2022
300.000 €
Principal Investigator: Yolanda Sanz; Coordinator: Juan Lerma

22. ChiLd MicroBes predict how to stay away from Obesity- CLiMB-OuT
EIT-FOOD; RIS Innova Action. Ref: EIT21249
Duration: 01/01/2021-31/12/2022.
652.461,00 € Total Budget-EIT-Funds 503.052,50 € (IATA 260.655,77 €)
Coordinator: Yolanda Sanz

23. Valorisation of an intestinal bacterium as a functional ingredient to promote the development of metabolic syndrome and diabetes. -BIOPRED
Programa "Valorización y Transferencia de Resultados de Investigación a las Empresasa" de la Agencia Valenciana de la Innovación (AVI) de la Generalitat Valenciana. Ref: INNVA1/2021/32.
Duration: 01/01/2021-30/09/2023.
331.776,76 €
Principal Investigator: Yolanda Sanz

24. Identification of immune and neuroendocrine pathways regulated by gut bacteria to help fight obesity - INEOB.
Ministerio de Ciencia e Innovación; Ref: PID2020-119536RB-I00
Duration: 01/09/2021-31/08/2024.
248.050,00 €
Principal Investigator: Yolanda Sanz

25. Glucoregulators derived from the gut microbiome to treat and prevent cardio-metabolic diseases –GLUCOBIOM.
Ministerio de Ciencia e Innovación; Ref. PDC2021-121659-I00
Duration: 01/12/2021-30/11/2023
149.500 €
Principal Investigator: Yolanda Sanz

26. Food ingredients to regulate the gut-brain axis and protect mental health- ALIBRAIN
Ministerio Ciencia e Innovación (MCIN) with funding from European Union NextGenerationEU (PRTR-C17.I1) and by Generalitat Valenciana Ref: AGROALNEXT/2022/049
Duration: 01/09/2022- 29/06/2025
222.870,00 € (118.600 € for PI1)
Principal Investigator 1: Yolanda Sanz; Principal Investigator 2: Santiago Canals

27. Superfood Biotech for the agronomic generation of new on-farm bio-enriched supplements. Application of biotechnological solution for microalgae-microorganism consortia.
Ministerio de Agricultura, Pesca y Alimentación. Ref. 20190020009712
Duration: 25/11/2022-01/03/2025
114.928,43 €
Principal Investigator: Yolanda Sanz

28. Centros de Excelencia Severo Ochoa.
Ministerio de Ciencia e Innovación; Ref: CEX2021-001189-S
Duration: 01/01/2023 a 31/12/2026.
4 M€ (para todo el centro IATA)
Principal Investigator: Amparo Querol; Garante: Yolanda Sanz

29. Advanced tools for integration and synergistic interconnection of microbiomes in resilient food systems. TRIBIOME
Project of the European Union's Horizon Europe Program; Grant Agreement 101084485
Duration: 4 years; 01/01/2023 - 31/12/2027
415.357,24 €
Principal Investigator: Yolanda Sanz

30. White matter in alcohol use disorders: a new target of the gut-brain axis
Conselleria de Educación, Investigación, Cultura y Deporte.PROMETEO Ref. CIPROM/2022/15.
Duration: 4 years; 01/01/2023-31/12/2026
599.503,00 €
Principal Investigator 1: Santiago Canals; Principal Investigator 2: Yolanda Sanz

31. Biotics to promote healthy dietary intake - BITASAL
Programa "Valorización y Transferencia de Resultados de Investigación a las Empresasa" de la Agencia Valenciana de la Innovación (AVI) de la Generalitat Valenciana. Ref: INNVA1/2023/24.
Duration: 01/01/2023-31/12/2025
381.256,67 €
Principal Investigator: Yolanda Sanz

32. Metabolic Diseases: Epidemics of the 21st Century.
Proyecto CSIC Science 4 Policy. Ref. S4P-2024-01
Duration:15/01/2024 – 30/04/2024
1000 €
Coordinator: Germán Perdomo; Principal Investigator-IATA: Yolanda Sanz

