

# VINCENZO LIONETTI

## Curriculum Vitae

Place Rome

Date 28/08/2018

### Education

Type	Year	Institution	Notes (Degree, Experience,...)
PhD	2008	Sapienza University of Rome	PhD Fellow in Plant Sciences. Title of Thesis: Role of pectins in plant growth and defense against pathogens. Control of methylesterification by proteinaceous inhibitors of pectin methylesterase
University graduation	2004	Sapienza University of Rome	Laurea degree in Biological Sciences, University of Rome "La Sapienza". Title of thesis: Effetti regolatori degli Oligogalatturonidi in <i>Arabidopsis thaliana</i>
Licensure	2017	Sapienza University of Rome	National Scientific Habilitation for Associate Professor for 05/A2 – Fisiologia Vegetale (BIO/04) and for 07/D1- Patologia Vegetale (ssd AGR/12)
Licensure	2012	Sapienza University of Rome	Qualification to practice the profession of Biologist
Licensure	2011	Consiglio Nazionale delle Ricerche (CNR)	Habilitation to researcher position (Bando 364.96)

### Training activity post-laurea

Training course	IMARIS-Analisi quantitativa delle immagini	Rome 12 march 2012
Training course	Luminometer-fluorimeter Glomax-Promega	Rome 15 september 2009
Training course	Intellectual property right and patentability - WALLNET project	Rome il 17 june 2008
Training course	Plant cell and molecular biology of plant cell walls - WALLNET project	Versailles 11 june 2007
Summer school	Fluorescence Microscopy- Tecniche di microscopia d'avanguardia come strumento di analisi cellulare e tissutale in organismi vegetali	Sabaudia 16-19 october 2006

## Appointments

### Professional Appointments

Start	End	Institution	Position
25/05/2017	24/05/2020	Dipartimento di Biologia e Biotecnologie "C. Darwin, Sapienza University of Rome	Researcher fixed-term (Ricercatore a tempo determinato- tipologia A Gelmini): Basi genetiche, biochimiche e molecolari delle interazioni fra piante e microorganismi con particolare riguardo al ruolo della parete cellulare nella resistenza alle malattie e nella recalcitranza alla saccarificazione enzimatica
02/2017	05/2017	Collaborazione occasionale con Società di divulgazione scientifica "Coop Culture"	Operatore didattico alla mostra "DNA. IL GRANDE LIBRO DELLA VITA DA MENDEL ALLA GENOMICA". Palazzo delle Esposizioni -Roma
01/01/2016	31/12/2016	Dipartimento di Biologia e Biotecnologie "C. Darwin, Sapienza University of Rome	Research Fellow: Identificazione di geni vegetali associati alla degradabilità della parete cellulare e loro utilizzo come marcatori molecolari per programmi di breeding
01/01/2014	31/12/2015	Dipartimento di Biologia e Biotecnologie "C. Darwin, Sapienza University of Rome	Research Fellow: Identificazione di tratti quantitativi della parete cellulare correlati alla resistenza alla fusariosi in grano
01/01/2013	31/12/2013	Dipartimento di Biologia e Biotecnologie "C. Darwin, Sapienza University of Rome	Research Fellow: Exploiting the saccharification potential of pathogenic microorganisms to improve biofuel production from plants
01/01/2010	31/12/2012	Dipartimento di Biologia e Biotecnologie "C. Darwin" and Dipartimento di Biologia Vegetale, Sapienza University of Rome	Researcher fixed-term (Ricercatore a tempo determinato- tipologia A Moratti): Exploiting the saccharification potential of pathogenic microorganisms to improve biofuel production from plants
01/03/2008	31/12/2009	Dipartimento di Biologia Vegetale, Sapienza University of Rome	Research Fellow: Parete cellulare nel riconoscimento e segnalazione per la difesa delle piante
15/09/2004	31/10/2004	Dipartimento di Biologia Vegetale, Sapienza University of Rome	Research Fellowship: Caratterizzazione dell'inibitore della pectin metilesterasi in <i>Arabidopsis thaliana</i>

