

PERSONAL INFORMATION

Pierre Pétriacq (PhD, FHEA)

Associate Professor

Director of *Bordeaux Metabolome*

ORCID: 0000-0001-8151-7420 [ResearchGate](#) score: 30.59 [H-index](#): 14



INSTITUTIONAL ADDRESS

University of Bordeaux, INRAE | UMR 1332 Biologie du Fruit et Pathologie

71 Avenue Édouard Bourlaux | F-33883 | Villenave d'Ornon | France

☎ +33 5 57 12 25 75 @ pierre.petriacq@inrae.fr

EDUCATION

- 2008 - 2011 **PhD** in Plant Biology, Plant Biology Institute, Uni. Paris-Sud, Orsay, FR (with honours)
2006 - 2008 **MSc** in Integrative Biology & Physiology, Uni. Pierre & Marie Curie, Paris, FR (with honours)
2005 - 2006 **BSc** in Biology & Ecology, Uni. Paris-Sud, Orsay, FR

CURRENT POSITION

- 2019 **Visiting Professor** for [GIP-TRIAD](#) program, Uni. Tsukuba, Tsukuba, JP
2018 **Director** of [Bordeaux Metabolome](#) facility, INRAE Bordeaux Nouvelle Aquitaine, FR
2017 **Associate Professor** in Biochemistry at the INRAE Laboratory *Fruit Biology and Pathology*, Uni. of Bordeaux, Villenave d'Ornon, FR
Guest Research Scientist, [biOMICS Facility](#), Uni. Sheffield, Sheffield, UK

PREVIOUS POSITIONS

- 2016 - 2017 **Group Leader** in Plant Metabolomics, P3 Institute, Uni. Sheffield, Sheffield, UK
2013 - 2016 **Postdoctoral Research Associate** in Prof. Ton's lab, Uni. Sheffield, UK
2011 - 2012 **Assistant Professor**, Plant Biology Institute, Uni. Paris-Sud, Orsay, FR

FELLOWSHIPS

- 2016 - 2017 P3 Institute independent research fellowship
2013 - 2016 Leverhulme Trust postdoctoral research fellowship

SUPERVISION OF GRADUATE STUDENTS AND DOCTORAL FELLOWS

Current students

Thomas Dussarrat (2019-2022, joint PhD with PUC, Chile and UB, FR), **Guillaume Decros** (2018-2021).

Past students

Will Buswell (Buswell et al., 2018), **Alex Williams** (Pétriacq et al., 2017b ; Williams et al., 2017 ; Williams et al., 2018), **Sam Wilkinson** (Wilkinson et al., 2018), **Roland Schwarzenbacher** (Williams et al., 2018 ; Buswell et al., 2018), **Nazariya Yahaya** (Yahaya et al., 2017), **Linda de Bont** (Pétriacq et al., 2012 ; 2013 ; 2017a).

TEACHING ACTIVITIES

- 2017 - present **Associate Professor**, Uni. Bordeaux, Bordeaux, FR
Biochemistry, Plant Biology & Physiology, level 1 to Master 2, **192 h** yearly
2013 - 2017 **Postdoctoral Research Associate/ Group Leader**, Uni. Sheffield, Sheffield, UK
Metabolomics and chemometrics, (under)graduates & PhD students, **31.5 h** (lectures)
Outreach events (*Discovery Nights* in mass spectrometry)
2011 - 2012 **Assistant Professor**, Uni. Paris-Sud, Orsay, FR
Plant Biology & Physiology, Methodology, level 1 to 3, **101.1 h** (lectures, practicals)
Outreach events (*Fête de la Science* in phytopathology)
2008 - 2011 **Teaching Assistant**, Uni. Paris-Sud, Orsay, FR
Plant Biology & Physiology, Methodology, level 1 to 3, **217.5 h** (lectures, practicals)
Outreach events (*Fête de la Science* in phytopathology)

EDITORIAL WORK

- 2019 - present Volume Editor for *Advance in Botanical Research (Vol 98 Plant Metabolomics)*
2018 - present Guest Associate Editor for [Frontiers in Plant Science](#) and [Metabolites](#)
2013 - present Review Editor for [Frontiers in Plant Science](#), *The Biochemical Journal*, *Plant Physiology*, *Plant Journal*, *New Phytologist*, *Scientific Reports*, *Plant & Cell Physiology*, *Plant and Soil*

