

Dr Francesco Maurano short CV

Personal information

Francesco Maurano was born in Naples and live in Summonte (AV), he is married with a son
Hobby: caving, walk on mountains and photography.

Position

In 2001 he got her permanent position as Tecnologist at The Institute of Food Sciences, National Council of Research-CNR, Avellino.

Education/training

- ✓ 1991 Degree in Biological Science at the University Federico II of Naples
- ✓ 1991-1992 Postgraduate training at the “Dipartimento di Fisiologia Generala ed Ambientale” University of Naples “Federico II”
- ✓ 1992-1994 Scholarship CNR at the “Dipartimento di Produzioni Animali” University of Naples “Federico II”
- ✓ 1995 Scholarship CNR-FSE at the Institute of Food Science, CNR
- ✓ 1996-1998 Scholarship Telethon
- ✓ 1999-2000 Collaborator at the “Dipartimento di Pediatria” University of Naples “Federico II”

Qualifications

- ✓ Professional qualification of Biology
- ✓ Member to the Professional Register CNR

Current research interests

He Works as Technologist and performs activities in support of research at the Institute of Food Science (CNR-ISA). He actively collaborates in studies on celiac disease, focusing his interest in the development of an animal model capable of developing an intolerance to gluten. In particular, in recent publications have demonstrated the gluten's role in the development of diabetes in NOD mice and the possible development of intolerance in mice DQ8.

Assignments

- ✓ Access Port Manager GARR
- ✓ Responsible Safety Laboratory Cell Culture
- ✓ Responsible Safety Laboratory Preparations
- ✓ Technical Manager service Eduroam
- ✓ Head of IT department

Teaching assignments

- ✓ “Tecnico esperto nel trasferimento tecnologico nel settore agro-alimentare”
Federazione Coldiretti di Avellino
- ✓ “Normativa igienico sanitaria “
Istituto Professionale per i Serv. Alberghieri e della Ristorazione – Ariano Irp. (AV)

- ✓ “Gestione, strumenti e mezzi di controllo qualità” nel corso “ Tecnico in produzione e commercializzazione prodotti caseari “
Giunta Regionale della Campania
- ✓ “Addetto al controllo della qualità degli alimenti”
Istituto Professionale Statale per l’Industria e per l’Artigianato “A. Meucci”, Lioni (AV)
- ✓ “Inquinamento”
IFAP IRI S.C.P.A.

Participation in Scientific Projects

2013-2015 “Development analysis of toxicity in the mouse model” P.I.F. INTEGRANO Regione Campania

2011-2013 “Made in Italy Agroalimentare CISIA - Conoscenze Integrate per Sostenibilità e Innovazione del Made in Italy Agroalimentare

2011-2012 "Production of detoxified gluten for celiac disease patients following enzyme treatment of wheat flour" DAA-CNR

2010-2011 “Evaluation and development of probiotics with immunomodulatory and intestinal amelioration activities on a transgenic mouse model of food antigen hypersensitivity”, CNR-JSPS.

2008-2011 “New Polis” autorizzato e finanziato con Decreto Interministeriale 65/CONT/V/2008 - Delibera n. 180 del 28/01/2008- DGR n. 2130 - ex Art. 26 Legge n. 845/78

2007-2011 “Influence of the dietary history in the prevention of coeliac disease: possibilities of induction of tolerance for gluten in genetically predisposed children” EU-FP6-2005-FOOD4B

2006-2009 MEDeA (Mediterraneo ed Alimentazione) Progetto POR Campania 2000/2006 Misura 6.5 Azione B Lettera E.

2004-2006 “Analysis of toxicity profiles and technological parameters of minor cereals and other species suitable for growing agricultural to be allocated to the production of dietetic foods for celiac "Department of Pharmaceutical Sciences, University of Salerno, funded by CRAA (Consortium for Applied Research in Agriculture) of the Region of Campania

2005-2006 “Autoimmunità e intestino” PRIN 2004 – MIUR

2004-2005 "Development of an animal model of celiac disease" Strategic Project of the Ministry of Health. Objective 8.1.2 BS

2004-2005 “Damage mechanisms operating in the intestinal mucosa of celiac patients” PRIN 2003 – MIUR

2003-2006 Progetto Attuatore per la costituzione del " Centro Regionale di Competenza sulle Produzioni Agroalimentari".(CRdC, P.O.R. 2002-2006). **Protocollo n. 734/03 del 27/005/2003**

2002-2005 Progetto triennale MIUR: Safety Assessment in food and environment of genetically modified plants (SAFE), Metapontum Agrobios srl, Metaponto, (MT).