## Fellowships to perform research in institutes abroad or support to international conferences

11/06/2007	25/06/2007	L'Institut National de la Recherche Agronomique (INRA) - Versailles	Research Fellowship – Funded by European Molecular Biology Organization (EMBO): Analisi delle pareti cellulari di piante di <i>Arabidopsis thaliana</i> sovraesprimenti inibitori di pectina metilesterasi attraverso spettrometria FTIR
28/05-01/06/2006	Supporting fellowship for 3th EPSO Conference Hungary		
01/05/2005	31/07/2005	Max Planck Institute - Potsdam, Berlino	Research Fellowship – Funded by European Molecular Biology Organization (EMBO): Caratterizzazione attraverso analisi spettrometria di massa -OLIMP delle pareti cellulari di piante di <i>Arabidopsis thaliana</i> trasformate con inibitori delle pectine metilesterasi

## Editorial positions

Start	End	Institution	Position
2014	2018	Frontiers in Plant Science – Plant biotic interaction	Associate Editor
2016	2018	Frontiers in Microbiology – Plant biotic interaction	Associate Editor
2012	2018	Plant Physiology, Plant Journal, New Phytologist, Plant Biotechnology Journal, BMC Plant Biology, Frontiers in Plant Science, Functional Plant Biology, Scientific report-Nature	Ad hoc Reviewer
2014	Editor of the Research Topic “Plant cell wall in pathogenesis, parasitism and symbiosis”. Frontiers in plant science. e-book ISSN 1664-8714 ISBN 978-2-88919-442-1. <a href="https://www.frontiersin.org/research-topics/1463/plant-cell-wall-in-pathogenesis-parasitism-and-symbiosis">https://www.frontiersin.org/research-topics/1463/plant-cell-wall-in-pathogenesis-parasitism-and-symbiosis</a>		

## Academic responsibilities:

2018 Today	Member of the board of the Ph.D. School in Cellular and Developmental Biology, Department of Biology and Biotechnology "C. Darwin" Sapienza University of Rome.
2010-2012	Member of the board of the Ph.D. School in Cellular and Developmental Biology, Department of Biology and Biotechnology "C. Darwin" Sapienza University of Rome.

## Other responsibilities:

Sept 2017	Chairman for the admission test to the Degree Course of the Faculty of Mathematics, Physics and Natural Sciences (- D.R. No. 2198)
May 2017	Member of the evaluation committee for the degree in biological sciences, Faculty of

## Teaching experience

### Frontal lectures

Year	Institution	Lecture/Course
2017/18	Sapienza Università di Roma	Fisiologia Vegetale- Scienze Biologiche della facoltà di Scienze Matematiche, Fisiche e Naturali-9CFU
2016/17	Sapienza Università di Roma	Fisiologia Vegetale- Competition notice: Scienze Biologiche della facoltà di Scienze Matematiche, Fisiche e Naturali-6CFU
2015/16	Sapienza Università di Roma	Fisiologia Vegetale- Competition notice: Scienze Biologiche della facoltà di Scienze Matematiche, Fisiche e Naturali-6CFU
2014/15	Sapienza Università di Roma	Fisiologia Vegetale- Competition notice: Scienze Biologiche della facoltà di Scienze Matematiche, Fisiche e Naturali-6CFU
2013/14	Sapienza Università di Roma	Fisiologia Vegetale- Competition notice: Scienze Biologiche della facoltà di Scienze Matematiche, Fisiche e Naturali-6CFU
2012/13	Sapienza Università di Roma	Fisiologia Vegetale- Competition notice: Scienze Biologiche della facoltà di Scienze Matematiche, Fisiche e Naturali- 4CFU
2011/12	Sapienza Università di Roma	Fisiologia Vegetale/Fitochimica - Competition notice: Scienze Farmaceutiche Applicate della Facoltà di Farmacia e Medicina-6CFU
2010/11	Sapienza Università di Roma	Fisiologia Vegetale/Fitochimica Competition notice: Scienze Farmaceutiche Applicate della Facoltà di Farmacia e Medicina-6CFU