INSTITUTIONAL RESPONSIBILITIES

- 2018 **President** of baccalaureate jury committees, Lycée Max Linder, Libourne, FR
2017 - present **Representative** for [MetaboHUB](#), the French infrastructure in Metabolomics & Fluxomics
2017 **EU Expert** in Plant Metabolomics (COST action FA1405), Uni. Jaume I, Castellon de la Plana, ES
2013 - present **Expert member** of Biological MS Facility ([biOMICS](#)), Uni. of Sheffield, Sheffield, UK

COMMISSIONS OF TRUST

- 2017 **PhD defence committee** for Jingfang Hao (Uni. Paris Sud, 27/11/2017), Javier Ribero Bravo (Uni. Granada, 14/06/2019) & Pauline Duminil (Uni. Paris Sud, 18/12/2019)
2015 **Selection committee** for PhD studentship through Leverhulme Trust, UK
2013 - present **Grant evaluation**: French ANR & LabEx, British BBSRC & Leverhulme Trust, Polish NSC, Austrian Science Fund (FWF)

FUNDING (past and current)

- 2020-21 FRUITO (Uni. Bordeaux, **30k €**) *Coordinator*
2020-25 UNTWIST H2020 (*Unravelling camelina tolerance to drought/heat* (INRAE, **385k €**) *Task leader*
2020-22 Swiss NSF: *Essential Oil volatiles as a sustainable alternative to pesticides* (Haute école de viticulture et œnologie, **319k CHF**) *Task leader*
2020-25 MetaboHUB2.0 (INRAE, **2.9M €**) *WP1 deputy leader*
2017 IiKE Grant on *soil metabolomics* (ADAS & Uni. Sheffield, **£ 16k**) *Coordinator*
2015 Wolfson Grant to purchase qTOF MS (Uni. Sheffield, **£ 200k**) *Partner*
2014 Wolfson Grant to purchase a UPLC (Uni. Sheffield, **£ 15k**) *Coordinator*
2008 BQR Project to purchase semi-prep HPLC (Uni. Paris-Sud, B. Gakiere, **40k €**) *Partner*

MAJOR COLLABORATIONS

NAD signalling

Bertrand Gakière, Uni. Paris-Sud, Orsay, FR
Alisdair Fernie, Max Planck Institute of Molecular Plant Physiology, Golm, DE
Shin-nosuke Hashida, Central Research Institute of Electric Power Industry (CRIEPI), Chiba, JP

Plant metabolomics

Victor Flors, Uni. Jaume I, Castelló de la Plana, ES
Guillaume Tcherkez, The Australian National University, Canberra, AU

Plant - soil interactions & rhizochemistry

Jurriaan Ton/Steve Rolfe/Anne Cotton, Uni. Sheffield, Sheffield, UK
Corné Pieterse/Roeland Berendsen, Uni. Utrecht, Utrecht, NL

Priming of defence responses & hormonal signalling

Estrella Luna Díez, Uni. Birmingham, Birmingham, UK
Ana Lopez Sanchez, Madrid, ES

FIVE SELECTED PUBLICATIONS

A complete list is available [here](#) (29 including 8 as first author, 7 as last author and 14 as corresponding author).

Gakière B, Fernie A.R, **Pétriaccq P*** (2018) More to NAD⁺ than meet the eye: a regulator of metabolic pools and gene expression in Arabidopsis. *Free Radical Biology and Medicine* DOI: 10.1016/j.freeradbiomed.2018.01.003.

Pétriaccq P*, Williams A, Cotton T.E.A, McFarlane A, Rolfe S.A, Ton J. (2017b) Metabolite profiling of non-sterile rhizosphere soil. *Plant J.* **92**: 147–162.

Pétriaccq P, Stassen JHM, Ton J. (2016a) Spore density determines infection strategy by the plant-pathogenic fungus *Plectosphaerella cucumerina*. *Plant Physiol.* **170**: 2325-2339.

Luna E, van Hulten M, Zhang Y, Berkowitz O, López A, **Pétriaccq P**, Sellwood MA, Chen B, Burrell M, van de Meene A, Pieterse CM, Flors V, Ton J. (2014) Plant perception of β -aminobutyric acid is mediated by an aspartyl-tRNA synthetase. *Nat Chem Biol.* **10**(6): 450-456.