2002-2003 “Mechanisms of damage in celiac mucosa” PRIN 2001 – MIUR

2000-2001 “Autoimmunity and Celiac Disease: Gluten, induction of autoimmune phenomena and effector mechanisms of intestinal damage” PRIN 1999- MIUR

1989-1992 “Chemical and microbiological evaluation of pollution in water and sediments of two rivers in Campania Region, Italy” WHO Contract ICP/CEH 039-ITA 127(G) LJS/myr (MED POL PHASE II)

Main collaborations

- ✓ Department of Translational Medicine, section of Pediatrics, University Federico II of Naples
- ✓ Department of Immunology, Mayo Clinic College of Medicine, Rochester, MN USA

- ✓ European Laboratory for Food Induced Diseases and Department of Pediatrics, University "Federico II" of Naples, Naples, Italy
- ✓ Department of Biology, Federico II University, Naples, Italy
- ✓ Institute of Protein Biochemistry, CNR Naples, Italy
- ✓ Faculty of Applied Biological Science, Hiroshima University, Hiroshima Japan

Scientific productions and editorial activities

Dr Maurano is author of more than 40 original papers and reviews in international journals, as well as of book chapters on mucosal immunology

Publications list

1. Gliadin intake alters the small intestinal mucosa in indomethacin-treated HLA-DQ8 transgenic mice. Mazzarella G, Bergamo P, Maurano F, Luongo D, Rotondi Aufiero V, Bozzella G, Palmieri G, Troncone R, Auricchio S, David CS, Rossi M. *Am J Physiol Gastrointest Liver Physiol*. 2014 Aug 1;307(3):G302-12
2. Non-recombinant display of the B subunit of the heat labile toxin of *Escherichia coli* on wild type and mutant spores of *Bacillus subtilis*. Isticato R, Sirec T, Treppiccione L, Maurano F, De Felice M, Rossi M, Ricca E. *Microb Cell Fact*. 2013 Oct 29;12(1):98
3. Biochemical modifications of gliadins induced by microbial transglutaminase on wheat flour. Mazzeo MF, Bonavita R, Maurano F, Bergamo P, Siciliano RA, Rossi M. *Biochim Biophys Acta*. 2013 Nov;1830(11):5166-74.
4. Selective inhibition of the gliadin-specific, cell-mediated immune response by transamidation with microbial transglutaminase. Lombardi E, Bergamo P, Maurano F, Bozzella G, Luongo D, Mazzarella G, Rotondi Aufiero V, Iaquinto G, Rossi M. *J Leukoc Biol*. 2013 Apr;93(4):479-88.
5. Reintroduction of gluten following flour transamidation in adult celiac patients: a randomized, controlled clinical study. Mazzarella G, Salvati VM, Iaquinto G, Stefanile R, Capobianco F, Luongo D, Bergamo P, Maurano F, Giardullo N, Malamisura B, Rossi M. *Clin Dev Immunol*. 2012;2012:329150. Epub 2012 Jul 31.
6. Short wheat challenge is a reproducible in-vivo assay to detect immune response to gluten A. Camarca, G. Radano, R. Di Mase, G. Terrone, F. Maurano, S. Auricchio, R. Troncone, L. Greco and C. Gianfrani. *Clinical & Experimental Immunology*: 2012, 169, 2; 129-136
7. Conjugated linoleic acid protects against gliadin-induced depletion of intestinal defenses.
8. Bergamo P, Gogliettino M, Palmieri G, Cocca E, Maurano F, Stefanile R, Balestrieri M, Mazzarella G, David C, Rossi M. *Mol Nutr Food Res*. 2011 Sep;55 Suppl 2:S248-56.
9. Immunogenicity of two oat varieties, in relation to their safety for celiac patients. Maglio M, Mazzarella G, Barone MV, Gianfrani C, Pogna N, Gazza L, Stefanile R, Camarca A, Colicchio B, Nanayakkara M, Miele E, Iaquinto G, Giardullo N, Maurano F, Santoro P, Troncone R, Auricchio S. *Scand J Gastroenterol*. 2011 Oct;46(10):1194-205
10. Immunological evaluation of the alcohol-soluble protein fraction from gluten-free grains in relation to celiac disease. Bergamo P, Maurano F, Mazzarella G, Iaquinto G, Vocca I, Rivelli AR, De Falco E, Gianfrani C, Rossi M *Mol Nutr Food Res*. 2011 Aug;55(8):1266-70
11. Immunomodulatory effects of *Lactobacillus casei* administration in a mouse model of gliadin-sensitive enteropathy D'Arienzo R, Stefanile R, Maurano F, Mazzarella G, Ricca E, Troncone R, Auricchio S, Rossi M. *Scand J Immunol*. 2011 Oct;74(4):335-41