### Supervisor activities

2008-2018	Sapienza Università di Roma	Supervisor of 5 undergraduate students, 6 graduate (master) students for national Laurea Degrees in Biological Sciences and Biotechnology and 2 PhD student in Cell and Developmental Biology. Department of Plant Biology and Department of Biology and Biotechnology C. Darwin, Università di Roma La Sapienza. Supervisor of two visiting students for the Master nutrition and Food safety-University of Marseille - France
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### Fellowships for Tutoring activity

2008	Sapienza University of Rome	Fellowship for tutoring activity. Theoretical and practical training in "Biochimica ed Ecofisiologia vegetale", corso di laurea in Biotecnologie
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		Agroindustriali (Polo Latina).
2007	Sapienza University of Rome	Fellowship for tutoring activity. Theoretical and practical training in Botanica e Diversità Vegetale, corso di laurea in Scienze Biologiche
2002	Sapienza University of Rome	Fellowship for tutoring activity. Theoretical and practical training in Chimica e Propedeutica Biochimica, corso di laurea in Medicina e Chirurgia della facoltà di Medicina e Chirurgia

### Society memberships, Awards and Honors

Year	Title
2017-Today	Member of the Italian Society of Plant Biology
2017	Member of the International Society for Molecular Plant-Microbe Interactions (IS-MPMI)

### Funding Information [grants as PI-principal investigator or I-investigator]

#### PI-principal investigator

2017	“Torno Subito” Rimodellamento della parete cellulare nell'interfaccia pianta-patogeno”	Regione Lazio	Food and accomodation Dott.ssa Irene Romano to Turin. Partner: Dr. Balestrini R. Istituto per la Protezione Sostenibile delle Piante (IPSP)-CNR di Torino.
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Positive evaluations in not-funded project:

Year	Title	Program	Grant value
2015	Revealing the control strategies on pectin methyl esterification exploited by plants and pathogens to prevail on the cell wall battleground	European Research Council (ERC) Starting grant	Score A-fully meets the ERC's excellence criterion and is recommended for funding if sufficient funds are available
2014	Targeted modification of cell wall polysaccharides to improve resistance of wheat to fungal pathogens	Scientific Independence of young Researcher (SIR)	Score A-La proposta è di alta qualità ed idonea a passare alla fase 2 di valutazione

### Partecipation as investigator in research projects

Year	Title	Program	Grant value (Euro)
2017	Plant cell wall-derived damage-associated molecular patterns: signaling and homeostasis in immunity and development	Progetto di ateneo- Ricerche universitarie	15.000
2016	Pectin methylesterification in plant immunity: Identification of enzymes (PMEs) and inhibitors (PMEIs) involved in plant resistance against fungal necrotrophs	Progetto di ateneo- Ricerche universitarie	14.000
2013-2015	Determinanti della parete cellulare per migliorare la resistenza del frumento duro alle fusariosi	PRIN	175.000
2015	Control of pectin methyl esterification during fruit development: Characterization of novel pectin methylesterase inhibitors in Vitis vinifera L	Progetto di ateneo- Ricerche universitarie	5.000
2011	Biosensore (SPR) per analisi di interazioni biomolecolari	Progetto di ateneo- Acquisizione di medie e grandi attrezzature scientifiche	40.000
2010	Microscopia confocale laser per lo studio a livello tissutale, cellulare, subcellulare e molecolare di processi di segnalazione, regolazione, sviluppo e difesa in sistemi animali e vegetali	Progetto di ateneo- Acquisizione di medie e grandi attrezzature scientifiche	90.000
2010	Miglioramento della produzione di biocarburanti tramite alterazione della componente pectica della parete cellulare vegetale	Progetto di ateneo- Ricerche universitarie	31.500
2010	Tailoring the composition of cell wall polymers to improve processing of biomass.	Collaborazione Italo-Britannica per giovani ricercatori 2009-2010 cofinanziato dal British council e da MIUR	5.000
2009-2014	Fuel path exploiting the saccharification potential of pathogenic microorganisms to improve biofuel production from plants	European Research Council. Advanced grant Prof. F. Cervone	2.100.000
2007-2009	Inibitori di enzimi pectici nel controllo delle malattie fungine e virali	PRIN	38.600
2002-2004	Ruolo dell'inibitore della pectina metilesterasi nello sviluppo e nella difesa delle piante	PRIN	63.600

