Dr. Francesca Nocente: Curriculum vitae et studiorum

Personal Information:
Date and place of birth: 14 April1973 Rome, Italy
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Current Position

Permanent Scientist at CREA-Research Centre for Engineering and Agro-Food Processing of Rome

Education

Master Degree in Biological Sciences – University "La Sapienza" of Rome, Italy; Note: 110/110 cum laude.
PhD in Biochemical and technology applied to food and nutrition - at Campus Bio-Medico University of Rome. Ph.D thesis title: "Safety of cereal production: the relationship between fusarium head blight and the presence of mycotoxins in durum wheat".

Research interests

For more than 15 years she is involved in research activities on cereal genetics and plant pathology within national and international projects. She had a special interest in host-pathogen interactions and breeding for disease resistance by classical and marker-assisted selection methods. Studies on virulence and aggressiveness of local air-borne pathogen populations and national monitoring of the most important wheat diseases (rusts, powdery mildew, septoria complex, fusarium head blight). Phenotyping breeding progenies and lines for resistance to different diseases by natural and artificial infections. Exploring wheat related species and genera as new source of resistance genes. In vitro evaluation of antifungal activity of natural biologically active compounds extracted from wheat (e.g. alkylresorcinols, phenolic acids etc.). She was responsible for the National monitoring of the effectiveness of wheat resistance genes against rusts.
She studies and applies innovative cereal processing technologies useful for obtaining products, mainly pasta, with increased nutritional and health potential also through the reuse of by-products deriving from other food transformation processes (for example from the brewing process). She evaluates the nutritional and technological quality of the raw materials and of the processed products. She studies the malting attitude of major and minor cereals to develop new beers.
She is Guest Editor for two Special Issues of the Open Access Journal 'Foods' by MDPI IF 4.3 https://www.mdpi.com/journal/foods/editors
She is member of 'Associazione Italiana di Scienza e Tecnologia dei Cereali' (AISTEC).
Since 2014, she is tutor within the degree course in Food Sciences and Human Nutrition at the Campus Bio-Medico University - Faculty of Medicine and Surgery – Rome.

Major publications (h-index=10)

1) Nocente, F., Natale, C., Galassi, E., Taddei, F., & Gazza, L. (2021). Using einkorn and tritordeum brewers'spent grain to increase the nutritional potential of durum wheat pasta. Foods, 10(3), 502.
2) Taddei, F., Galassi, E., Nocente, F., & Gazza, L. (2021). Innovative milling processes to Improve the technological and nutritional quality of parboiled brown rice pasta from contrasting amylose content cultivars. Foods, 10(6), 1316.
3) Galassi, E., Taddei, F., Ciccoritti, R., Nocente, F., Gazza, L. (2020). Biochemical and technological characterization of two C4 gluten-free cereals: Sorghum bicolor and Eragrostis tef. Cereal Chemistry, 97(1), 65-73.
4) P. Firmani, A. Nardecchia, F Nocente, L Gazza, F Marini, A Biancolillo. (2020). Multi-block classification of Italian semolina based on Near Infrared Spectroscopy (NIR) analysis and alveographic indices. Food Chemistry, 30 309: 125677 doi.org/10.1016/j.foodchem.2019.125677.
5) Ciccoritti R, Taddei F, Gazza L, Nocente F. (2020). Influence of kernel thermal pre-treatments on 5-nalkylresorcinols, polyphenols and antioxidant activity of durum and einkorn wheat. European Food Research and Technology, doi :10.1007/s00217-020-03627-4.
6) Galassi, E., Taddei, F., Ciccoritti, R., Nocente F., Gazza, L. (2020). Biochemical and Technological characterization of two C4 gluten-free cereals: Sorghum bicolor and Eragrostis tef. Cereal Chemistry, 97:65–73. doi:10.1002/cche.10217.

