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► TRAINING and UNIVERSITY CAREER

Qualifications

2003-2007 : Doctoral thesis in biology of organisms (section 68), Title of the thesis : « Protection of grapevines against *Botrytis cinerea* and stimulation of defense mechanisms using bacteria from the Champagne vineyard» - Université de Reims Champagne-Ardenne, Reims, France.

Academic career

2014 to date : Assistant Professor (CNU 66) - Université du Littoral Côte d'Opale
2010-2014 : Post-doctoral position – program CASDAR : Grapevine Trunk Diseases- Laboratoire de Stress, Défense et Reproduction des Plantes, Université de Reims Champagne-Ardenne, Reims, France
2008-2009 : Assistant Lecturer. Université de Reims Champagne-Ardenne, Reims, France
2006-2007 : Assistant Lecturer. Université de Reims-Champagne Ardenne, Reims, France
2003-2006 : Doctoral thesis position - section 68. Université de Reims Champagne Ardenne, Reims, France

► RESEARCH ACTIVITIES

General research activities – Keywords

Expertise in the plant responses during interaction with pathogenic or non-pathogenic organisms: characterization of defense mechanisms induced in response to the application of plant defense inducers (IR) or beneficial organisms (PGPR, mycorrhizal fungi) resulting in protection against powdery mildew and/or septoria in wheat.

PLANT-FUNGI INTERACTION, PLANT PATHOLOGY, BIOCONTROL, PLANT DEFENSE INDUCERS

Supervision of thesis students

Scientific supervision of **Samara Mejri** (25%), title of thesis: Efficacy and modes of action of plant defense stimulators on the wheat (*Triticum aestivum*) - septoria (*Mycosphaerella graminicola*) pathosystem.
Start date and defense date of the thesis: 01/01/2015 - 12/07/2018
Thesis director: Philippe Reignault / other supervisors : Béatrice Randoux, Ali Siah, funding : ISA de Lille, Groupe HEI-ISA-ISEN

Scientific supervision of **Alice Fourquez** (25%), title of thesis: Innovative solutions for wheat health combining applications of biostimulants and plant defense inducers.
Start date and defense date of the thesis: 01/11/2015 - 07/10/2019
Thesis director: Philippe Reignault/ other supervisors : Béatrice Randoux, Ali Siah, funding : Pôle Métropolitain de la Côte d'Opale (PMCO) / Fonds unique interministériel (FUI) IRIS+

Scientific supervision of **Nour-El-Houda Raouani** (20%), title of thesis: Screening of molecules and fungi for biocontrol of wheat powdery mildew: selection of a chito-oligosaccharide and an arbuscular mycorrhizal fungus, combined application and induced defense mechanisms.
Start date and defense date of the thesis: 6/10/2017 – 30/03/2021.

Thesis directors: Philippe Reignault / Anissa Lounès Hadj-Sahraoui other supervisors: Béatrice Randoux, Joël Fontaine, funding: InterReg France-Wallonie-Flandres Smartbiocontrol

Scientific supervision of **Rémi Platel** (25%), title of thesis: Screening, efficacy and modes of action of microbial biocontrol compounds on the wheat-*Zymoseptoria tritici* pathosystem.

Start date and defense date of the thesis: 29/10/2017 – 03/06/2021.

Thesis directors: Philippe Reignault / Ali Siah other supervisors : Béatrice Randoux, funding : InterReg France-Wallonie-Flandres Smartbiocontrol

Scientific supervision of **Camille Carton** (17%), title of thesis: Potentiality of new biosourced molecules, derived from plant, on plant resistance induction against plant diseases

Start date and defense date of the thesis : 20/09/2021 – to date.

Thesis directors : Anissa Lounes Hadj-Sahraoui/ Corinne Pau-Roblot- other supervisors : Béatrice Randoux, Jérôme Pelloux, Jean-Marc Domon, financement : Région Hauts de France / Université de Picardie Jules Verne (UPJV)/ ULCO

Scientific supervision of **Mathieu Delaeter** (33%), title of thesis: Development of molecular markers for resistance induction in wheat in response to mycorrhizal inoculation to control septoria.

Start date and defense date of the thesis: 01/10/2021 – to date.

Thesis directors : Anissa Lounès Hadj-Sahraoui / Maryline Magnin-Robert other supervisor : Béatrice Randoux, funding : Région Hauts de France / ULCO

Scientific supervision of **Mathie Craquelin** (25%), title of thesis: Chitosan and its derivatives: towards new biosourced active ingredients for biocontrol.

Start date and defense date of the thesis: 01/10/2022 – to date.

