



PERSONAL INFORMATION

Surname, Name **VURRO, MAURIZIO**
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Nationality **Italian**
Date and Place of birth

WORK EXPERIENCE

Period (from – to) **FROM 1987 - ONGOING**
Name and address of employer **Institute of Sciences of Food Production, National Research Council (former Institute of Toxins and Mycotoxins from Plant Parasites), via Amendola 122/O, Bari, Italy**
Type of business or sector **Public Research Institution**
Occupation or position held **Current: Director of Research; former: Senior Researcher (until 2010); Researcher (until 2001)**
Main activities or responsibilities **Research activities and project scientific coordination**
Personal registration number **22419**

EDUCATION AND TRAINING

Period (from – to) **1980-1985**
Name and type of organization providing education **University of Bari - Faculty of Agriculture**
Principal subjects / skills covered **Plant Pathology, Biological Control, Mycology, Natural compounds, Weed Management, Parasitic Weeds; Bioherbicides**
Title of qualification awarded **Degree in Agricultural Sciences (Master degree equivalent)**

NATIVE LANGUAGE ITALIAN

OTHER LANGUAGES

ENGLISH
Reading **Excellent**
Writing **Excellent**
Talking **Excellent**

TRAINING

(main)

October 1999 **He has a study visit at Nitra and Bratislava (Slovak Republic) within a bilateral project between CNR and the Slovak Academy of Science.**

- 9 - 19 December 1996 He has a short study visit at the International Institute for Biological Control, Ascot (UK), thanks to a fellowship within the international scientific agreement CNR/British Council.
- 10 July - 10 August 1996 He spends one month, thanks to a CNR short-mobility fellowship, at the Department of Plant Science, University of British Columbia, Vancouver, Canada.
- June - December 1995 He spends 6 months at the Department of Plant Science, University of British Columbia, Vancouver, Canada, thanks to a CNR fellowship, under the guidance of Prof. Brian E. Ellis.
- 18 July - 12 August 1994 He has a study visit at the Department of Biochemistry, del Max-Planck Institut fur Zuchtungsforschung of Cologne (Germany), under the guidance of Dr. Wolfgang Knogge.
- 5 February - 1 March 1990 He attends a Course on Mycology at the CBS in Baarn (The Netherlands) supervised by Prof. Walter Gams
- 1986 He receives a one-year grant from the Italian National Research Council.

ORGANIZATIONAL CAPACITY (main)

- 25-29 September 2018 Thanks to a grant obtained by both the OECD and the Rockefeller Foundation in a competitive call, he proposes and organizes (with Prof. S. Duke and A. Evidente) the Conference "Natural products in pest management: Innovative approaches for increasing their use", 25-29 September 2018, Rockefeller Foundation Bellagio Center, Como Lake, Italy.
- 7-12 June 2011 He organizes the 11th World Congress on Parasitic Plants, held in Martina Franca, Italy
- 21 - 26 September 2008 Thanks to a grant obtained by OECD in a competitive call (49,000 €), he organizes with Prof. Jonathan Gressel, Weizmann Institute of Science, Israel, The International OECD Conference "Managing parasitic weeds: integrating science and practice", held in Ostuni (Italy).
- 8 - 19 September 2006 Thanks to a grant obtained by NATO in a competitive call (60,000 €), he organizes, with Prof. Jonathan Gressel, Weizmann Institute of Science, Israel, the NATO Advanced Study Institute "Novel biotechnologies for biocontrol agent enhancement and management", held in Gualdo Tadino (Perugia).
- 18 - 23 June 2005 He organizes the 13th Symposium of the European Weed Research Society and the VII International Bioherbicide Group Workshop, held in Bari
- October 2005 He organizes in Rome the COST 849 International Workshop "Synergistic use of biocontrol agents for parasitic plant management".
- 27 April 2003 He organizes the VI Workshop of the International Bioherbicide Group "Bioherbicides, the next generation", held as a satellite meeting of the International Symposium of Biological Control of Weeds, in Canberra (Australia)
- 18 - 20 October 2001 He organizes the Workshop "The State of the Art in *Orobanche* Research and Control", within the European network COST 849 "Parasitic plant management in sustainable agriculture", held in Bari (Italy)
- 9 - 15 June 2001 Thanks to a grant obtained by NATO in a competitive call (26,000 US\$), he organizes with Prof. Jonathan Gressel, Weizmann Institute of Science, Israel, the NATO Advanced Research Workshop "Enhancing biocontrol agents and handling risks" held in Florence (Italy)
- from 1998 - ongoing He is editor of the Newsletter of the "International Bioherbicide Group" distributed by e-mail to the members of the international group, as well as posted on the website <http://ibg.ba.cnr.it>.