## Research Activities

### Keywords

Plant Defence
Cell Wall Integrity
Cell wall degrading Enzymes
Plant cell wall
Defence signalling
Cell Wall interactome
Biochemistry
Fungal/bacterial/viral pathogens
Molecular Biology
Glycomics
Enzymatic saccharification of lignocellulosic biomasses

### Brief Description

Dr. Lionetti has a proven track record in the field of plant pathogen interactions. He is expert in the dynamic modifications of the composition and structure of the cell wall polysaccharides during pathogen infection. Cell Wall Degrading Enzymes (CWDEs) are expressed by pathogens during host invasion to penetrate the cell wall barrier and colonize the tissue. Plants have evolved the ability to sense loss of cell wall integrity produced by pathogen attack and trigger defence responses leading to an improved resistance to disease. Dr Lionetti has made significant contribution to understanding the molecular bases of plant defence to biotic stresses. He demonstrated that the modulation of the expression of CWDEs or their inhibitors in planta represents a useful tool to improve plant resistance to pathogens and to investigate the role of altered structure and integrity of wall polysaccharides in plant-pathogen interactions. For example, by overexpressing a fungal endo-polygalacturonase in tobacco and Arabidopsis he contributed to dissect the signalling triggered by oligogalacturonides (OGs), the degradation products of pectin with elicitor activity and inducers of plant protection from pests. The same approach was applied to dissect the plant responses to a fungal acetyltransferase and a feruloyltransferase using *Arabidopsis* and *Brachipodium*. Moreover, he and his colleagues demonstrated in *Arabidopsis* and in *Wheat* that alterations of pectin esterification impact on cell wall degradability and, as a result of it, on plant susceptibility to pathogens. In more recent work, Dr. Lionetti applying his competence in glycomics of cell wall polysaccharides, uncovered specific cell wall components remodelled in Arabidopsis and wheat to resist to fungal necrotrophs. He also proposed biotechnological applications of the CWDEs and their inhibitors to improve saccharification of cell wall polysaccharides, the quality of plant derived products, and protoplast isolation. He developed new methodologies to investigate plant defence mechanisms against biotic stresses.

## Skills

### Transversal skills

Strong Problem solving skills, marked capacity for teamwork, ability to lead through influence and energize the team as needed, high level of responsibility, excellent communication and interpersonal skills and strong inclination to teaching.

### Personal skills

Molecular Biology: Nucleic acid Extraction, Protein extraction, analysis of DNA, RNA and Proteins, Agarose gel electrophoresis, Western-Northern and Southern blotting, preparation of constructs for the transformation of bacteria and plants. Biochemistry: Enzymatic Saccharification and hydrolysis of the cell wall, colorimetric assays for the quantification of enzymatic activity and sugars, heterologous protein expression in yeast, protein purification, FPLC, Elisa. Microbiology and Micology: cultivation of pathogenic fungi (*B. cinerea*, *Fusarium graminearum*, *Bipolaris sorokiniana*), yeast (*Pichia pastoris*), bacteria (*E. carotovora*, *E. coli* and *P.syringae*). Knowledge of different plant model systems (Arabidopsis, tobacco, tomato, wheat, brachipodium). Use of greenhouses and growth chambers. Plant infection methods. Infection with fungal, bacterial and viral organisms. Microscopy: tissue fixation techniques, histochemical and immunochemical staining.