Thesis directors : Béatrice Randoux / Nicolas Joly other supervisor : Patrick Martin, funding : Région Hauts de France / ULCO

Scientific publications

T. Allario, A. Fourquez, **M. Magnin-Robert**, A. Siah, M. Gaucher, A. Maia-Grondard, M.N. Brisset, P. Huguéney, Ph. Reignault, R. Baltenweck, B. Randoux. 2023. Analysis of defense-related gene expression and leaf metabolome in wheat during the early infection stages of *Blumeria graminis* f. sp. *tritici*. *Phytopathology*, 113(8): 1537-1547.

S. Mejri, A. Ghinet, **M. Magnin-Robert** B. Randoux, C.-M. Abuhaie, B. Tisserant, P. Gautret, B. Rigo, P. Halama, Ph. Reignault, A. Siah. 2023. New plant immunity elicitors from a sugar beet byproduct protect wheat against *Zymoseptoria tritici*. *Scientific Reports*, 13(1):90.

R. Plantel, A. Lucau-Danila, R. Baltenweck, A. Maia-Grondard, P. Trapet, **M. Magnin-Robert**, B. Randoux, M. Duret, P. Halama, J.-L. Huilbert, F. Coutte, P. Huguéney, Ph. Reignault, A. Siah. 2023. Deciphering immune responses primed by a bacterial lipopeptide in wheat towards *Zymoseptoria tritici*. *Frontiers in Plant Science*. 13:1074447

N.E.H. Raouani, E. Claverie, B. Randoux, L. Chaveriat, Y. Yaseen, B. Yada, P. Martin, J.C. Cabrera, P. Jacques, P. Reignault, **M. Magnin-Robert**, A. Lounes-Hadj Sahraoui. 2022. Bio-inspired rhamnolipids, cyclic lipopeptides and a chito-oligosaccharide confer protection against wheat powdery mildew and inhibit conidia germination. *Molecules* (online)

R. Platel, A. Lucau-Danila, R. Baltenweck, A. Maia-Grondard, L. Chaveriat, **M. Magnin-Robert**, B. Randoux, P. Trapet, P. Halama, P. Martin, J.-L. Hilbert, M. Höfte, P. Huguéney, Ph. Reignault, A. Siah. 2022. Bioinspired rhamnolipid protects wheat against *Zymoseptoria tritici* through mainly direct antifungal activity and without major impact on leaf physiology. *Frontiers in Plant Science*, doi : doi.org/10.3389/fpls.2022.878272

A.C. Velho, P.Dall-Asta, M.C. de Borba, **M. Magnin-Robert**, Ph. Reignault, A. Siah, M.J.Stadnik, B. Randoux. Defense responses induced by ulvan in wheat against powdery mildew caused by *Blumeria graminis* f. sp. *tritici*. *Plant Physiology and Biochemistry*, **184**: 14-25, 2022.

M.C. de Borba, A.C. Veho, M.B. de Freitas, M. Holvoet, A. Maia-Grondard, R. Baltenweck, **M. Magnin-Robert**, B. Randoux, J.-L. Hilbert, Ph Reignault, P. Huguéney, A. Siah, M.J. Stadnick. 2022 A laminarin-based formulation protects wheat against *Zymoseptoria tritici* via direct antifungal activity and elicitation of host defense-related genes. *Plant Disease*, 2022, 106: 1408-1418