33. Network for Human Microbiota Applied to Health – MidAS. Redes Temáticas de Investigación; AEI/MCIU. Ref: RED2022-134934-T
18.000 €
Coordindator: Enrique Carrillo; IP-IATA: Yolanda Sanz
2023-2024

34.Decoding micro-host interactions safeguarding metabolic health MINDMET.
AEI/MCIU. Ref: PID2023-150693OB-I00.
01/09/2024-31/12/2027.
318.750 €
IP1: Yolanda Sanz; Co-IP: Marina Romaní

35. Promoting transfer to the agri-food and health sectors
Complementary Actions Generalitat Valenciana (GVA); Ref. INNACC/2024/20
Duration: 01/01/2024- 31/12/2026.
104.758,36 €
IP: Yolanda Sanz

36. Glucoregulatory role of gut microbes through GLP-1 signaling
EFSD and Boehringer Ingelheim European Research Program on "Multi-System Challenges in Diabetes, Obesity and Cardiometabolic Disease" 2024
100.000 €
2 years

Coordinator: Y. Sanz; Co-IPs: V. Tremaroli and M. Romaní

Conferences as Invited Speaker (selected from last 15 years)

1. Sanz Y. Gut microbiota, energy balance and obesity: is the enemy within? Invited Speaker. II Congress of the Spanish Federation of Societies of Nutrition, Food and Dietetics (FESNAD) 3-5 March 2010, Barcelona.

2. Sanz Y. Nutrition and Health Claims on Food Supplements: Current and Future Status. Invited Speaker. AEFI Symposium (Spanish Association of Pharmacists of the Pharmaceutical Industry). 25-26 May, 2010, Madrid.

3. Sanz Y. Evaluation of Probiotic and Prebiotic Health Claims in Europe. Invited Speaker. International Scientific Conference- Probiotics and Prebiotics. 15-17 June, 2010, Kosice, Slovakia.

4. Sanz Y. Probiotic Health Claim Rejections.Learning Points for Successful Health Claim Submissions. Invited Speaker. Probiotic Regulatory Workshop. 18. June, 2010, Kosice, Slovakia

5. Sanz Y. Microbiota and Celiac disease. Invited Speaker. International Celiac Disease Conference. AOECS. 18 September 2010. Valencia.

6. Sanz Y. Health benefits of interest. Regulatory considerations. Safety considerations. Invited Speaker. Probiotic Workshop. Atlanta, GA. 24 Sept 2010.

7. Sanz, Y. Regulatory environment in the European Union. Invited Speaker. 2nd World Congress on Immunity Ingredients. Malta, 27-28 October, 2010.

8. Sanz, Y, Santacruz, A. Obesity, immunity and gut microbes: is there a rational for nutritional intervention? Invited Speaker. 2nd World Congress on Immunity Ingredients. Malta, 27-28 October, 2010.

9. Sanz Y. Are probiotics growth promoters on humans? Invited Speaker. The 21st European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) /27th ICC (International Congress of Chemotherapy) 2011. 7-10 Milan, Italy.

10. Sanz Y. Science and guidelines: 10th years of FAO guidelines. Invited Speaker. 6th Probiotics, Prebiotics and New Foods Congress. Sept 11-13, 2011. Rome.

11. Sanz Y. Gut microbes and gliadin interactions in celiac disease pathogenesis. Invited Speaker. 6th Probiotics, Prebiotics and New Foods Congress. Sept 11-13, 2011. Rome.

12. Sanz Y. Criteria for substantiation of health claims for foods. Invited Speaker. 4th Workshop on Risk Assessment: Scientific assessment of health claims on food. Catalan Food Safety Agency. Government of Catalonia. Barcelona, 17 November, 2011.

13. Sanz Y. Current status of clinical studies for claim submission. The new EFSA guidelines for the elaboration of studies. Invited lecture. Invited Speaker. Conference on Application of the regulatory framework for food and natural products in the pharmaceutical and food market. Spanish Association of Pharmaceutical Industry Pharmacists (AEFIC). Madrid 15 Feb, 2012.

14. Sanz Y. Intestinal dysbiosis in coeliac disease: is there a role for probiotics? Invited Speaker. 3rd TNO Beneficial Microbes Conference. 26-28 March 2012. The Netherlands.