Instrumentations: HPLC, PCR, FPLC, qRT-PCR, MALDI-TOF, gas insufflator, Confocal Microscopes, Epifluorescence Microscopes, Chemidoc™ MP and GELDOC System (Bio-Rad), Laboratory Fume Hoods, Centrifuges, freeze dryers, spectrophotometers, Elisa readers, Luminometer and Fluorimeter,

### Computer skills and bioinformatic competences:

Microsoft Windows XP, Microsoft Excel, Word, Powerpoint, ImageJ, Photoshop, Adobe illustrator, Paint. Bioinformatic analysis of nucleic acids and proteins (DNA MAN, MEGA, EXPASY, Geninvestigator).

Flexibility of instrumentation management software (HPLC-Dionex Chromeleon, qRT-PCR- Biorad-CFX Manager Software). Literature management (Reference Manager, Endnote).

## Summary of Scientific Achievements

### Data Base=Scopus

#### Overall scientific production

Product type	Number	Start	End
Papers [international]	24;with IF=22; without IF=2	2007	2018
Co-author of books	3	2008	2015
Patents	2	with international extensions	

Total Impact factor (IF)	93,979
Average IF	$93,979/24=3.92$
Total Citations	959
Average Citations per Product	$959/24=39,96$
Hirsch (H) index	13
Hirsch (H) index last 10 years	12
Normalized H index <sup>1</sup>	$13/11 =1,18$
Pre-eminence position <sup>2</sup>	19

<sup>1</sup>H index divided by the academic seniority.

<sup>2</sup>Pre-eminence position (first, last name or corresponding author)

#### Book chapters:

1. “La resistenza ai patogeni: approcci biotecnologici sostenibili per il miglioramento della resistenza alle malattie” LIONETTI V E CERVONE F. BIOTECNOLOGIE SOSTENIBILI. Edagricole New Business Media ISBN 978-88-506-5534-2 Febbraio 2018
2. RAIOLA A, LIONETTI V., ELMAGHRABY I, DE LORENZO G, CERVONE F AND BELLINCAMPI D (2010). High methyl-esterification of pectin reduces the susceptibility of plants to fungal and bacterial pathogens. Biology of Plant Microbe Interactions CD, vol. 7, ST. PAUL, MN: eds. International Society for Molecular Plant-Mic, ISBN/ISSN: 978-0-9654625-6-3.
3. FERRARI S, GALLETTI R, LIONETTI V., MATTEI B, CASASOLI M, PONTIGGIA D, CERVONE F, DE LORENZO G (2008). Oligogalacturonide signalling: sensing a breach in the wall. Biology of Plant-Microbe Interactions CD, vol. 6, ST. PAUL, MN: eds. International Society for Molecular Plant-Mic, ISBN/ISSN: 978-0-9654625-5-6

#### Patents details

1. Cervone F, De Lorenzo G, Bellincampi D, Ferrari S, Lionetti V., Salvi G, Francocci F (2008). Uso di piante con un ridotto livello di omogalatturonano de-esterificato nella parete cellulare o parti di esse per migliorare la saccarificazione di biomasse vegetali. RM2008A000696
2. Lante A, Zocca F, Spettoli P, Lamolino G, Raiola A, Lionetti V., Bellincampi D, Giovane A, Camardella L (2007). Uso di un inibitore proteico della pectina metilesterasi per la riduzione della formazione di metanolo in mosti di uva e vinacce e processo per la stessa. PD2007A000065. Università di Padova
3. Estensione europea del brevetto italiano- Lante A, Zocca F, Spettoli P, Lomolino G, Raiola A, Bellincampi D, Lionetti V., Giovane A, Camardella L (2008). Use Of A Protein Inhibitor Of Pectin



Methylesterase For Reducing Methanol Formation In Grape Must And Marc, And Process Therefor. WO/2008/104555

