

PERSONAL INFORMATION

Irene Maja Nanni

WORK EXPERIENCE ON
SCIENTIFIC FIELD

2016- present

Postdoctoral fellowship

Department of Agricultural and Food Sciences (DISTAL), Plant Pathology Laboratory, University of Bologna.

Contact person for the molecular biology unit

Main activities: development of real time technique relevant for genetic mutations correlated to fungicides resistance, i.e. screening of SNPs mutations, protein purification, docking studies.

Development of new protocols for DNA and RNA extraction from spores. Fluorescence microscopy, digitalPCR.

Supervising of student teaching techniques and organizing activities, managing lab supplies and equipment maintenance.

Author, co-author and editor of scientific articles, involved in European projects.

01/2013- 12/2015

Enrolled in the PhD program of Agricultural, Environmental, Food Science and Technology

PhD project: Study of CAA (Carboxylic Acid Amides) fungicides activity in Oomycetes.

PhD thesis: Sensitivity studies of *Plasmopara viticola* to CAA fungicides: *in vivo* test and molecular studies of *PvCesA3* gene

01/5/2014-04/10/2014

Experience abroad and Award: Awarded with Marco Polo Fellowship from University of Bologna and selected to work on EMBL

Internship at European Molecular Biology Laboratory – EMBL - M. Wilmanns Group, Structural Biology Unit.

Project: DAPK2 protein death – associated protein kinase.

Main activities: protein production, protein expression, crystallization trials.

06/2010 - 12/2012

Scholarship recipient

Scholarship recipient – 2-year award for the development of *ex novo* protocol using quantitative PCR, Department of Agricultural Sciences (DiPSA), Plant Pathology Laboratory, University of Bologna.

Role: Biologist and contact person for the molecular biology laboratory. Development of new protocols for DNA and RNA extraction from spores.

08/2009 – 09/2010

Internship

Internship - Specializing biologist in molecular biology within the Virology Unit - Department of Hematology and Oncology "L. and A. Seragnoli", University of Bologna - St. Orsola – Malpighi Hospital, Prof. Maria Luisa Zerbini.

Activities in the research of human papilloma virus (HPV).

Thesis title: "Studies on expression and integration of HPV mRNA E6/E7 in the evolution of cervical cancer"

Main activities and knowledge: studies of the integration of the viral genome, gene expression studies in pre-neoplastic lesions and dysfunctions, extraction of nucleic acids from tissues and cells, manipulation of cell culture, quantitative and qualitative PCR, bacterial cultures,

09/2006 to 08/2008

transformation, transfection.

Internship

Internship before and after graduation, collaborating on research projects at the Molecular Biology Unit, San Raffaele Scientific Institute in Milan - Dr Vito Lampasona (Molecular Biology –Unit), Dr Lorenzo Piemonti (Beta Cell-Unit).

Activities in the field of type 1 diabetes.

Thesis title: "Expression studies of microRNA in β -cells".

Laboratory activities studying the gene expression of ductal and non ductal carcinoma.

Main activities and knowledge: extraction of nucleic acids from tissues and human, rat and mouse cells, quantitative and qualitative PCR, bacterial cultures, cell cultures, molecular cloning, transformation and transfection.

EDUCATION AND TRAINING

27/5/2016

Title of Doctor of Philosophy - Doctor Europaeus Microbial Ecology – Plant Pathology curriculum

PhD thesis: Sensitivity studies of *Plasmopara viticola* to CAA fungicides: *in vivo* test and molecular studies of *PvCesA3* gene

University of Bologna (Italy)

2007

Bachelor's degree in Biology (1st degree EQF 6)

Thesis title: " Expression studies of microRNA in β -cells" University of Bologna, Italy

2010

Master's degree in Biology (2nd degree EQF 7)

Thesis title: " Studies on expression and integration of HPV mRNA E6/E7 in the evolution of cervical cancer" University of Bologna, Italy

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C2
German	C1	C2	C1	C1	C1
French	B2	B2	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

• Conscientious, driven team player, with good problem solving, decision making, and professional communication skills

Organisational / managerial skills • . Committed to driving student learning through mentorship, instruction, modeling techniques and tools, offering practice, and providing detailed feedback.