- R. Platel, M. Sawicki, Q. Esmael, B. Randoux, P. Trapet, M. EILGuilli, N. Chtaina, S. Arnauld, A. Bricout, A. Rochex, N. Bourdon, P. Halama, C. Jacquard, E. Ait Barka, Ph. Reignault, **M. Magnin-Robert**, A. Siah. **2022**. Isolation and identification of lipopeptide-producing *Bacillus velezensis* strains from wheat phyllosphere with antifungal activity against the wheat pathogen *Zymoseptoria tritici*. *Agronomy*. 12: 95.
- De Borba M.C., Velho A., Maia-Grondard A., Baltenweck R., **Magnin-Robert M.**, Randoux B., Holvoet M., Hilbert J.-L., Flahaut C., Reignault Ph., Huguency P., Stadnik M., Siah A. **2021** The algal polysaccharide ulvan induces resistance in wheat against *Zymoseptoria tritici* without major alteration of leaf metabolome. *Frontiers in Plant Science*, doi : 10.3389/fpls.2021.703712
- R. Platel, L. Chaveriat, S. Le Guenic, R. Pipeleers, **M. Magnin-Robert**, B. Randoux, P. Trapet, V. Lequart, N. Joly, P. Halama, P. Martin, M. Hofte, Ph Reignault, A. Siah. **2021**. Importance of the C12 carbon chain in the biological activity of rhamnolipids conferring protection in wheat against *Zymoseptoria tritici*. *Molecules* 26:40.
- C. Lemaitre-Guillier, F. Fontaine, C. Roullier-Gall, M. Harir, **M. Magnin-Robert**, C. Clément, S. TrouveLOT, R.D. Gougeon, P. Schmitt-Kopplin, M. Adrian. **2020**. Cultivar- and wood area-dependent metabolomic fingerprints of grapevine infected of *Botryosphaeria dieback*. *Phytopathology* 110 (11), 1821-1837.
- L. Somai-Jemmali, A. Siah, B. Randoux, **M. Magnin-Robert**, P. Halama, W. Hamada, Ph. Reignault. **2020**. Brown alga *Ascophyllum nodosum* extract-based product, Dalgin Active®, triggers defense mechanisms and confers protection in both bread and durum wheat against *Zymoseptoria tritici*. *J. Appl. Phyco.*, 32, 3387-3399.
- S. Mejri, **M. Magnin-Robert**, B. Randoux, A. Ghinet, P. Halama, A. Siah, Ph. Reignault. **2020**. Saccharin provides protection and activates defense mechanisms in wheat against the hemibiotrophic pathogen *Zymoseptoria tritici*. *Plant Dis.* 105 :
- H. Megloulou, J. Fontaine, A. Verdin, **M. Magnin-Robert**, B. Tisserant, M. Hijri, A. Lounès-Hadj Sahraoui. **2019**. Aided Phytoremediation to Clean Up Dioxins/Furans-Aged Contaminated Soil: correlation between microbial communities and pollutant dissipation. *Microorganisms*, online.
- F. Changey, H. Megloulou, J. Fontaine, **M. Magnin-Robert M.**, B. Tisserant, T. Lerch, A. Lounès-Hadj Sahraoui. **2019**. Initial microbial status modulates mycorrhizal inoculation effect on rhizosphere microbial communities. *Mycorrhiza*, **29**, 475-487.
- S. Mejri, A. Siah, C.-M. Abuhaie, P. Halama, **M Magnin-Robert**, B. Randoux, Ph. Reignault, B. Rigo, A. Ghinet. **2018**. New salicylic acid and pyroglutamic acid conjugated derivatives confer protection to bread wheat against *Zymoseptoria tritici*. *J. Sci. Food Agric.*, **99**, 1780-1786.
- H. Megloulou, A. Lounès-Hadj Sarhaoui, **M. Magnin-Robert**, B. Tisserant, M. Hijri, J. Fontaine. **2018**. Arbuscular mycorrhizal inoculum sources influence bacterial, archaeal, and fungal communities' structures of historically dioxin/furan-contaminated soil but not the pollutant dissipation rate. *Mycorrhiza*, **28**, 635-650.
- L. Somai-Jemmali, A. Siah, P. Halama, K. Harbaoui, S. Fargaoui, B. Randoux, **M. Magnin-Robert**, P. Reignault, W. Hamada. **2017**. Correlation of fungal penetration, CWDE activities and defense-related genes with resistance of durum wheat cultivars to *Zymoseptoria tritici*. *Physiol. Mol. Plant Pathol.*, 100 : 117-125.
- L. Somai-Jemmali, B. Randoux, A. Siah, **M. Magnin-Robert**, P. Halama, Ph. Reignault, W. Hamada. **2017**. Similar infection process and induced defense patterns during compatible interactions between *Zymoseptoria tritici* and both bread and durum wheat species. *Eur. J. Plant Pathol.* 147 : 787-801.
- M. Magnin-Robert**, M. Adrian , S. Trouvelot, A. Spagnolo, L. Jacquens, P. Letousey, F. Rabenoelina, M. Harir, C. Roullier-Gall, C. Clément, P. Schmitt-Kopplin, A. Vallat, E. Abou-Mansour, F. Fontaine. **2017**. Alterations in grapevine leaf metabolism occur prior to esca apoplexy appearance. *Mol. Plant-Microbe Interact.* 3 : 946-959.
- S. Mejri, A. Siah, F. Coutte, **M. Magnin-Robert**, B. Randoux, B. Tisserant, F. Krier, P. Jacques, Ph. Reignault, P. Halama. **2017**. Biocontrol of the wheat pathogen *Zymoseptoria tritici* using cyclic lipopeptides from *Bacillus subtilis*. *Environ. Sci. Pollut.* 25 : 29822-29833.
- G. Mustafa, N.G. Khong, B. Tisserant, B. Randoux, J. Fontaine, **M. Magnin-Robert**, Ph. Reignault, A. Lounès-Hadj Sahraoui. **2017**. Defense mechanisms associated with mycorrhiza-induced resistance in wheat against 1 powdery mildew. *Funct. Plant Biol.* 44 : 443-454.
- G. Mustafa, B. Randoux, B. Tisserant, J. Fontaine, **M. Magnin-Robert**, A. Lounès-Hadj Sahraoui, Ph. Reignault. **2016**. Phosphorus supply, arbuscular mycorrhizal fungal species, and plant genotype impact on the protective efficacy of mycorrhizal inoculation against the wheat powdery mildew. *Mycorrhiza* 26 : 685-694.
- M. Magnin-Robert**, A. Spagnolo, A. Boulanger, C. Joyeux, C. Clément, E. Abou-Mansour, F. Fontaine. **2016**. Changes in plant metabolism and accumulation of fungal metabolites in response to esca proper and apoplexy expression in the whole grapevine. *Phytopathology* 106: 541-553.