15. Sanz Y. Host genetics and gut microbiota: new opportunities to reduce disease risk. Invited Speaker. International Workshop "Uncovering strategies to benefit from our gut microbiota: probiotics and prebiotics". Valencia, Spain, 18 April. 2012.

16. Sanz Y. Evaluation of health claim applications Article 13.1. EFSA Guidelines on criteria for substantiation of claims. Invited Speaker. Workshop on Regulation (EU) No 432/2012. List of authorised health claims made on foods other than those referring to the reduction of disease risk and to children's development and health. Ministry of Health, Social Services and Equality. Madrid, 19 June 2012.

17. Sanz Y. Scientific criteria to establish health benefits of foods. Invited Speaker. 12th International Nutrition & Diagnostics Conference-INDC2012. Prague, 27-29 September, 2012.

18. Sanz Y. Intestinal microbiota and coeliac disease risk. Session on Health Benefits of Foods. Invited Speaker. 12th International Nutrition & Diagnostics Conference- – INDC2012. Prague, 27-29 September, 2012.

19. Sanz Y. Microbiota and coeliac disease. Session on Gut microbiota and disease. Invited Speaker. International Coeliac Disease Scientific Conference. Helsinki, Finland. 6-8 September, 2012.

20. Sanz Y. Intestinal microbiota, probiotics and risk of coeliac disease. Invited Speaker. V International Symposium on Continuing Education Coeliac Disease, present and future. Madrid, 14 March, 2013.

21. Sanz Y. Understanding the role of gut microbiota in coeliac disease. Invited Speaker. 7th International Yakult Symposium. The intestinal microbiota and probiotics: Exploiting their influence on health. London. 22-13 Abril, 2013.

22. Sanz Y. Do Probiotics Have a Future in Celiac Disease Prevention? Session Title: Are We Ready to Prevent Celiac Disease? Invited Speaker. Digestive Disease Week (DDW®). Orlando, Florida, May 18-21, 2013.

23. Sanz Y. Session V: "Microbes and Celiac". Invited Speaker. 15th International Celiac Disease Symposium (ICDS), September 22 to 25, 2013, Chicago, Illinois.

24. Sanz Y. Gut microbiota and obesity: Who can help? Invited Speaker. IUNS 20th International Congress of Nutrition. September 15-20, 2013, Granada (Spain).

25. Sanz Y. Microbiome, inflammation and obesity: a high-risk trio. Invited Speaker. Workshop on the Microbiome. Valencian Foundation for Advanced Studies, 25 de February, 2014, Valencia.

26. Sanz Y. The Microbiome, Microflora in Gut as an Independent Organ, Essential Symbiotic Actors for Human Life. Invited Speaker. Gut Health Summit. Brussels, Belgium, 4 November 2014.

27. Sanz Y. Exploring gut microbiota-diet interactions to tackle obesity. Invited Speaker. Probiotic Conference 2015. Prebiotics, Probiotics & Microbiota, 3-5 February, Amsterdam, The Netherlands.

28. Sanz Y. Diet and the gut microbiome. Invited Speaker. The Society for General Microbiology Annual Conference 2015. Birmingham, 30 March–2 April 2015.

29. Sanz Y. Exploring the role of gut microbiome in energy balance: the MyNewGut project. Invited Speaker. Microbiome Forum: Europe taking place in London, UK on 7th-8th May 2015.

30. Sanz Y. Celiac disease and gut microbiota. Invited Speaker. 8th Congress on Probiotics, Prebiotics and New Foods. Roma. 13-15 Septiembre, 2015.

31. Sanz Y. MyNewGut Project: microbiome's role in obesity and behavior. Invited Speaker. 38th SOMED Congress, Society for Microbial Ecology and Disease. Verona, 11-13 October, 2015.

32. Sanz Y. Gut microbiota and obesity: European project MyNewGut. Invited Speaker. Nutri Supplement Conference. AFINUR, Barcelona 20, November 2015.