Driving licence Category B

ADDITIONAL INFORMATION

- Publications - Presentations - Projects - Conferences - Seminars - Honours and awards - Memberships - References - Citations - Courses	Teaching Activity 2010/2011 Academic seminars on: molecular methods of mutational screening, in particular molecular techniques. Teaching Activity 2011/2012 Within the course of Molecular Diagnostics and Plant Epidemiology held by Prof. Bertaccini; theoretical and practical seminar on Real-Time PCR. Teaching activity 10/2014 – 04/2015 Adjunct professor of Microbial Forensic SSD BIO/19 in: "Application & technologies for scientific investigation," University of Florence, Italy. Tutoring activities Work closely with students regarding the use of molecular techniques and instrumentation; interpretation and <i>ex novo</i> design of molecular protocols
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Selected oral presentations

"Efficacy of CAA fungicides on CAA resistant Italian populations of *Plasmopara viticola* " at Resistance 2015 Conference - Rothamsted (UK)

"Efficacy of Carboxylic Acid Amides (CAA) fungicides towards CAA resistant and CAA sensitive *Plasmopara viticola* populations: *in vivo* tests and molecular studies on *PVCesA3* gene" at 18th International Reinhardtsbrunn Symposium on Modern Fungicides and Antifungal Compounds" 2016 Friedrichroda (Ge)

"Effectiveness differences of carboxylic acid amide fungicides" at SIPAV, 19-21 September 2016-- Rome (IT)

"Dimethomorph: an interdisciplinary approach through different plants and animal pathogenic oomycetes " at ECFG, 17-20 February 2020 Rome (IT)

Selected coursework and conferences

Conference participant and speaker at Modern Fungicides and Antifungals Compounds IX Reinhardtsbrunn Symposium, (2019)

Conference participant and speaker European Conference on Fungal Genetics (ECFG), Rome, (2020)

Participant at the GRIFA Summer School "Green Chemistry & one health perspective" 10-11 September, (2018)

Participant at the advanced school on protein structure and dynamics: from Spectroscopy to Mass Spectrometry, 27-29 September, (2017)

Conference participant and speaker " 18th International Reinhardtsbrunn Symposium on Modern Fungicides and Antifungal Compounds" . Friedrichroda, Germany (2016)

Conference participant and speaker at Italian Plant Pathology Society conference 19-21 September – (2016)

Summer school on X-ray radiation, CFEL, Hamburg, Germany (2015)

Organizer - seminar held by BIO-RAD on ddPCR, University of Bologna, Italy (2015)

Conference participant at the IPPC –Conference Berlin (2015)

Conference participant and speaker , International Conference "Resistance 2015" – Hertfordshire, United Kingdom(2015)

Workshops and training held by Bio – Rad: ddPCR and data analysis, at University of Bologna (2014)

Conference participant " Giornate Fitopatologiche ", Chianciano, Italy (2014)

Course on protein expression: Protein expression, purification, and characterization _PEPC9 (2014)

Course on Cell Culture - Prof Anna Bassi, University Of Genova, Italy (2013)

Course on practical and technical microscopy, ZEISS, University of Parma, Italy (2013)

Workshop Life Science Nextgene Sequencing technologies, University of Bologna, Italy (2013)

Workshop on Pharmaceutical industry BASF – Germany (2013)

Conference participant, Italian Society of Biology (2013)

Conference participant, genetically modified lines : technical and managerial aspects, University of Bologna, Italy (2013)

Organizer - seminar held by BMR Genomics Nextgene Sequencing and 454 platforms, University of Bologna, Italy (2012)

Conference participant " Giornate Fitopatologiche " (2012)

Workshops and training held by Bio –Rad: Real - Time PCR and data analysis, University of Bologna, Italy (2010)

Participant and presenter at DIBIT retreat for IRCSS San Raffaele Hospital Milan, Italy (2010)

Applied Biosystems Training Course, San Raffaele Hospital; Milan, Italy (2009)

Workshop on Applied Biosystems: miRNA application, Institute of Pharmacology, University of Milan, Italy (2009)

Publications

Ceren Turan¹, Irene Maja Nanni¹, Lucia Landi², Alessandro Pirondi¹, Marina Collina¹ Fine Tuning of Real Time PCR as a First Tool for the Detection of G143A Substitution In *Venturia inaequalis* Samples, "American Journal of Plant Sciences, 2021 Vol.12 No.6."