Research Activities (main)

- 2013 - 2019 He is coordinator of the EU Life Project (LIFE12 BIO/IT/000213): "Control and eradication of the invasive exotic plant *Ailanthus altissima* in the Alta Murgia National Park" (ca. 1.7 M€)
- 2012 - 2017 He is National Delegate and Coordinator of WG2 "Parasitic Weeds" of the project COST FA1206 "Strigolactones: biological roles and applications" (STREAM).
- 2012 - 2016 He is National Delegate and coordinator of the Training Activities of the project COST FA1203 "Sustainable management of *Ambrosia artemisiifolia* in Europe" (SMARTER),
- 2010 - 2012 He is team manager of the two-year-project "Biological control of weeds in archaeological sites in the Apulia Region ", from the Italian Ministry for the Cultural activities and goods (10,000 €).

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| 2010 - 2011 | He is team manager of a bilateral project for the scientific cooperation with JSPS (Japan) on the role of strigolactones in the plant-parasite relationships (8,000 €). |
| 2010 - 2011 | He is team manager of a two-year National Project named "ECOVIDA" on the "Optimization and pre-industrial development of a natural herbicide of microbial origin" (170,000 €). |
| 2004 - 2006 | He is coordinator of the European project "Enhancement and Exploitation of Soil Biocontrol Agents for Bio-Constraints Management in Crops", within the "Food Quality and Safety" topic of the VI Framework Programme (2.3 M€) |
| 2001 - 2006 | He is National Delegate of the project COST 849 "Parasitic plant management in sustainable agriculture" and coordinator of the Working Group 2 "Biological control". |
| 2000 - 2005 | He coordinates a project funded by the Italian Ministry of Scientific Research on "Biological control of <i>Orobanchae</i> using phytopathogenic fungi and their toxic metabolites" |
| 1998 - 2000 | He is team manager of the Institute of Toxins and Mycotoxins within the three-year-project "Optimizing of biological control of a dominant weed in major crops" funded by the European Commission. |
| 1994 - 1999 | He is National delegate of the project COST 816 "Biological control of weeds in Europe". |
| 1990 | He obtains an Italian patent (in collaboration with three other scientists) on the "Process for the production of cytochalasin B by <i>Phoma exigua</i> var. <i>heteromorpha</i> " |

Teaching Activities

(main)

He acted as a tutor for 3 PhD, 2 M.Sc. and 3 B.Sc. students

He supervised several thesis, and hosted several students at the ISPA labs

He made several speeches and presentations at national and international congresses, PhD classes and courses

Publications

> 100 articles in International Scientific Journals (ISI)