7) Francesca Nocente, Federica Taddei, Elena Galassi, Laura Gazza. (2019). Upcycling of brewers' spent grain by production of dry pasta with higher nutritional potential. LWT – Food Science and Technology. LWT-Food Science and Technology, 114: doi: 10.1016/j.lwt.2019.108421.
8) Francesca Nocente, Ester De Stefanis, Roberto Ciccoritti, Stefano Pucciarmati, Federica Taddei, Enio Campiglia, Emanuele Radicetti, Roberto Mancinelli. (2019). How do conventional and organic management affect the healthy potential of durum wheat grain and semolina pasta traits? Food Chemistry, 297 (2019)124884 DOI: 10.1016/j.foodchem.2019.05.158.
9) Miriana Durante, Marcello S. Lenucci, Laura Gazza, Federica Taddei, Francesca Nocente, Giuseppe E. De Benedetto, Monica De Caroli, Gabriella Piro, Giovanni Mita. (2019). Bioactive composition and sensory evaluation of innovative spaghetti supplemented with free or α- cyclodextrin chlatrated pumpkin oil extracted by supercritical CO2. Food Chemistry, 294:112–122. doi: 10.1016/j.foodchem.2019.05.032.
10) R. Ciccoritti, F. Nocente, D. Sgrulletta, L. Gazza. Cooking quality, biochemical and technological characteristics of bran-enriched pasta obtained by a novel pasta-making process. (2019). LWT-Food Science and Technology. 101: 10-16. doi :10.1016/j.lwt.2018.11.034.
11) Katya Carbone, Mariano Paliotta, Laura Micheli, Claudia Mazzuca, Ilaria Cacciotti, Francesca Nocente, Alessandra Ciampa, Maria Teresa Dell'Abate. (2019). A completely green approach to the synthesis of dendritic silver nanostructures starting from white grape pomace as a potential nanofactory. Arabian Journal of Chemistry 12: 597–609. doi: 10.1016/j.arabjc.2018.08.001.
12) Menesatti P, Antonucci F, Pallottino F, Giorgi S, Matere A, Nocente F, Pasquini M, D'Egidio MG, Costa C, 2013. Laboratory vs. in-field spectral proximal sensing for early detection of Fusarium head blight infection in durum wheat. Biosystems Engineering, 114, 289-293. https://doi.org/10.1016/j.biosystemseng.2013.01.004.
13) Ciccoritti R., Terracciano G., Cammerata A., Sgrulletta D., Del Frate V., Gazza L., Nocente F. (2018). Hydrothermal grain pre-processing and ultra-fine milling for the production of durum wheat flour fractions with high nutritional value". Food Science and Technology International, 24: 242-250. doi:10.1177/1082013217745199.
14) Martini, D., Ciccoritti, R., Nicoletti, I., Nocente, F., Corradini, D., D'Egidio, M. G., & Taddei, F. (2018). From seed to cooked pasta: influence of traditional and non-conventional transformation processes on total antioxidant capacity and phenolic acid content. International Journal of Food Sciences and Nutrition, 69: 24-32 doi:10.1080/09637486.2017.1336751.
15) Ciccoritti R., Pasquini M., Sgrulletta D., Nocente F., (2015). The effect of 5-n-alkylresorcinol extracts from durum wheat whole grain on the growth of FHB causal agents. Journal of Agricultural and Food Chemistry 63:43-50. doi:10.1021/jf5054518.
16) De Pace C., Marina Pasquini, Patrizia Vaccino, Marco Bizzarri, Francesca Nocente, Maria Corbellini, Maria Eugenia Caceres, Pier Giorgio Cionini, Doriano Vittori and Gyula Vida, (2011). Deployment of either a whole or dissected wild nuclear genome into the wheat gene pool meets the breeding challenges posed by the sustainable farming systems. Plant Genetic Resources Plant Genetic Resources, 9: 352-356. doi:10.1017/S1479262111000141.
17) Patriarca G, Pogna N, Cammarota G. Schiavino D, Lombardo C, Pollastrini E, De Pasquale T, Buonuomo A, Nocente F, Gazza L, Pietrini D, Miele L, Nucera E, Gasbarrini G., (2005). An attempt of specific desensiting treatment with gliadin in celiac disease. Int. J. Immunopathol Pharmacol. 18(4):709-714.
18) L. Gazza, F. Nocente, PK. W. Ng and N.E. Pogna, (2005). "Genetic and biochemical analysis of common wheat cultivars lacking puroindoline a". Theor Appl Genet. 110:470-478.
19) Nocente F., Sereni L., Matere A. & Pasquini M (2011). Recent occurence of Puccinia graminis f.sp. tritici in Italy: pathogen virulence composition and seedling resistance of durum and common wheat. Cereal Research Communications Vol.39 n.1: 77-87.
20) F. Nocente, L. Gazza and M. Pasquini, (2007). Evaluation of leaf rust resistance genes Lr1, Lr 9, Lr24, Lr47 and their introgression into common wheat cultivars by marker-assisted selection. Euphytica 155 (3): 329-336.
21) L. Gazza, F. Nocente, PK. W. Ng and N.E. Pogna (2005). Genetic and biochemical analysis of common wheat cultivars lacking puroindoline a. TAG 110:470-478.

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