INVITED PRESENTATIONS

To national and international meetings:

- 2019** **Pétriaccq P**, Bouchereau A. Ressources, organisation et orientations nationales de la métabolomique végétale dans le secteur agronomique. Journées Scientifiques du Département BAP, Giens, FR
- 2019** **Pétriaccq P**, Fouillen J, Valls J. Metabolomics and plant breeding at MetaboHUB-Bordeaux. 7èmes Journées Scientifiques MetaboHUB, Bordeaux, FR
- 2018** **Pétriaccq P**, Gibon Y, Deborde C, Moing A. Plant metabolomics to decipher plant performance through biomarker discovery. Procopé Franco-Allemand de Métabolomique végétale, Halle, DE
- 2018** **Pétriaccq P**, Deborde C, Gibon Y, Bouchereau A, Moing A. Plant Biology and Breeding Division. Procopé Franco-Allemand de Métabolomique végétale, Halle, DE
- 2018** **Pétriaccq P**, Moing A. Proof of concept about plant phenotyping for breeding. 6èmes Journées Scientifiques Internationales MetaboHUB, Saint Raphaël, FR
- 2015** **Pétriaccq P**, Stassen JHM, Ton J. Spore density determines infection strategy by the plant-pathogenic fungus *Plectosphaerella cucumerina*. SEB meeting, Prague, CZ
- 2011** **Pétriaccq P**, de Bont L, Hager J, Didierlaurent L, Mauve C, Guérard F, Noctor G, Pelletier S, Renou JP, Tcherkez G, Gakière B. Inducible NAD overproduction in *Arabidopsis* alters metabolic pools and gene expression correlated with increased salicylate content and resistance to *Pst-AvrRpm1*. 10ème Rencontres Plantes - Bactéries, Aussois, FR

To research institutes:

- 2020** **Pétriaccq P**. Metabolomics for the study of plant performance. Invitation Lopez A. Centro Nacional de Biotecnología, Madrid, ES
- 2019** **Pétriaccq P**. Introduction to redox regulations in plants. Invitation Kumagai Y. Université de Tsukuba, Tsukuba, JP
- 2019** **Pétriaccq P**. Plant metabolomics to decipher plant performance through biomarker discovery. CSIR-Indian Institute of Chemical Technology, Hyderabad, IN
- 2019** **Pétriaccq P**. Plant metabolomics at Bordeaux Metabolome Facility. Université d'Hyderabad, Hyderabad, IN
- 2017** **Pétriaccq P**. NAD, a regulator of immune responses. Invitation Gibon Y. INRA Bordeaux, FR
- 2017** **Pétriaccq P**, Williams A, Cotton T.E.A, McFarlane A, Rolfe S.A, Ton J. Comprehensive metabolic profiling of non-sterile rhizosphere soil. ADAS, High Mowthorpe, UK
- 2015** **Pétriaccq P**, Stassen JHM, Ton J. (2015) Spore density determines infection strategy by the plant-pathogenic fungus *Plectosphaerella cucumerina*. Invitation Flors V. Uni. Jaume I, Castelló de la Plana, ES
- 2013** **Pétriaccq P**, Gakière B. (2013) NAD signalling in plant-pathogen interactions. Invitation Ton J. Uni. of Sheffield, Sheffield, UK
- 2012** **Pétriaccq P**. (2012) NAD: not just a pawn on the board of plant-pathogen interactions. Invitation Jenkins G. Uni. of Glasgow, Glasgow, UK
- 2012** **Pétriaccq P**. (2012) NAD: not just a pawn on the board of plant-pathogen interactions. Invitation Grant M. Uni. of Exeter, Exeter, UK
- 2012** **Pétriaccq P**, Gakière B. (2012) La signalisation NAD dans les réactions de défense des plantes. Invitation Expert D. AgroParisTech, Paris, FR
- 2012** **Pétriaccq P**. (2012) NAD biosynthesis in plants. Invitation Coruzzi G. New York University, New York, US

ORGANISATION OF SCIENTIFIC EVENTS

- 2021** Plant Fluxomics symposium (Angers, 2021)
- 2020** Biocontrol 2020 meeting (Perpignan, 23-25/09/2020)
- 2019** Journées Annotation MS du réseau de métabolomique végétale du Département INRAE Biologie et Amélioration des Plantes (INRAE Bordeaux, 16-17/12/2019)
- 2019** Second Symposium French-Indien Hyderabad-Bordeaux sur les Plantes à Valeur Santé et Biomolécules d'Intérêt (Uni Bordeaux, 27-29/11/2019, <https://plant-sympo-19.sciencesconf.org/>)

AWARDS AND RECOGNITIONS

- 2015** **Fellow of the Higher Education in Academy**, Uni. Of Sheffield, Sheffield, UK
- 2015** **Certificate in Chemometrics**, Imperial International Phenome Training Centre, London, UK
- 2013** **Qualifications for Associate Professorship in French Universities**, Uni. Paris-Sud, Orsay, FR