3 Books (edited)

14 Chapters in books

19 Articles in National or not ISI Scientific Journals (ISI)

well over 100 abstracts in international or national congresses

1 patent

October 2021

Selected publications of the last 5 years

- SAMPERNA S., BOARI A., VURRO M., SALZANO A.M., REVEGLIA P., EVIDENTE A., GISMONDI A., CANINI A., SCALONI A., MARRA M., 2021. Arabidopsis defense against the pathogenic fungus *Drechslera gigantea* is dependent on the integrity of the unfolded protein response. *Biomolecules*, 17, 240.
- BOARI A., VURRO M., CALABRESE G. J., MAHMOUD M.N.Z., CAZZATO E., FRACCHIOLLA M., 2021. Evaluation of *Dittrichia viscosa* dried dry-biomass for weed management. *Plants*, 10, 147.
- MASI M., ZONNO M.C., BOARI A., VURRO M., EVIDENTE A., 2020. Terpestacin, a toxin produced by *Phoma exigua* var. *heteromorpha*, the causal agent of a severe foliar disease of oleander (*Nerium oleander* L.). *Natural Product Research* <https://doi.org/10.1080/14786419.2021.1872570>.
- VURRO M., TOWNLEY H.E., MORRISON R., BOARI A., MASI M., EVIDENTE A., 2020. Augmented phytotoxic effect of nanoencapsulated ophiobolin A. *Natural Product Research*
- SERINO N., BOARI A., SANTAGATA G., MASI M., MALINCONICO M., EVIDENTE A., VURRO M., 2020. Biodegradable polymers as carriers for tuning the release and improve the herbicidal effectiveness of *Dittrichia viscosa* plant organic extracts. *Pest Management Science*, 77: 646–658.
- DUKE S.O., EVIDENTE A., VURRO M., 2019. Natural Products in Pest Management: Innovative Approaches for Increasing their Use. *Pest Management Science*, 75(9): 2299–2300.
- KORRES N.E., BURGOS N.R., TRAVLOS I., VURRO M., GITSOPOULOS T.K., VARANASI V.K., DUKE S.O., KUDSK P., BRABHAM C., ROUSE C.E., SALAS-PEREZ R., 2019. New directions for integrated weed management: Modern technologies, tools and knowledge discovery. *Advances in Agronomy*, Volume 155. Chapter 6, 243-319.
- VURRO M., MIGUEL-ROJAS C., PÉREZ-DE-LUQUE A., 2019. Safe nanotechnologies for increasing effectiveness of environmentally friendly natural agrochemicals. *Pest Management Science*, 75(9): 2403-2412.
- VURRO M., BOARI A., THIOMBANO B., BOUWMEESTER H., 2019. Strigolactones and parasitic plants. In: *Strigolactones - Biology and Applications* (H. Koltai and C. Prandi eds.). Springer Cham, Chapter 3, 89-120.
- MOEINI A., MASI M., ZONNO M.C., BOARI A., CIMMINO A., TARALLO O., VURRO M., EVIDENTE A., 2019. Encapsulation of inuloxin A, a plant germacrane sesquiterpene with potential herbicidal activity, in β -cyclodextrins. *Organic & Biomolecular Chemistry*, 17: 2508-2515.
- MASI M., NOCERA P., ZONNO M.C., TUZI A., PESCIPELLI G., CIMMINO A., BOARI A., INFANTINO A., VURRO M., EVIDENTE A., 2018. Lentiquinones A, B, and C, phytotoxic anthraquinone derivatives isolated from *Ascochyta lentis*, a pathogen of Lentil. *Journal of Natural Products*, 81(12):2700-2709.
- MÜLLER-SCHÄRER H., SUN Y., CHAUVEL B., KARRER G., KAZINCZI G., KUDSK P., LANSINK OUDE A.G.J.M., SCHAFFNER U., SKJOTH C.A., SMITH M., VURRO M., DE WEGER L.A., LOMMEN S.T.E., 2018. Cross-fertilizing weed science and plant invasion science to improve efficient management: A European challenge. *Basic and Applied Ecology*, 33: 1-13.
- MASI M., NOCERA P., BOARI A., CIMMINO A., ZONNO M.C., INFANTINO I., VURRO M., EVIDENTE A., 2018. Lathyroxins A and B, phytotoxic monosubstituted phenols isolated from *Ascochyta lentis* var. *lathyri*, a fungal pathogen of Grass Pea (*Lathyrus sativus*). *Journal of Natural Products*, 81(4): 1093-1097.
- RUBIALES D., FERNANDEZ-APARICIO M., VURRO M., EIZENBERG H., 2018. Editorial: Advances in Parasitic Weed Research. *Front. Plant Sci.*, 9, 236: 1-3.
- BLEVE G., GALLO A., ALTOMARE C., VURRO M., MAIORANO G., CARDINALI A., D'ANTUONO I., MARCHI G., MITA G., 2018. *In vitro* activity of antimicrobial compounds against *Xylella fastidiosa*, the causal agent of the olive quick decline syndrome in Apulia (Italy). *FEMS Microbiology Letters*, 365, 5, fnx281.
- VURRO M., BOARI A., CASELLA F., ZONNO M.C., 2018. Fungal phytotoxins in sustainable weed management. *Current Medicinal Chemistry*, 25(2): 268 - 286.
- MASI M., CIMMINO A., BOARI A., ZONNO M.C., GÓRECKI M., PESCIPELLI G., TUZI A., VURRO M., EVIDENTE A., 2017. Colletopyrandione, a new phytotoxic tetrasubstituted indolyldenepyrans-2,4-dione, and colletochlorins G and H, new tetrasubstituted chroman- and isochroman-3,5-diols isolated from *Colletotrichum higginsianum*. *Tetrahedron*, 73(47): 6644-6650.
- VURRO M., PEREZ-DE-LUQUE A., EIZENBERG H., 2017. Parasitic weeds. In: *Weed Research: Expanding Horizons*, First Edition. Edited by Paul E. Hatcher and Robert J. Froud-Williams. Chapter 11, pp. 313-354.
- HERSHENHORN J., CASELLA F., VURRO M., 2016. Weed biocontrol with fungi: past, present and future. *Biocontrol Science and Technology*, 26(10): 1313-1328.
- VURRO M., PRANDI C., BAROCCIO F., 2016. Strigolactones: how far is their commercial use for agricultural purposes? *Pest Management Science*, 72:2026-2034.
- BOARI A., CIASCA B., PINEDA-MARTOS R., LATTANZIO VMT, YONEYAMA K., VURRO M., 2016. Parasitic weed management by using strigolactones-degrading fungi. *Pest Management Science*, 72:2043-2047.