

CURRICULUM VITAE MICHELANGELO PASCALE



PERSONAL INFORMATION

Surname, Name **PASCALE, MICHELANGELO**
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ORCID/SCOPUS **0000-0002-3898-1030**
Nationality **ITALIAN**
Date and Place of birth **04/04/1964, ITALY**

WORK EXPERIENCE

Period (from – to) **FEB. 2021 - PRESENT**
Name of employer **National Research Council of Italy, Institute of Food Sciences (CNR-ISA)**
Type of business or sector **Public Research Institution**
Occupation or position held **Director**

Period (from – to) **FEB. 1998 – JAN. 2021**
Name of employer **National Research Council of Italy, Institute of Sciences of Food Production (CNR-ISPA) (formerly Institute of Toxins and Mycotoxins from Plant Parasites, ITEM)**
Type of business or sector **Public Research Institution**
Occupation or position held **Researcher (1998-2006) / Senior Researcher (2007-2009) / Director of Research (2010-Jan 2021)**

Period (from – to) **JUNE - DEC. 1993**
Name of employer **Oleifici Fasanese S.r.L. (Italy)**
Type of business or sector **Private Company dealing with vegetable oils**
Occupation or position held **QC chemist**

EDUCATION

Period (from – to) **1985 - 1993**
Name and type of organization providing education **Chemistry Department, University of Bari, Italy**
Title of qualification awarded **Degree in Chemistry**

NATIVE LANGUAGE **ITALIAN**

OTHER LANGUAGES

ENGLISH
Reading **advanced**
Writing **advanced**
Talking **upper intermediate**

TRAINING

(main)

- 2003 Worked at the Institute of BioScience and Technology Centre for Supermolecular Technology, Cranfield University at Silsoe (UK) within a CNR-NATO fellowship (2 months). Gained experience on the development of synthetic receptors (molecularly imprinted polymers) and their application in separation and sensing mycotoxins and was trained in the development of biosensors and their testing and validation.
- 1999 Worked at the Department of Microbiology and Immunology, Universidad Nacional de Rio Cuarto (Argentina) within the bilateral project CNR-CONICET between Italy and Argentina (2 weeks). Gained experience on biomarkers of mycotoxin exposure.
- 1998 Worked at VICAM L.P. (Watertown, MA, USA) (2 months). Gained experience on the development and validation of immunoaffinity method for the analysis of mycotoxins.
- 1996 Worked as a post graduated fellow recipient of a grant (4 months) offered by "Plante forsk", the Norwegian Crop Research Institute, Plant Protection Centre (Aas, Norway) in the research project "Mycotoxins in Maize in Zambia" in collaboration with the Institute of Toxins and Mycotoxins of Plant Parasites (ITEM), CNR, Bari (Italy).
- 1994-1997 Studied and worked, as a post-graduated fellow recipient of grants of the National Research Council (CNR), at the Institute of Toxins and Mycotoxins of Plant Parasites (ITEM), Bari, Italy, focusing mainly on analytical methods for mycotoxins in food and feeds.

ORGANIZATIONAL CAPACITY

(main)

Team leader in several national/international projects of ISPA-CNR relevant to food safety.

From 2006 to 2015 leader of the CNR project "Innovative methods for food characterization and control of mycotoxins, toxigenic fungi and allergens" of the CNR Department of Biology, Agriculture and Food Sciences (DiSBA).

Member of Scientific Committee of International Conferences on food safety.

Member of Expert Commission for evaluation of proposals relevant to the DiSBA-CNR, within the Short Term Mobility 2017 of the CNR of Italy.

Member of Expert Commission for the evaluation of proposals relevant to the DiSBA-CNR within the Bilateral Agreements of the CNR of Italy with foreign counterparts.

Leader of Work package 6 – Remediation of the MYCOKEY project "Integrated and innovative key actions for mycotoxin management in the food and feed chain" (H2020, Project Number 678781).