33. Sanz Y. EFSA update on the scientific requirements for the substantiation of health claims related to immunity, pathogens and gastrointestinal functions. Invited Speaker. Probiota Conference, 2-4 February, 2016. Amsterdam.

34. Sanz Y. Human microbiome: MyNewGut project. Workshop on plants microbiome research and innovation. Invited Speaker. European Commission. Brussels, 22 February 2016.

35. Sanz Y. Optimizing the host-microbiota partnership to tackle obesity: the EU MyNewGut project. Invited Speaker. Better Foods for Better Health: Microbiota & Health: The challenges of a promising approach. Fondation Mérieux. Veyrier-du-Lac – France, 6 -8 April 2016.

36. Sanz Y. EFSA update on gut and immune related health claims. Invited Speaker. OECD Workshop: "The Microbiome, Diet and Health: Assessing Gaps in Science and Innovation". Brussels, 30-31 May 2016.

37. Sanz Y. Interplay between gut microbiota and diet in celiac disease. Invited Speaker. 30th Meeting Working Group on Prolamin Analysis and Toxicity. Valencia, Spain. 22-24 September, 2016.

38. Sanz Y. The era of the microbiome in the obesity epidemic. Speaker and Moderator of Round Table. Nutraceuticals Europe Summit & Expo. 22-23 Febrero 2017, Madrid.

39. Sanz, Y. The gut microbiome composition and dynamics in celiac disease. Invited Speaker. International Conference "The gluten-free diet; classic coeliac disease and more". 24 March 2017, London.

40. Sanz, Y. Regulatory challenges in the drug-food continuum. Invited Speaker. IMI Statake holder Forum 2017 – Microbiome Forum. 18-19 Octuber 2017, Brussels (Belgium).

41. Sanz, Y. A different microbiota in CD: Cause or consequence? Invited Speaker. ESPGHAN masterclass in coeliac disease. 08-10 March, 2018. Valencia, Spain.

42. Sanz Y. The role of gut microbiota in obesity and mood. Invited Speaker. 25th European Congress on Obesity. 23-26 May, 2018, Viena, Austria.

43. Sanz Y. Exploring Diet-Microbiome Interactions to Predict and Prevent. Invited Speaker. International Human Microbiome Conference 26-28 June 2018, Killeray, Ireland.

44. Sanz Y; The microbiota at the core of improved nutrition and food systems. Invited Speaker. Workshop Food Safety and Health Diets; Casina Pio IV ; Vatican City, Rome, 12-13Septiembre, 2018.

45. Sanz Y. Tackling metabolic health through diet-microbiome-host alliances. Invited Speaker. The EMBO | EMBL Symposium: The Human Microbiome, 16- 19 September 2018, Heidelberg, Germany.

46. Sanz Y. Microbiota and coeliac disease: studies in at risk cohorts. Invited Speaker. 10th Confrence on Probiotics, Prebiotics and New Foods, Nutraceuticals and Botanicals for nutrition and Human and Microbiota Health. Roma. 8-10 September, 2019.

47. Sanz Y. Food, gut bugs and health - the Microbiome. Invited Speaker. Policy Conference. European Research and Innovation Days. Brussels, 24 - 26 September, 2019.

48. Sanz Y. Dietary fat, the gut microbiota, and metabolic health. Invited Speaker. 17th Euro Fed Lipid Congress and Expo. Sevilla. 20-23 October 2019.

49. Sanz Y Dietary recommendations for optimizing microbiome functions contributing to human health. Invited speaker. Microbiota and the gut-brain connection: A new frontier in neurogastroenterology. International Webinar. European Society of Neurogastroenterology and Motility, 15 June 2021

50. Sanz Y. "Diet, gut microbiota and obesity: time for solutions". Invited Speaker. Agriculture & Health Summit- Cultivating Gut Health at the Cross-Roads of Food and Medicine, 11-13 October, 2021, Nebraska.

51. Sanz Y. "How to exploit multi-faceted action of intestinal bacteria to prevent obesity". Invited speaker. 9th Microbiome & 6th Probiotics R&D & Business Collaboration Forum Europe. 26-27th October 2021.