12. Gliadin-mediated proliferation and innate immune activation in celiac disease are due to alterations in vesicular trafficking Barone MV, Zanzi D, Maglio M, Nanayakkara M, Santagata S, Lania G, Miele E, Ribecco MT, Maurano F, Auricchio R, Gianfrani C, Ferrini S, Troncone R, Auricchio S. *PLoS One*. 2011 Feb 25;6(2):e17039.
13. Immunomodulation of gut-associated lymphoid tissue: current perspectives. Luongo D, D'Arienzo R, Bergamo P, Maurano F, Rossi M. *Int Rev Immunol*. 2009;28(6):446-64.
14. A deregulated immune response to gliadin causes a decreased villus height in dq8 transgenic mice. D'Arienzo R, Stefanile R, Maurano F, Luongo D, Bergamo P, Mazzarella G, Troncone R, Auricchio S, David C, Rossi M. *Eur J Immunol*. 2009 Sep 30;39(12):3552-3561
15. Modulation of the immune response by probiotic strains in a mouse model of gluten sensitivity. D'Arienzo R, Maurano F, Lavermicocca P, Ricca E, Rossi M. *Cytokine*. 2009 Dec; 48(3):254-259.
16. Effects of gliadin stimulation on bone marrow-derived dendritic cells from HLA-DQ8 transgenic MICE Ciccocioppo R., Rossi M., Pesce I., Ricci G., Millimaggi D., Maurano F., Corazza G.R. *DIG LIVER DIS*. 2008 DEC;40(12):927-35
17. Adjuvant effect of *Lactobacillus casei* in a mouse model of gluten sensitivity. D'Arienzo R., Maurano F., Luongo D., Mazzarella G., Stefanile R., Troncone R., Auricchio S., Ricca E., David C., Rossi M. *IMMUNOLOGY LETTERS*, 2008 AUG 15;119(1-2):78-83.
18. Association between activation of phase 2 enzymes and down-regulation of dendritic cell maturation by 9c,11t - Conjugated Linoleic Acid. Bergamo P., Maurano F., D'Arienzo R., David C., Rossi M. *IMMUNOLOGY LETTERS*, 2008 MAY 15;117(2):181-190.
19. Effects of *Lactobacillus casei* administration in a mouse model of gluten hypersensitivity. D'Arienzo R, Maurano F, Luongo D, Stefanile R, Mazzarella G, Bergamo P, Ricca E, Rossi M. *INTERNATIONAL JOURNAL OF PROBIOTICS AND PREBIOTICS*, vol. 3, p. 171-190
20. Transamidation of wheat flour inhibits the response to gliadin of intestinal T cells in celiac disease. Gianfrani C., Siciliano R.A., Facchiano A.M., Camarca A., Mazzeo M.F., Costantini S., Salvati V.M., Maurano F., Mazzarella G., Iaquinto G., Bergamo P., Rossi M. *GASTROENTEROLOGY* 2007 SEP;133(3): 780-9.
21. Gliadin Regulates the NK-Dendritic Cell Cross-Talk by HLA-E Surface Stabilization. Terrazzano G., Sica M., Gianfrani C., Mazzarella G., Maurano F., De Giulio B., de Saint-Mezard S., Zanzi D., Maiuri L., Londei M., Jabri B., Troncone R., Auricchio S., Zappacosta S., Carbone E. *JOURNAL OF IMMUNOLOGY* 178 / NO. 13 / JUL 1, 2007: 372-381
22. Phase 2 enzyme induction by conjugated linoleic acid improves lupus-associated oxidative stress. Bergamo P, Maurano F, Rossi M. *FREE RADIC BIOL MED*. 2007 JUL 1;43(1):71-79.
23. Highly efficient gluten degradation by lactobacilli and fungal proteases during food processing: new perspectives for celiac disease. Rizzello CG, De Angelis M, Di Cagno R, Camarca A, Silano M, Losito I, De Vincenzi M, De Bari MD, Palmisano F, Maurano F, Gianfrani C, Gobbetti M. *APPL ENVIRON MICROBIOL*. 2007 JUL;73(14):4499-507.
24. Gut Involvement in NOD Mouse Diabetes. Maurano F., Rossi M., Troncone R. *IMMUN., ENDOC. & METAB. AGENTS IN MED. CHEM.*, 2007, 7 (3):211-217
25. Growth factor-like activity of gliadin, an alimentary protein: implications for celiac disease (CD). Barone M.V., Gimigliano A., Castoria G., Paoletta G., Maurano F., Paparo F., Maglio M., Nanayakkara M., Mineo A., Miele E., Troncone R., Auricchio S. *GUT*. 2007 APR;56(4):480-8.