Organizer of several international Workshop-Training courses on "Methods for mycotoxin detection in the food/feed chain" (Bari-Italy 2006, 2008, 2010, 2012, 2014, 2017; Ankara-Turkey 2010, 2011; Yogyakarta-Indonesia 2013; Lusaka-Zambia 2017, Santiago-Chile 2018; Wuhan-China, 2019).

Delegate of the International Atomic Energy Agency (IAEA) for the Assessment of laboratory infrastructures of the Toxicology Department - Indonesian Research Centre for Veterinary Science (BBALITVET, Bogor-Indonesia) and identification of equipment/training needs.

European Commission TAIEX (Technical Assistance and Information Exchange instrument) expert mission at the Chemistry Administration - Cairo, Egypt on Detection and control of mycotoxins in food.

Member of the IARC Working Group on "Aflatoxin Control Measures: A Basis for Improved Health in Developing Countries", International Agency for Research on Cancer (IARC), Lyon, France.

Member of the Consultant Meeting of the Coordinated Research Project (CRP) 2169 on "Integrated radiometric and complementary techniques for mixed contaminants and residues in foods", Food and Environmental Protection Sub-programme (FEP) of the Joint FAO/IAEA Programme for Nuclear Techniques in Food and Agriculture (NAFA), c/o International Atomic Energy Agency (IAEA), Vienna, Austria.

Technical Cooperation expert of the International Atomic Energy Agency (IAEA) for the organization of the Regional AFRA Training Course on "Method development/validation for mycotoxin analysis in food and feed", NISIR (National Institute for Scientific and Industrial Research), 24 - 28 July 2017, Lusaka, Zambia.

Technical Cooperation expert of the International Atomic Energy Agency (IAEA) for the organization of the Interregional Training Course on "Analysis of Mycotoxins in Foods of Significant Consumer Health

and Trade Concern”, Departamento de Laboratorios y Estaciones Cuarentenarias Agrícola y Pecuaria - Servicio Agrícola y Ganadero (S.A.G.), 3-7 September 2018, Santiago, Chile.

Expert Mission of the International Atomic Energy Agency (IAEA) on enhancing the capacities of the “Office National de Sécurité Sanitaire des Produits Alimentaires (ONSSA)” in Tanger, Morocco, 21-25 October 2019.

From 2010 to 2014, editor of “Mycotoxicology Newsletter”.

From 2009, member of Editorial Board of Food Additives and Contaminants - Part B.

From 2015 co-editor of the Topical Collection “Biorecognition Assays for Mycotoxins”, Toxins, MDPI

From 2020 co-editor of the Special Issue “Toxigenic Fungi and Mycotoxins: Ecology, Occurrence, and Prevention in a Climate Change Scenario” - Microorganisms (MDPI) and of the Special Issue “Development of Separative Techniques for the Detection of Natural Toxins” – Toxins (MDPI).

Research Activities

(main)

Scientific responsibility for ISPA-CNR in several research and training projects:

2015-2016. Bilateral project ISPA-CNR and RCB (Research Center of Biotechnology, Russian Academy of Sciences, Moscow) “Development of new methods for rapid detection of bio- and anthropogenic low-molecular toxicants in food products of plant and animal origin”.

2014-2017. EU project: SEA-EU-NET 2 - “EU-ASEAN S&T cooperation to jointly tackle societal Challenges” (FP7 INCO-2012-1).

2013-2017. National project: SAFE&SMART - “New enabling technologies for food safety and food chain integrity within a global scenario” (national Technological Cluster).

2011-2016. National Project: CISIA - “Integrate knowledge for sustainability and innovation of the agro-food “Made in Italy”. Scientific responsibility of OR2.1.1 “Development of methodologies and innovative diagnostic system for improving food quality and safety” (Law 191/2009).

2011-2015. National project: SAFEMEAT - “Process and product innovations aimed at increasing food safety and at diversifying pork-based products” (PON 2007-2013, MIUR).