Katia Gazzetti, Elena Lavinia Diaconu, Irene Maja Nanni, Marina Collina *Sequence and properties of the draft genome of Stemphylium vesicarium*, in: Proceedings (poster) 15th European Conference on Fungal genetics (ECFG15), 2020, pp. 1 - 1 (atti di: 15th European Conference on Fungal Genetics, Roma (Italia), 17-20 febbraio 2020) [atti di convegno-abstract]

I.M. Nanni, P. Tedesco, R. Galuppi, M. Collina, *Dimethomorph: an interdisciplinary approach through different plants and animal pathogenic oomycetes*, in: Proceedings (oral presentation) 15th European Conference on Fungal genetics (ECFG15), 2020, p. 115 (atti di: 15th European Conference on Fungal Genetics, Roma (Italia), 17-20 febbraio 2020) [Contributo in Atti di convegno]

I.M. Nanni, R. D'Ambrosio, M.Collina, Sensitivity monitoring of *Plasmopara viticola* to oxathiapiprolin in Italy, , in: Proceedings (oral

presentation) 15th European Conference on Fungal genetics (ECFG15), 2020, p. 366 (atti di: 15th European Conference on Fungal Genetics, Roma (Italia), 17-20 febbraio 2020) [Contributo in Atti di convegno]

Gazzetti K, Diaconu EL, Nanni IM, Ciriani A, Collina M, *Sequence and properties of the draft genome of Stemphylium vesicarium*, in: Modern Fungicides and Antifungal Compounds IX, Braunschweig, DPG Publisher, 2020, pp. 187 - 188 (atti di: 19th International Reinhardsbrunn Symposium, Friedrichroda, Germany, 7-11 Aprile 2019) [Contributo in Atti di convegno]

Irene Maja Nanni, Michela Taccioli, Selene Assunta Burgio, Marina Collina, *SENSITIVITY OF PLASMOPARA VITICOLA POPULATIONS AND PRESENCE OF SPECIFIC AND NON-SPECIFIC RESISTANCE MECHANISMS*, in: Modern Fungicides and Antifungal Compounds IX, Braunschweig, DPG Publisher, 2020, pp. 137 - 138 (atti di: 19th International Reinhardsbrunn Symposium, Friedrichroda, Germany, 7-11 Aprile 2019) [Contributo in Atti di convegno]

Irene Maja Nanni, Perla Tedesco, Roberta Galuppi, Marina Collina, *DIMETHOMORPH ACITIVITY ON DIFFERENT OOMYCETE SPECIES OF ECONOMIC AND VETERINARY INTEREST*, in: Modern Fungicides and Antifungal Compounds IX, Braunschweig, DPG Publisher, 2020, pp. 43 - 44 (atti di: 19th International Reinhardsbrunn Symposium, Friedrichroda, Germany, 7-11 Aprile 2019) [Contributo in Atti di convegno]

Katia Gazzetti, Elena L. Diaconu, Irene M. Nanni, Alessandro Ciriani, Marina Collina, *Genome sequence resource for Stemphylium vesicarium, causing brown spot disease of pear*, in: Proceedings XXV NATIONAL CONGRESS ITALIAN PHYTOPATHOLOGICAL SOCIETY (SIPAV), 2019(atti di: XXV NATIONAL CONGRESS ITALIAN PHYTOPATHOLOGICAL SOCIETY (SIPAV), MILANO (Italy), 16-19 Settembre 2019) [atti di convegno-poster]