26. Germination-Independent Induction of Cellular Immune Response by *Bacillus subtilis* Spores Displaying the C Fragment of the Tetanus Toxin. Mauriello E.F.M., Cangiano G., Maurano F., De Felice M., Rossi M. Ricca E. VACCINE 2007 JAN 15;25(5):788-93
27. *Bacillus subtilis* spores reduce susceptibility to *Citrobacter rodentium*-mediated enteropathy in a mouse model. D'Arienzo R., Maurano F., Mazzarella G., Luongo D., Stefanile R., Ricca E., Rossi M. RES MICROBIOL. 2006 NOV;157(9): 891-7.
28. Conjugated linoleic acid enhances glutathione synthesis and attenuates pathological signs in MRL/MpJ-FAS lpr mice. Bergamo P., Luongo D., Maurano F., Mazzarella G., Stefanile R. and Rossi M. J. LIPID RES 2006 NOV;47(11): 2382-91
29. Identification of Immunodominant Epitopes of α -Gliadin in HLA-DQ8 Transgenic Mice following Oral Immunization. Senger S., Maurano F., Mazzeo F.M., Gaita M., Fierro O., David C.S., Troncone R., Auricchio S., Siciliano R.A., Rossi M. JOURNAL OF IMMUNOLOGY 175 (12): DIC 15 2005: 8087-8095
30. Immunomodulatory strategies for celiac disease. Rossi M., Maurano F., Luongo D. INT REV IMMUNOL. 2005 Sep-Dec;24(5):479-99.
31. Geological and morphological observations in the eastern part of the Gran Caverna de Santo Tomàs, Cuba (results of the "Santo Tomàs 2003" speleological expedition). Parise M., Valdes Suarez M.V., Potenza R., Del Vecchio U., Marangella A., Maurano F., Torrez Mirabal L.D. Cave and Karst Science, 2005; vol. 32, n. 1, 19-24.
32. Butterfat fatty acids differentially regulate growth and differentiation in Jurkat T-cells. Bergamo P., Luongo D., Maurano F., Rossi M. J CELL BIOCHEM., 96(2):349-60. OCT 1 2005
33. Small intestinal enteropathy in non-obese diabetic mice fed a diet containing wheat. Maurano F., Mazzarella G., Luongo D., Stefanile R., D'Arienzo R., Rossi M., Auricchio S., Troncone R. DIABETOLOGIA 48 (5): 931-937 MAY 2005
34. Characterization of the anti-tissue transglutaminase antibody response in nonobese diabetic mice. Sblattero D., Maurano F., Mazzarella G., Rossi M., Auricchio S., Florian F., Ziberna F., Tommasini A., Not T., Ventura A., Bradbury A., Marzari R., Troncone R. JOURNAL OF IMMUNOLOGY 174 (9): 5830-5836 MAY 1 2005
35. Intranasal administration of a recombinant alpha-gliadin down-regulates the immune response to wheat gliadin in DQ8 transgenic mice. Senger S., Luongo D., Maurano F., Mazzeo M.F., Siciliano R.A., Gianfrani C., David C., Troncone R., Auricchio S., Rossi M. IMMUNOLOGY LETTERS 88 (2): 127-134 AUG 5 2003
36. Zonula occludens toxin (Zot) interferes with the induction of nasal tolerance to gliadin. Rossi M., Maurano F., Luongo D., Fasano A., Uzzau S., Auricchio S., Troncone R. IMMUNOLOGY LETTERS 81 (3): 217-221 MAY 1 2002
37. Down-regulation of ERK1 and ERK2 activity during differentiation of the intestinal cell line HT-29. Luongo D., Mazzarella G., Della Ragione F., Maurano F., Rossi M. MOLECULAR AND CELLULAR BIOCHEMISTRY 231 (1-2): 43-50 FEB 2002
38. Intranasal administration of one alpha gliadin can downregulate the immune response to whole gliadin in mice. Maurano F., Siciliano R.A., De Giulio B., Luongo D., Mazzeo M.F., Troncone R., Auricchio S., Rossi M. SCANDINAVIAN JOURNAL OF IMMUNOLOGY 53 (3): 290-295 MAR 2001
39. Tissue transglutaminase is the target in both rodent and primate tissues for celiac disease-specific autoantibodies. Korponay-Szabo I.R., Sulkanen S., Halttunen T., Maurano F., Rossi