2011-2015. National Training project: “Training of highly qualified experts in safety of products of main apulian food chains” linked to the SiMISA project (PON 2007-2013, MIUR).

2011-2015. National Training project: “Training of highly qualified experts in management and monitoring of food production processes and food quality and safety issues” linked to the SAFEMEAT project (PON 2007-2013, MIUR).

2011-2015. National Project: S.I.Mi.S.A. - “New Strategies for Improvement of Food Safety: Prevention, Control, Remedation (PON 2007-2013, MIUR).

2010-2014. Interregional project: MICOPRINCEM - “Major and emerging mycotoxins in cereals” (MiPAAF).

2009-2013. National Project “From Seed to Pasta” (AGER-banking foundations).

2007-2009. National project: SIGRAD - “Monitoring major mycotoxins in cereals and identification of durum wheat genotypes tolerant to toxigenic Fusarium” (MiPAAF).

2008-2010. EU project: RAF-REGIONS “Bringing the Benefits of Research to AgroFood SMEs of the Regions of Central Macedonia, Puglia and Pazardjik” (FP7).

2008. Scientific agreement between ISPA-CNR and S.I.S-Società Italiana Sementi.

2007. National Project: QUASICER - “Quality and safety of cereals: availability and effectiveness of bioactive compounds (FISR-MIUR).

2006-2009. Technical and scientific cooperation between ISPA and ARPA-Puglia for training on mycotoxin analysis.

2006-2008. FSA project: “Development of an improved method of analysis for the determination of T2 and HT2 toxins in foodstuffs” (Food Standard Agency, UK, project code: C03056).

2005-2008. Interregional project: MICOCER - “Monitoring and control of mycotoxin contamination of national cereals” (MiPAAF).

2004, 2008, 2010. Scientific agreements between ISPA and Barilla G. & R. F.lli.

2004-2005. National Training project: "Training of highly qualified experts in advanced systems to ensure food-chain safety with specific guidance to the cereal chain" linked to the SINSIAF project (PON 2000-2006, MIUR).

2000, 2003-2010. Scientific agreements between ISPA and Bayer CropScience.

2002-2010. Scientific agreements between ISPA and Syngenta Crop Protection.

2002-2005. National project: SISPROLAT - "Innovative system for safety of traditional dairy products" (Strategic project 449/97).

1999-2001. Mycotoxins in agro-food products and relevant analytical methods (CNR project).

Participation in European/International Research Projects:

2016-2020 / H2020 (project number 678781): "Integrated and innovative key actions for mycotoxin management in the food and feed chain" (MYCOKEY). Leader of Workpackage 6 "Remediation".

2009-2013 / FP7 EU Project (Large Collaborative Project): "Novel integrated strategies for worldwide mycotoxin reduction in food and feed chains" (MYCORED).

2007-2012 / FP6 EU Project "Monitoring and Quality Assurance in the Food Supply Chain (MoniQA)".

2006 / UE-FP6 EU project "Integration of mycotoxin and toxigenic fungi research for food safety in global system" (MYCO-GLOBE).

2005-present / VICAM - CNR-ISPA Consultancy agreement "Development of protocols for mycotoxin analysis using immunoaffinity columns".

Teaching Activities

(main)

Teacher at the Department of Food Science, University of Teramo (academic years 2005, 2006, 2007) and at post-university courses on food safety.

Instructor in several International Training Courses on detection methods for mycotoxins (Bari-Italy 2006, 2008, 2010, 2012, 2014, 2017; Ankara-Turkey 2010, 2011; Yogyakarta-Indonesia 2013; Lusaka-Zambia 2017; Santiago, Chile, 2018; Wuhan-China, 2019).

Tutor for 7 PhD students and 8 B.Sc. students

Speaker at several national and international Conferences/Symposiums (also as invited speaker) on food safety.