52. Sanz Y. "Discovering the trends of the future: Personalized nutrition". Invited speaker. EIT Food Journalism Awards in Agri-Food Innovation and Sustainability, 14 February 2021.

53. Sanz Y. Microbiome and regulatory science: role in the healthy dietary transition. Invited speaker. World of Microbiome 2022 Conference, 28-30 April 2022, Vienna, Austria.

54. Sanz Y. The Gut Microbiome and the Diet at the Roots of Obesity. Invited speaker. Foods for thought Seminar Series of the Canadian Centre for Agri-Food Research in Health and Medicine (CCARM), 11 October 2022, University of Manitoba, Canadá.

55. Sanz Y. Regulatory framework requirements to support the implementation of microbiome innovations. Invited speaker. FAO Science and Innovation Forum- Side-Event "Microbiome research for a sustainable, healthy and safe food system", 12 Oct 2022.

56. Sanz Y. Gut microbiota as an immunomodulatory agent in obesity and comorbidities. Invited Speaker. XVIII National Congress of the Spanish Society for the Study of Obesity SEEDO. Barcelona,16-18 November, 2022.

57. Sanz Y. Gut microbes - many ways of speaking to the human host. Invited speaker. X Bioinformatics and Genomics Symposium, Valencia, 15-16 December 2022.

58. Sanz Y. Glucoregulators based on the intestinal microbiome. Invited Speaker. 1st Conference on Innovation in Laboratory Medicine -iMEDLAB. AEBM-ML, 4-5 May, Hospital Universitario de Fuenlabrada, Madrid.

59. Sanz Y. The gut microbiota role in the immune-metabolic axis in obesity. Invited Speaker. Congress of the Spanish Society of Immunology. 10-14 May, Bilbao.

60. Sanz Y. The role of the gut microbiome in celiac disease. Invited speaker. State-of-the-Art Forum on Advances in Inflammatory Bowel Disease, Celiac Disease and Food Allergies. The 3rd Cleveland International Digestive Education and Sciences (IDEAS) Symposium, 6-8 Sept. Florence, Italy.

61. Sanz Y. Intestinal bacteria and diet: a toolkit for obesity prevention. Chair and Invited speaker. Session: "Gut Microbiome and diet in malnutrition". 12th Confrence on Probiotics, Prebiotics and New Foods. 6-19 Sept 2023, Rome, Italy.

62. Sanz Y. Gut microbiome and diet in obesity and T2D. Invited speaker. Workshop sponsored by Novo Nordisk Foundation on the 59th Annual Meeting of the European Association for the Study of Diabetes (EASO), 2-6 October, 2023, Hamburg, Germany.

63. Sanz, Y. Panelist of the FAO Webinar "Impact of dietary chemicals on the gut microbiome and health - A food safety perspective". 12 June 2023.

64. Sanz Y. “The role of the gut microbiota in the neuroendocrine and immune routes driving obesity”. Invited speaker. University of Gothenburg, Sweden, 20th December 2023.

65. Sanz Y. “Microbiota y Obesidad”. Invited speaker. XV Workshop Sociedad Española de Microbiota, Probioticos y Prebióticos. 21-23, Feberro 2024, Sevilla, Spain.

66. Sanz Y. “The potential role of pre/pro/post-biotics in managing obesity”. Invited Speaker. 10th International Human Microbiome Consortium Congress 22-25th of June 2024, Rome, Italy

Patents and Knowledge Transfer (selected patents licensed and under exploitation)

1. Sanz, Y.; Sánchez, E.; Medina, M.; de Palma, G.; Nadal, I.
“Microorganisms for improving the health status of individuals with disorders related to gluten ingestion”
International Application No. PCT/ES2008/070243; National Patent; Date of application: 24-12-2007 (Nº P200703427).
Publication number of the concession: ES234349931 B1.
Extension to Europe requested (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK y TR), EEUU y Asia.
Owning entity: CSIC
Licensed and under exploitation

2. Sanz, Y.; Santacruz A.; Gauffin, P.
"Bifidobacterium CECT 7765 and its use in the prevention and/or treatment of overweight, obesity and associated pathologies "
Application No. P201031811; National Patent; Date of application: 07-12-2010; PCT/ES2011/070838
Extension requested in Argentina, Australia, Brasil, Canadá, China, Eurasia, Europe, Spain, Japan, South Korea, Mexico, New Zealand, Panama, Taiwan, USA and Venezuela.
Owning entity: CSIC
Licensed