4. Estensione del brevetto italiano- Cervone F, De Lorenzo G, Bellincampi D, Ferrari S, Lionetti V., Salvi G, Francocci F, Bellincampi D (2010). Use of plants with reduced levels of de-esterified homogalacturonan in the cell wall or portion thereof for improving the saccharification of plant biomasses. US20100170008. La Sapienza Università di Roma

#### Part IX– Selected Publications

Product type	Number	Start	End
Papers [international]	20	2008	2018
Pre-eminence position*	15		

\*Pre-eminence position (first, last name or corresponding author)

**List of the publications selected for the evaluation.** For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

\*Pre-eminence position (first, last name or corresponding author) is indicated with an asterisk near the surname of the author for each publication. The asterisk is also added to other authors with the same merits as the candidate

1. GIANCASPRO A\*, LIONETTI V\*, GIOVE SL, ZITO D, FABRI E, REEM N, ZABOTINA OA, DE ANGELIS E, MONACI L, BELLINCAMPI D, GADALETA A (2018). Cell wall features transferred from common into durum wheat to improve Fusarium Head Blight resistance. *Plant Science*, May 274:121-128 doi:10.1016/j.plantsci.2018.05.016 (\*The authors contributed equally to this work and are considered co-first authors). *IF2017*= 3.712; *Scopus Citations* 0

2. RIGANO MM\*, LIONETTI V\*, RAIOLA A, BELLINCAMPI D, BARONE A. (2018). Pectic enzymes as potential enhancers of ascorbic acid production through the D-galacturonate pathway in Solanaceae. *Plant Science*. Jan; 266:55-63. (\*The authors contributed equally to this work and are considered co-first authors). *IF2017*= 3.712; *Scopus Citations* 0.

3. STAVOLONE L, LIONETTI V\* (2017). Extracellular Matrix in Plants and Animals: Hooks and Locks for Viruses. *Front Microbiol*. Sep 12;8:1760. **Corresponding author**. *IF*= 4.019; *Scopus Citations* 3.

4. LIONETTI V\*, FABRI E, DE CAROLI M, HANSEN AR, WILLATS WG, PIRO G, BELLINCAMPI D. (2017) Three Pectin Methylesterase Inhibitors Protect Cell Wall Integrity for Arabidopsis Immunity to Botrytis. *PLANT PHYSIOL*. Mar; 173:1844-1863. *IF*= 5.949; *Scopus Citations* 12.

5. TUNDO S, KALUNKE RM, JANNI M, VOLPI C, LIONETTI V, BELLINCAMPI D, FAVARON F, D'OVIDIO R. (2016). Pyramiding PvPGIP2 and TAXI-III but not PvPGIP2 and PME1 enhances wheat resistance against *Fusarium graminearum*. *MPMI* 2016 Jul 1. *IF*= 4.192; *Scopus Citations* 10.

6. REEM NT, POGORELKO G, LIONETTI V, CHAMBERS L, HELD MA, BELLINCAMPI D, ZABOTINA OA. (2016) Decreased Polysaccharide Feruloylation Compromises Plant Cell Wall Integrity and Increases Susceptibility to Necrotrophic Fungal Pathogens. *FRONT PLANT SCI*. 2016 May 10;7:630. doi: 10.3389/fpls.2016.00630. *IF*= 4.291; *Scopus Citations* 5.

7. LIONETTI V\*, RAIOLA A, MATTEI B, BELLINCAMPI D. (2015) The Grapevine VvPME11 Gene Encodes a Novel Functional Pectin Methylesterase Inhibitor Associated to Grape Berry Development. *PLOS ONE*. 10(7):e0133810. *IF*=3.057; *Scopus Citations* 11.

8. LIONETTI V\* (2015) PECTOPLATE: the simultaneous phenotyping of pectin methylesterases, pectinases, and oligogalacturonides in plants during biotic stresses. *FRONT PLANT SCI*. May 13;6:331. **Corresponding author**. *IF*= 4.495; *Scopus Citations* 10.