Publications

107 articles in International Scientific Journals (ISI WoS)

1 Books (edited)

22 Chapters in books (9 international, 13 national),

75 Articles in National or not ISI Scientific Journals

225 abstracts in international or national congresses

2 patents

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Selected publications of the last 5 years

- CIASCA B., PECORELLI I., LEPORE L., PAOLONI A., CATUCCI LUCIA, PASCALE M., LATTANZIO V.M.T. Rapid and reliable detection of glyphosate in pome fruits, berries, pulses and cereals by flow injection – Mass spectrometry. *Food Chemistry*, 2020, 310, 125813, doi: 10.1016/j.foodchem.2019.125813
- CIASCA B., LANUBILE A., MAROCCO A., PASCALE M., LOGRIECO A.F., LATTANZIO V.M.T. Application of an Integrated and Open Source Workflow for LC-HRMS Plant Metabolomics Studies. Case-Control Study: Metabolic Changes of Maize in Response to Fusarium verticillioides Infection. *Frontiers in Plant Science*, 2020, 11, 664, doi: 10.3389/fpls.2020.00664
- DE GIROLAMO A., CERVELLIERI S., MANCINI E., PASCALE M., LOGRIECO A.F., LIPPOLIS V. Rapid Authentication of 100% Italian Durum Wheat Pasta by FT-NIR Spectroscopy Combined with Chemometric Tools. *Foods*, 2020, 9, 1551, doi:10.3390/foods9111551
- DE GIROLAMO A., ARROYO M.C., LIPPOLIS V., CERVELLIERI S., CORTESE M., PASCALE M., LOGRIECO A.F., VON HOLST C. A simple design for the validation of a FT-NIR screening method: Application to the detection of durum wheat pasta adulteration. *Food Chemistry*, 2020, 333, 127449, doi: 10.1016/j.foodchem.2020.127449
- DE GIROLAMO A., ARROYO M.C., CERVELLIERI S., CORTESE M., PASCALE M., LOGRIECO A.F., LIPPOLIS V. Detection of durum wheat pasta adulteration with common wheat by infrared spectroscopy and chemometrics: A case study. *LWT - Food Science and Technology*, 2020, 127, 109368, doi: 10.1016/j.lwt.2020.109368
- LIPPOLIS V., ASIF S., PASCALE M., CERVELLIERI S., MANCINI E., PELI A., DE AMICIS I., ROBBE D., MINERVINI F. Natural Occurrence of Ochratoxin A in Blood and Milk Samples from Jennies and Their Foals after Delivery. *Toxins*, 2020, 12, 758, doi:10.3390/toxins12120758
- PASCALE M., LOGRIECO A.F., GRAEBER M., HIRSCHBERGER M., REICHEL M., LIPPOLIS V., DE GIROLAMO A., LATTANZIO V.M.T., SLETTENGREN K. Aflatoxin Reduction in Maize by Industrial-Scale Cleaning Solutions. *Toxins*, 2020, 12, 331, doi:10.3390/toxins12050331
- PECORELLI I., GUARDUCCI N., VON HOLST C., BIBI R., PASCALE M., CIASCA B., LOGRIECO A., LATTANZIO V.M.T. Critical Comparison of Analytical Performances of Two Immunoassay Methods for Rapid Detection of Aflatoxin M1 in Milk. *Toxins*, 2020, 12, 270, doi:10.3390/toxins12040270
- PERRONE G., FERRARA M., MEDINA A., PASCALE M., MAGAN N. Toxigenic Fungi and Mycotoxins in a Climate Change Scenario: Ecology, Genomics, Distribution, Prediction and Prevention of the Risk. *Microorganisms*, 2020, 8, 1496, doi:10.3390/microorganisms8101496
