PERSONAL INFORMATION

Manuela Costanzo

ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development
Department for Sustainability
Via Anguillarese 301, 00123 Rome (RM) Italy

+390630484120 +393334391369

manuela.costanzo@enea.it

https://bioagro.sostenibilita.enea.it/en/user/2895

Sex Female | *Date of birth* 25/06/1984 | *Nationality* Italian

Enterprise	University	EPR
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
☐ Mid-Management Level	☐ Associate Professor	☒ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

From 2021 to present

Research scientist, Laboratory Agrifood Sustainability, Quality and Safety

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, https://www.enea.it/en

- Researcher of the laboratory activities focused on validation and application of diagnostic methods for food safety; qualification of the production; analysis and assessment of microbiological transformations in production processes, processing, preservation and packaging; identification and quantification of components and quality markers in order to demonstrate authenticity and origin of the agricultural food productions and to ensure their traceability.

From July 2020 to May 2021

Research grant (Prot.ENEA/2020/33631/PER-RESC)

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, https://www.enea.it/en

- Genomics and bioinformatics applied to omics sciences in the vegetable field

From April 2012 to March 2018

Research grant (Prot. P-34/12)

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, https://www.enea.it/en

- Development of a novel mixture of probiotics and anti-inflammatory molecules for IBD treatment

EDUCATION AND TRAINING

2019 Master in Dietology and Nutrition
IAF Institute, Rome, Italy

2012 Ph.D. in Pediatric Science
University La Sapienza, Rome, Italy

2009 Habilitation in Biology
University Tuscia, Viterbo, Italy

2008 Master Degree in Genomic Biotechnologies
University La Sapienza, Rome, Italy

WORK ACTIVITIES

Invited presentations

Omega 3, L. reuteri and vitamin D collaborate in diminishing gut inflammation." International Scientific Conference on Probiotics and Prebiotics – IPC2016. 21-23 June 2016 - Budapest, Hungary.

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s) English, B1

Job-related skills

- In vivo experience on laboratory animals.
- Biomolecular methodologies.
- Microbiology.
- Histopathology.
- Fermentation techniques of bacteria in microalgae.
- Culture techniques and material handling in an anaerobic hood.
- Technical skills and competences in the plant sector.
- I have the disciplinary methods and knowledge of the regulations and deontological and bioethical issues.
- I am able to draw up technical-scientific reports

Digital skills

- Microsoft Office, European Driving License – ECDL; scientific data analysis and graphing software (SigmaPlot, PRISM – GraphPad); statistic software (INSTAT, SigmaStat); Google Gmail, Google Drive; Collaboration Tools (MS Teams, Zoom); Social medias (Facebook, Instagram, LinkedIn)

Other skills

- Good managerial sense, project and task management, assumption of responsibility fulfilling objectives and deadlines

ADDITIONAL INFORMATION

Publications

Numero totale di pubblicazioni in peer-review journals : 11
Totale Impact Factor (IF): (average IF/paper) 4,98
Numero totale di citazioni 340 (Scopus)
H index 10 (Scopus)
Scopus ID: 37057174500; ORCID: https://orcid.org/0000-0003-2637-7810

- *Synergistic Action of Mild Heat and Essential Oil Treatments on Culturability and Viability of Escherichia coli ATCC 25922 Tested In Vitro and in Fruit Juice.*
  *Di Gregorio L, ...**Costanzo M,** ...et al.*
  Foods. 2022; 11(11):1615
- *Krill oil, Vitamin D and Lactobacillus reuteri cooperate to reduce gut inflammation*
  ***Costanzo M**, ...et al.*
  Beneficial Microbes. 2018 Apr 25;9(3):389-399
- *RIP3 and pMLKL promote necroptosis-induced inflammation and alter membrane permeability in intestinal epithelial cells.*
  *Negroni A, ...**Costanzo M**, ...et al.*
  Dig Liver Dis. 2017 Aug;S1590-8658(17)
- *NOD2 induces autophagy to control AIEC bacteria infectiveness in intestinal epithelial cells.*
  *Negroni ... **Costanzo M**, ...et al.*
  Inflamm Res. 2016 Oct;65(10):803-13
- *NOD2 is regulated by mir-320 in physiological conditions but this control is altered in inflamed tissues of patients with inflammatory bowel disease.*
  *Pierdomenico M, ...**Costanzo M**, ..et al.*
  Inflamm Bowel Dis. 2016 Jan 8

- *Krill oil reduces intestinal inflammation by improving epithelial integrity and impairing adherent-invasive Escherichia coli pathogenicity.*
  ***Costanzo M**, ...et al.*
  Dig Liver Dis. 2015 Sept 28
- *Lactoferrin prevents invasion and inflammatory response following E. coli strain LF82 infection in experimental model of Crohn's disease.*
  *Bertuccini L, **Costanzo M**, ..et al.*
  Dig Liver Dis. 2014 Mar 13; S1590-8658(14)00222-9
- *Dipotassium Glycyrrhizate Inhibits HMGB1-Dependent Inflammation and Ameliorates Colitis in Mice.*
  *Vitali R, ...**Costanzo M**, .. et al.*
  PLoS One. 2013 Jun 19;8(6):e66527. Print 2013
- *Characterization of adherent-invasive Escherichia coli isolated from pediatric patients with inflammatory bowel disease.*
  *Negroni A, **Costanzo M**, …et al.*
  Inflamm Bowel Dis. 2011 Oct 12
- *New insights into the pathogenesis of inflammatory bowel disease: transcription factors analysis in bioptic tissues from pediatric patients.*
  *Pierdomenico M, Stronati L, **Costanzo M**, ..et al.*
  J Pediatr Gastroenterol Nutr. Mar- 2011
- *MicroRNA-92 modulates K(+)Cl(-) co-trasporter KCC2 expression in cerebellar granule neurons.*
  *C. Barbato, …, **M. Costanzo**, ..et al.*
  J. Neuroc, 26-dec-2009

Projects

SIMBA (Sustainable innovation of microbiome applications in food system) (H2020, 2018-2023, GA No. 818431);
PACK-CHAIN (2021-2024), funded by MISE, application sector: “Agrifood”;
MISE (Esecuzione delle attività previste dalla Convenzione tra ENEA e il Ministero dello Sviluppo economico, Realizzazione di strumenti e iniziative sull'economia circolare a vantaggio dei consumatori ex art 5 D.M. 10 agosto 2020)
NEWCOTIANA “Developing Multipurpose Nicotiana Crops for Molecular Farming using New Plant Breeding Techniques ” (2018-2022; PI76.M0AV)

Other Relevant Information

Participant Microbial Resource Research Infrastructure Italian Node (MIRRI-IT), Working group Food microorganisms
Participant PNRR MIRRI-IT
Participant PNRR AGRITECH_Spoke9
Member of the AgroSpace Divisional Task Force (Determine no. 126/2021/SSPT-BIOAG)

Rome, 18/12/2022