- M., Mazzarella G., Laurila K., Troncone R., Maki M. JOURNAL OF PEDIATRIC GASTROENTEROLOGY AND NUTRITION 31 (5): 520-527 NOV 2000
40. Coeliac disease in the year 2000. Auricchio S., Troncone R., Maurano F. ITALIAN JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY 31 (8): 773-780 NOV 1999
 41. Intravenous or intranasal administration of gliadin is able to down-regulate the specific immune response in mice. Rossi M., Maurano F., Caputo N., Auricchio S., Sette A., Capparelli R., Troncone R. SCANDINAVIAN JOURNAL OF IMMUNOLOGY 50 (2): 177-182 AUG 1999
 42. IgA antibodies to tissue transglutaminase: An effective diagnostic test for celiac disease. Troncone R., Maurano F., Rossi M., Micillo M., Greco L., Auricchio R., Salerno G., Salvatore F., Sacchetti L. JOURNAL OF PEDIATRICS 134 (2): 166-171 FEB 1999
 43. D-Amino acid oxidase from *Trigonopsis variabilis*: Immobilization of whole cells in natural polymeric gels for glutaryl-7-aminocephalosporanic acid production. D'Acunzo A., de Alteriis E., Maurano F., Battistel E., Parascandola P. JOURNAL OF FERMENTATION AND BIOENGINEERING 81 (2): 138-142 1996
 44. Distribution of Inorganic and organic pollutants in river sediments in Campania, Italy. Melluso G., Esposito A., Guida M., Maurano F., Trieff N.M., Pagano G. BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY 52 (1): 13-18 JAN 1994

Book chapters

1. R D'Arienzo, F Maurano, D Luongo, R Stefanile, G Mazzarella, E Ricca, C David and M Rossi. A mouse model for celiac disease. In: Spontaneous Model of Human Diseases. 2007, Euroscicon Press London , UK pp. 33-41
2. Luongo D, Maurano F, Bergamo P, D'Arienzo R, Saggese V and Rossi M. Immunomodulation of gluten hypersensitivity. In: Nutrition and Immunity, 2006 (Mengheri E ed.), Research Signpost, Kerala, India, Nutrition and Immunity, 2006: ISBN: 81-7736-251-8 Editors: Elena Mengheri, Marianna Roselli, Maria Serena Britti and Alberto Finamore
3. Gianfrani C, Rossi M, Mazzarella G, Maurano F, Salvati V, Zanzi D, Auricchio S, Troncone R. Immunotherapy of coeliac disease: where do we stand? In: Catassi C, Corazza GR (eds.) 2002: Primary prevention of coeliac disease. The utopia of the new millenium? Perspective in Coeliac Disease, vol I, AIC Press, pp 83-88.
4. Rossi M, Maurano F, Luongo D, Senger S, Siciliano RA, Marotti B, Mazzeo MF, Auricchio S and Troncone R. Immunotherapy with gliadin peptides in mice. Proceedings of 10th International Symposium on Coeliac Disease, Paris 2-5 June 2002, John Libbey Eurotext, pp. 259-267.