3. Sanz Y.; Gauffin-Cano, P.; Santacruz, Y.A; Moya, A.; Laparra. M.
Bacteroides CECT 7771 and its use in the prevention and treatment of overweight, obesity, metabolic and immunological disorders.
Application No. P201230796; Date of application: 25-05-2012; Date of concession: 01-10-2014
PCT/ES2013/070309; Extension requested to EU, USA, Canada.
Owning entity: CSIC
Option of Licence

4.Sanz Y.; Gómez del Pulgar, Eva Mª; Agustí, A; Cenit MC;
“Christensenella minuta strain and its use”
Application No. 201831153. Date of application 28-11-2018; Ref: ES201831153.
PCT/EP2019/082793; Date: 27-11-2019; WO 2020/109414; Date granted by the OEPM:05/10/2020.
Owning entity: CSIC
Extension requested to EU; USA, Canada, Japan, China, South Korea, Brazil, Australia, Israel, Mexico.
Licensed

5.Sanz Y.; López-Almela, I; Gómez del Pulgar, Eva Mª; Benítez-Páez, A; Romaní-Pérez, M;
"*Phascolarctobacterium faecium* for the prevention and treatment of obesity and its co-morbidities"
Application No. 201831166. Date of application 30-11-2018.
PCT/ES2019/070821; Date of application PCT: 02/12/2019; Extension requested to EU, USA, Canada.
Owning entity: CSIC
Licensed

6.Sanz Y.; López-Almela, I; Gómez del Pulgar, Eva Mª; Benítez-Páez, A; Romaní-Pérez, M;
"Bacteria of *Holdemanella* sp and their use"
Application No. 201831282. Date of application 26/12/2018
PCT/ES2019/070882; Date of application PCT: 24/12/2019;
Extension requested to USA, CA, USA, Mexico, China
Owning entity: CSIC; Licence under negotiation.

7. Sanz Y, Agustí F, Rossini V, Tolosa Enguis V, Francés C, Flor A, Molina G.
"Bifidobacterium longum strain and its uses"
Application No. P202330135; Ref: ES1641.1807; Date of application: 22/02/2023
Owning entity: CSIC
Licensed

Expert of committees and project evaluation panels of funding agencies

1. Expert of the Panel on Nutrition, Dietetic Products and Allergies (NDA) of the European Food Safety Authority (EFSA) from 2009 to 2018 and Vice-President from 2012 to 2015.

2. Expert of the Panel on Feed Additives and Products (FEEDAP) of the European Food Safety Authority (EFSA) and of the Working Group on Microbiology of FEEDAP 2018-2023.

3. Expert of the Working Groups on Novel Foods and Health Claims of the Panel on Nutrition, Dietetic Products and Allergies (NDA) of EFSA in 2009 to 2019.

4. Expert of the Working Groups on Claims/Gut Immunity and Complementary Feeding/Infant Formula of the NDA Panel from 2012 to 2015.

5. Expert of the Working Group on Guidance Review of the Scientific Committee and the Emerging Risks Unit of EFSA, 2018.

6. Co-chair of the Nutrition and Health Group of the European Food for Life Platform, 2016-2023.

7. Collaborator of the AEI/MICIU for International projects 2022-23.

8. Evaluator of projects from national agencies: ANEP, MCIU, ISCIII, etc.

9. Evaluator of projects from international agencies: EU DG-Research, SNSF, Thrasher Research Fund-USA, German Research Foundation, Novo Nordisk Foundation, Alberta

Heritage Foundation for Medical Research, Czech Science Foundation, Dutch Digestive Foundation, Danish Council for Strategic Research, University of Nebraska-Lincoln, Institute of Agriculture and Natural Resources, Diabetes UK , INRAE, "Fondation pour l cherche Médicale", German Pediatric Society, German Research Foundation, Swiss National Science Foundation, Swiss National Science Foundation,