- DE GIROLAMO A., CIASCA B., PASCALE M., LATTANZIO V.M.T. Determination of Zearalenone and Trichothecenes, Including Deoxynivalenol and Its Acetylated Derivatives, Nivalenol, T-2 and HT-2 Toxins, in Wheat and Wheat Products by LC-MS/MS: A Collaborative Study. *Toxins*, 2020, 12, 786, doi: 10.3390/toxins12120786
- CIRIACO F., DE LEO V., CATUCCI L., PASCALE M., LOGRIECO A.F., DEROSA M.C., DE GIROLAMO A. An in-silico pipeline for rapid screening of DNA aptamers against mycotoxins: the case-study of fumonisin B1, aflatoxin B1 and ochratoxin A. *Polymers*, 2020, *Polymers* 2020, 12(12), 2983, doi: 10.3390/polym12122983
- PASCALE M., DE GIROLAMO A., LIPPOLIS V., STROKA J., MOL H.G.J., LATTANZIO V.M.T., 2019. Performance evaluation of LC-MS methods for multimycotoxin determination. *Journal of AOAC International*, 102(6), 1708-1720, doi: 10.5740/jaoacint.19-0068
- DE GIROLAMO A., CERVELLIERI S., CORTESE M., PORRICELLI A.C.R., PASCALE M., LONGOBARDI F., VON HOLST C., CIACCHERI L., LIPPOLIS V., 2019. Fourier transform near-infrared and mid-infrared spectroscopy as efficient tools for rapid screening of deoxynivalenol contamination in wheat bran. *Journal of the Sciences of Food and Agriculture*, 99, 1946-1953, doi: 10.1002/jsfa.9392
- MORETTI A., PASCALE M., LOGRIECO A.F., 2019. Mycotoxin risks under a climate change scenario in Europe. *Trends in Food Science & Technology*, 84, 38-40, doi: 10.1016/j.tifs.2018.03.008
- CENTONZE V., LIPPOLIS V., CERVELLIERI S., DAMASCELLI A., CASIELLO G., PASCALE M., LOGRIECO A.F., LONGOBARDI F., 2019. Discrimination of geographical origin of oranges (*Citrus sinensis* L. Osbeck) by mass spectrometry-based electronic nose and characterization of volatile compounds. *Food Chemistry*, 277, 25–30, doi: 10.1016/j.foodchem.2018.10.105
- DE GIROLAMO A., VON HOLST C., CORTESE M., CERVELLIERI S., PASCALE M., LONGOBARDI F., CATUCCI L., PORRICELLI A.C.R., LIPPOLIS V., 2019. Rapid screening of ochratoxin A in wheat by infrared spectroscopy. *Food Chemistry*, 282, 95–100, doi: 10.1016/j.foodchem.2019.01.008
- LATTANZIO V.M.T., VON HOLST C., LIPPOLIS V., DE GIROLAMO A., LOGRIECO A.F., MOL H.G.J., PASCALE M., 2019. Evaluation of mycotoxin screening tests in a verification study involving first time users. *Toxins*, 11, 129, doi:10.3390/toxins11020129
- MUNAWAR H., SAFARYAN A.H.M., DE GIROLAMO A., GARCIA-CRUZ A., MAROTE P., KARIM K., LIPPOLIS V., PASCALE M., PILETSKY S.A., 2019. Determination of Fumonisin B1 in maize using molecularly imprinted polymer nanoparticles-based assay. *Food Chemistry*, 298, 125044, doi: 10.1016/j.foodchem.2019.125044
- LIPPOLIS V., PORRICELLI A.C.R., MANCINI E., CIASCA B., LATTANZIO V.M.T., DE GIROLAMO A., MARAGOS C.M., MCCORMICK S., LI P., LOGRIECO A.F., PASCALE M., 2019. Fluorescence polarization immunoassay for the determination of T-2 and HT-2 toxins and their glucosides in wheat. *Toxins*, 11, 380, doi:10.3390/toxins11070380