Katia Gazzetti, Elena L. Diaconu, Irene M. Nanni, Alessandro Ciriani, Marina Collina, *Genome sequence resource for Stemphylium vesicarium, causing Brown Spot Disease of Pear*, «MOLECULAR PLANT-MICROBE INTERACTIONS», 2019, 32, pp. 935 - 938 [articolo]

Satta, Eleonora; Nanni, Irene M.; Contaldo, Nicoletta; Collina, Marina; Poveda, José B.; Ramirez, Ana S.; Bertaccini, Assunta, *General phytoplasma detection by a q-PCR method using mycoplasma primers*, «MOLECULAR AND CELLULAR PROBES», 2017, 35, pp. 1 - 7 [articolo]

Cameldi, I.; Neri, F.; Menghini, M.; Pironi, A.; Nanni, I. M.; Collina, M.; Mari, M., *Characterization of Neofabraea vagabunda isolates causing apple bull's eye rot in Italy (Emilia-Romagna region)*, «PLANT PATHOLOGY», 2017, 66, pp. 1432 - 1444 [articolo]

Nanni, IRENE MAJA; Pironi, Alessandro; Mancini, Daniela; Stammler, G.; Gold, R.; Ferri, I.; Brunelli, Agostino; Collina, Marina, *Differences in the efficacy of carboxylic acid amide fungicides against less sensitive strains of Plasmopara viticola*, «PEST MANAGEMENT SCIENCE», 2016, 72, pp. 1537 - 1539 [articolo]

Turan, Ceren; Nanni, IRENE MAJA; Tosun, N.; Collina, Marina, *First Report of QoI Resistance in Venturia inaequalis Causing Apple Scab in Apple Orchards in Turkey*, «PLANT DISEASE», 2016, 100, pp. 1016 - 1016 [articolo]

Nanni, IRENE MAJA; Pironi, Alessandro; Contaldo, Nicoletta; Collina, Marina, *Screening of sensitivity to mandipropamid of Plasmopara viticola populations from Italian vineyards by molecular and biological methods*, «LETTERS IN APPLIED MICROBIOLOGY», 2016, 63, pp. 268 - 273 [articolo]

Satta, E.; Contaldo, N.; Nanni, I.M.; Collina, M.; Poveda, J.B.; Bertaccini, A.; Ramirez, A.S., *Detection of a wide range of phytoplasmas using a qPCR methodology developed for mycoplasmas*, in: IOM2016 - 21th Congress of the International Organization for Mycoplasmaology, Brisbane, Australia, July 3-7, 2016, 2016, pp. 90 - 91 (atti di: IOM2016 - 21th Congress of the International Organization for Mycoplasmaology, Brisbane, Australia, July 3-7, 2016) [atti di convegno-abstract]

Nanni, Irene M.; Stammer, Gord; Zito, Raffaello; Collina, Marina, *EFFICACY OF CARBOXYLIC ACID AMIDES (CAA) FUNGICIDES TOWARDS CAA SENSITIVE and CAA RESISTANT PLASMOPARA VITICOLA POPULATIONS: IN VIVO TESTS AND MOLECULAR STUDIES ON PVCESA3 GENE*, in: Book of abstracts of the 18th International Reinhardtsbrunn Symposium, 2016, pp. 44 - 44 (atti di: 18th International Reinhardtsbrunn Symposium, Friedrichroda, Germany, 24-28 aprile 2016) [atti di convegno-abstract]

Nanni, Irene Maja; Collina, Marina, *EFFECTIVENESS DIFFERENCES OF CARBOXYLIC ACID AMIDES FUNGICIDES TOWARDS PLASMOPARA VITICOLA POPULATIONS: IN VIVO TESTS AND MOLECULAR STUDIES ON PVCESA3 GENE*, in: Book of abstracts del XXII Convegno nazionale Sipav - La patologia vegetale tra produttività e sostenibilità, 2016, pp. 49 - 49 (atti di: XXII Convegno nazionale Sipav - La patologia vegetale tra produttività e sostenibilità, Roma, Italia, 19-22 settembre 2016) [atti di convegno-abstract]