9. LIONETTI V\* GIANCASPRO A, FABRI E, GIOVE SL, REEM N, ZABOTINA OA, BLANCO A, GADALETA A, BELLINCAMPI D. (2015) Cell wall traits as potential resources to improve resistance

of durum wheat against *Fusarium graminearum*. BMC PLANT BIOL. 19;15:6. *IF*= 3.631; *Scopus Citations* 26.

**press media release from BMC plant Biology (<https://www.biomedcentral.com/about/press-centre/science-press-releases/19-01-2015>). L'articolo è stato segnalato da diverse riviste web nazionali e internazionali. E' possibile visionare il contenuto del comunicato stampa nei titoli**

10. LIONETTI V\*, CERVONE F, DE LORENZO G (2015) A lower content of de-methylesterified homogalacturonan improves enzymatic cell separation and isolation of mesophyll protoplasts in Arabidopsis. PHYTOCHEMISTRY 112:188-94. *IF*= 2.779; *Scopus Citations* 9.

11. BELLINCAMPI D, CERVONE F and LIONETTI V\* (2014) Plant cell wall dynamics and wall-related susceptibility in plant-pathogen interactions. FRONT. PLANT SCI. 5:228. **Corresponding author** *IF*= 3.948; *Scopus Citations* 99.

12. FRANCOCCI F\*, BASTIANELLI E\*, LIONETTI V\*, FERRARI S, DE LORENZO G, BELLINCAMPI D, CERVONE F. (2013) Analysis of pectin mutants and natural accessions of Arabidopsis highlights the impact of de-methyl-esterified homogalacturonan on tissue saccharification. BIOTECHNOL BIOFUELS. 18;6(1):163 (\*The authors contributed equally to this work and are considered co-first authors) *IF*=6.221; *Scopus Citation* 21.

13. LIONETTI V\*, RAIOLA A\*, CERVONE F, BELLINCAMPI D.(2013). Transgenic expression of pectin methylesterase inhibitors limits tobamovirus spread in tobacco and Arabidopsis. MOL PLANT PATHOL. 15(3):265-74. (\*The authors contributed equally to this work and are considered co-first authors).*IF*= 4.485; *Scopus Citations* 31.

14. POGORELKO GV, LIONETTI V, FURSOVA OV, SUNDARAM RM, QI M, WHITHAM SA, BOGDANOVA AJ, BELLINCAMPI D, ZABOTINA OA (2013). Arabidopsis and Brachipodium transgenic plants expressing *A. nidulans* acetyltransferase have decreased degree of polysaccharide acetylation and increased resistance to pathogens. PLANT PHYSIOLOGY. 162(1):9-23 *IF*=7.394; *Scopus Citations* 46.

15. LIONETTI V\*, CERVONE F. AND BELLINCAMPI D. (2012) Methyl esterification of pectin plays a role during plant-pathogen interactions and affects plant resistance to diseases. JOURNAL OF PLANT PHYSIOLOGY 169 (16):1623-1630. *IF*=2.699; *Scopus Citations* 85.

16. RECA IB\*, LIONETTI V\*, CAMARDELLA L, D'AVINO R, GIARDINA T, CERVONE F, BELLINCAMPI D. (2012). A functional pectin methylesterase inhibitor protein (solyPMEI) is expressed during tomato fruit ripening and interacts with PME-1. PLANT MOLECULAR BIOLOGY 79(4-5):429-42 (\* The authors contributed equally to this work and are considered co-first authors). *IF* =3.403; *Scopus Citations* 32.

17. VOLPI C, JANNI M, LIONETTI V, BELLINCAMPI D, FAVARON F, D'OVIDIO R. (2011). The Ectopic Expression of a Pectin Methyl Esterase Inhibitor Increases Pectin Methyl Esterification and Limits Fungal Diseases in Wheat. MPMI 24(9):1012-1019 *IF*= 4.431; *Scopus Citations* 73.