- DE GIROLAMO A., CORTESE M., CERVELLIERI S., LIPPOLIS V., PASCALE M., LOGRIECO A.F., SUMAN M., 2019. Tracing the geographical origin of durum wheat by FT-NIR spectroscopy. *Foods*, 8, 450, doi:10.3390/foods8100450
- LIPPOLIS V., CERVELLIERI S., DAMASCELLI A., PASCALE M., DI GIOIA A., LONGOBARDI F., DE GIROLAMO A., 2018. Rapid prediction of deoxynivalenol contamination in wheat bran by MOS-based electronic nose and characterization of the relevant pattern of volatile compounds. *Journal of the Sciences of Food and Agriculture*, 13, 4955-4962, doi: 10.1002/jsfa.9028
- LATTANZIO V.M.T., GUARDUCCI N., POWERS S., CIASCA B., PASCALE M., VON HOLST C., 2018. Validation of a lateral flow immunoassay for the rapid determination of aflatoxins in maize by solvent free extraction. *Analytical Methods*, 10(1), 123-130, doi: 10.1039/c7ay02249b
- LIPPOLIS V., PORRICELLI A.C.R., CORTESE M., SUMAN M., ZANARDI S., PASCALE M., 2017. Determination of ochratoxin A in rye and rye-based products by fluorescence polarization immunoassay. *Toxins*, 9(10), 305, doi: 10.3390/toxins9100305
- BIANCO M., SONATO A., DE GIROLAMO A., PASCALE M., ROMANATO F., RINALDI R., ARIMA V., 2017. An aptamer-based SPR-polarization platform for high sensitive OTA detection. *Sensors and Actuators, B: Chemical*, 241, 314-320, doi: 10.1016/j.snb.2016.10.056
- LIPPOLIS V., IRURHE O., PORRICELLI A.C.R., CORTESE M., SCHENA R., IMAFIDON T., OLUWADUN A., PASCALE M., 2017. Natural co-occurrence of aflatoxins and ochratoxin A in ginger (*Zingiber officinale*) from Nigeria. *Food Control*, 73, 1061-1067, doi: 10.1016/j.foodcont.2016.10.026
- DE GIROLAMO A., CIASCA B., STROKA J., BRATINOVA S., PASCALE M., VISCONTI A., LATTANZIO V.M.T., 2017. Performance evaluation of LC-MS/MS methods for multi-mycotoxin determination in maize and wheat by means of international Proficiency Testing. *TrAC-Trends in Analytical Chemistry*, 86, 222-234, doi: 10.1016/j.trac.2016.11.005
- PORRICELLI A.C.R., LIPPOLIS V., VALENZANO S., CORTESE M., SUMAN M., ZANARDI S., PASCALE M., 2016. Optimization and validation of a fluorescence polarization immunoassay for rapid detection of T-2 and HT-2 toxins in cereals and cereal-based products. *Food Analytical Methods*, 9(12), 3310-3318, doi: 10.1007/s12161-016-0527-1
- DE GIROLAMO A., LATTANZIO V.M.T., SCHENA R., VISCONTI A., PASCALE M., 2016. Effect of alkaline cooking of maize on the content of fumonisins B1 and B2 and their hydrolysed forms. *Food Chemistry*, 192, 1083-1089, doi: 10.1016/j.foodchem.2015.07.059
- VALENZANO S., DE GIROLAMO A., DEROSA M.C., MCKEAGUE M., SCHENA R., CATUCCI L., PASCALE M., 2016. Screening and identification of DNA aptamers to tyramine using in vitro selection and high-throughput sequencing. *ACS Combinatorial Science*, 18(6), 302-313, doi: 10.1021/acscmbosci.5b00163
- LIPPOLIS V., FERRARA M., CERVELLIERI S., DAMASCELLI A., EPIFANI F., PASCALE M., PERRONE G., 2016. Rapid prediction of ochratoxin A-producing strains of *Penicillium* on dry-cured meat by MOS-based electronic nose. *International Journal of Food Microbiology*, 218, 71-77, doi: 10.1016/j.ijfoodmicro.2015.11.011