Nanni, I.M.; Ferri, I.; Tabanelli, G.L.; Stammer, G.; Collina, M, *Efficacy of CAA fungicides on CAA resistant Italian populations of Plasmopara viticola*, in: Resistance 2015, 2015, pp. 51 - 51 (atti di: Resistance 2015, Rothamsted research, Harpenden (UK), 14-16 settembre 2015) [atti di convegno-abstract]

Turan, C.; Nanni, I. M.; Brunelli, A.; Collina, M, *New Rapid DNA extraction method with Chelex from Venturia inaequalis spores*, «JOURNAL OF MICROBIOLOGICAL METHODS», 2015, 115, pp. 139 - 143 [articolo]

Turan, C.; Nanni, I.M.; Battistini, G.; Tosun, N.; Brunelli, A.; Collina, M, *G143A detection in Venturia inaequalis in Turkish apple orchards*, in: XVIII International Plant Protection Congress, 2015(atti di: XVIII International Plant Protection Congress, Berlino (Germania), 24-27 agosto 2015) [atti di convegno-poster]

Nanni, I. M.; Pirondi, A.; Mancini, D.; Brunelli, A.; Collina, M, *New findings about the sensitivity of Plasmopara viticola to CAA fungicides*, in: XVIII International Plant Protection Congress, 2015, pp. 623 - 624 (atti di: XVIII International Plant Protection Congress, Berlino (Germania), 24-27 agosto 2015) [atti di convegno-poster]

Pirondi Alessandro; Nanni Irene Maja; Brunelli Agostino; Collina Marina, *First Report of Resistance to Cyflufenamid in Podosphaera xanthii, Causal Agent of Powdery Mildew, from Melon and Zucchini Fields in Italy*, «PLANT DISEASE», 2014, 98, pp. 1581 - 1581 [articolo]

Nanni, I.M.; Pirondi, A.; Ciriani, A.; Brunelli, A.; Collina, M, *Molecular and Biological methods to evaluate the sensitivity to Carboxylic Acide Amide (CAA) fungicides of Plasmopara viticola populations*, in: Proceedings of the 7th International Workshop on Downy and Powdery Mildew, 2014(atti di: 7th GDPM 2014, Vitoria Gasteiz (Spain), 30 giugno-4 luglio 2014) [atti di convegno-poster]

Collina, M; Nanni, IM; Contaldo, N; Brunelli, A, *Sensitivity to carboxylic acid amide fungicides of Plasmopara viticola populations in northern Italy*, in: Modern Fungicides and Antifungal Compounds, Braunschweig, DPG Spectrum Phytomedizin, 2014, pp. 273 - 274 (atti di: Modern Fungicides and Antifungal Compounds, Friedrichroda (Germany), 21-25 aprile 2013) [Contributo in Atti di convegno]

Pirondi, A.; Portillo, I.; Nanni, I.M.; Turan, C.; Brunelli, A.; Collina, M, *Greenhouse evaluation of post-infectional activity of cyazofamid, fosetyl-Al, metalaxyl-M, and carboxylic acid amides (CAA) fungicides on grape downy mildew (Plasmopara viticola)*, in: edings of the 7th

International Workshop on Downy an Powdery Mildew, 2014, pp. 108 - 109 (atti di: 7h GDPM 2014, Vitoria Gasteiz, 31 luglio-4 agosto 2014)
[Contributo in Atti di convegno]

I.M.Nanni et al, Expression level of the miR 204/211 family of microRNA is associated with expression of insulin in pancreatic endocrine tumours. DIBIT Retreat.

Nanni I.; Turan C.; Facciadori R.; Alberoni G.; Collina M.; Brunelli A., *Study of Venturia inaequalis sensitivity to strobilurins: correlation between molecular and biological approaches*, in: Journal of Plant Pathology, «JOURNAL OF PLANT PATHOLOGY», 2011, 93 (Suppl. 4), pp. S4.44 - S4.44 (atti di: XVII Convegno Nazionale Società Italiana di Patologia Vegetale, Bologna (I), 12-14 settembre 2011) [atti di convegno-abstract]

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