18. RAIOLA A\*, LIONETTI V\*, ELMAGHRABY I, IMMERZEEL P, MELLEROWICZ E.J, SALVI G, CERVONE F, BELLINCAMPI D (2011). Pectin Methylesterase Is Induced in Arabidopsis upon Infection and Is Necessary for a Successful Colonization by Necrotrophic Pathogens. MPMI 24 (4):432-40 (\*The authors contributed equally to this work and are considered co-first authors) *IF*= 4.431; *Scopus Citations* 69.

19. LIONETTI V\*, FRANCOCCI F\*, FERRARI S\*, VOLPI C\*, BELLINCAMPI D\*, GALLETTI R, DOVIDIO R, DE LORENZO G, CERVONE F (2010). Engineering the cell wall by reducing de-methyl-esterified homogalacturonan improves saccharification of plant tissues for bioconversion. PNAS, 107; 616-621. (\*The authors contributed equally to this work and are considered co-first authors). *IF*= 9.771; *Scopus Citations* 120.

**press release Sapienza <http://www.uniroma1.it/sapienza/archivionotizie/biocombustibili-meno-cari-grazie-un-brevetto-della-sapienza>. L'articolo è stato segnalato da diverse riviste web nazionali e internazionali. E' possibile visionare il contenuto del comunicato stampa nei titoli**

20. FERRARI S, GALLETTI R, PONTIGGIA D, MANFREDINI C, LIONETTI V., BELLINCAMPI D, CERVONE F, DE LORENZO G (2008). Transgenic Expression of a Fungal Endo-Polygalacturonase Increases Plant Resistance to Pathogens and Reduces Auxin Sensitivity. *PLANT PHYSIOLOGY*, 146 (2); 669-681 *IF=6.110;Scopus Citations 71*.

**Other publications not selected for the evaluation:**

21. LIONETTI V.\*, MÉTRAUX JP. Plant cell wall in pathogenesis, parasitism and symbiosis. *FRONT PLANT SCI*. 2014 Nov 6; 5:612. **Corresponding author** *IF= 3.948; Scopus Citations 8*.

22. LIONETTI V.\*, RAIOLA A, CERVONE F, BELLINCAMPI D. (2014) How pectin methylesterases and their inhibitors affect the spreading of tobamovirus? *PLANT SIGNALING AND BEHAVIORS*. 2014;9(12):e972863. NO *IF*; *Scopus Citations 7*.

23. POGORELKO GV\*, LIONETTI V.\*, BELLINCAMPI D, ZABOTINA OA Cell wall integrity: Targeted post-synthetic modifications to reveal its role in plant growth and defense against pathogens *PLANT SIGNALING AND BEHAVIOURS* Vol 8 (9), 2013 eLocation ID: e25435 (*\*The authors contributed equally to this work and are considered co-first authors; Scopus Citations 26*;

24. LIONETTI V.\*, RAIOLA A\*, CAMARDELLA L, GIOVANE A, OBEL N, PAULY M, FAVARON F, CERVONE F, BELLINCAMPI D (2007). Overexpression of pectin methylesterase inhibitors in Arabidopsis restricts fungal infection by *Botrytis cinerea*. *PLANT PHYSIOLOGY*, 143; 1871-1880 (*\*The authors contributed equally to this work and are considered co-first authors; IF=6.367;Scopus Citations 185*.

**Oral communications**

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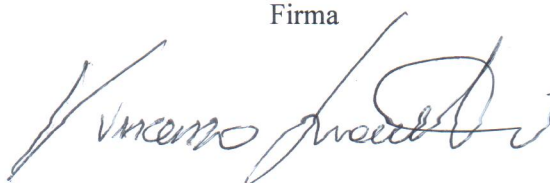
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Roma, li 28/08/2018

Firma

A handwritten signature in black ink, appearing to read 'Vincenzo Lionetti', written in a cursive style.