- P. Reis P, **M. Magnin-Robert**, T. Nascimento, A. Spagnolo, E. Abou-Mansour, C. Fioretti, C. Clément, C. Rego, F. Fontaine. **2016**. Reproducing Botryosphaeria dieback foliar symptoms in a simple model system. *Plant Dis.* 100: 1071-1079.
- M. Magnin-Robert**, D. Le Bourse, J. Markham, S. Dorey, C. Clément, F. Baillieux, S. Dhondt-Cordelier. **2015**. Modifications of sphingolipid content affect tolerance to hemibiotrophic and necrotrophic pathogens by modulating plant defense responses in Arabidopsis. *Plant Physiol.* 169: 2255-2274.
- A. Aziz, B. Verhagen, **M. Magnin-Robert**, M. Couderchet, C. Clément, P. Jeandet, P. Trotel-Aziz. **2015**. Effectiveness of beneficial bacteria to promote systemic resistance of grapevine to gray mold as related to phytoalexin production in vineyards. *Plant Soil* 40 : 141-153.
- E. Abou-Mansour, J.-L. Débieux, M. Ramirez-Suero, M. Bénard-Gellon, **M. Magnin-Robert**, A. Spagnolo, J. Chong, F. Sibylle, C. Bertsch, F. L'Haridon, M. Serrano, F. Fontaine, P. Larignon P. **2015** Phytotoxic metabolites from *Neofusicoccum parvum*, a pathogen of Botryosphaeria dieback of grapevine. *Phytochemistry* 115: 207-215.
- M. Magnin-Robert**, A. Spagnolo, T.D. Alayi, C. Cilindre, L. Mercier, C. Schaeffer-Reiss, A. Van Dorsselaer, C. Clément, F. Fontaine. **2014**. Proteomic insights into changes in grapevine wood in response to esca proper and apoplexy. *Phytopathol. Medit.* 53: 168-187.
- A. Spagnolo, **M. Magnin-Robert**, T.D. Alayi, C. Cilindre, L. Mercier, C. Schaeffer-Reiss, A. Van Dorsselaer, C. Clément C, P. Larignon, M. Ramirez-Suero, J. Chong, C. Bertsch, E. Abou-Mansour, F. Fontaine. **2014**. Differential responses of three grapevine cultivars to Botryosphaeria dieback. *Phytopathology* 104: 1021-1035.
- C. Bertsch, M. Ramirez-Suero, **M. Magnin-Robert**, P. Larignon, J. Chong, E. Abou-Mansour, A. Spagnolo, C. Clément, F. Fontaine. 2013. Review: Grapevine trunk diseases: complex and still poorly understood. *Plant Pathol.* 62: 243-265.
- M. Magnin-Robert**, D. Quantinet, M. Couderchet, A. Aziz, P. Trotel-Aziz. **2013** Differential induction of grapevine resistance and defense reactions against *Botrytis cinerea* by bacterial mixtures in vineyards. *Biocontrol* 58: 117-131.
- A. Spagnolo, **M. Magnin-Robert**, T.D. Alayi, C. Cilindre, L. Mercier, C. Schaeffer-Reiss, A. Van Dorsselaer, C. Clément C and Fontaine F. **2012**. Physiological changes in green stems of *Vitis vinifera* L. cv. Chardonnay in response to Esca proper and apoplexy revealed by proteomic and transcriptomic analyses. *J. Proteome Res.* 11: 461-475.
- M. Magnin-Robert**, P. Letousey, A. Spagnolo, F. Rabenoelina, L. Jacquens, L. Mercier, C. Clément, F. Fontaine. 2011. Leaf stripe form of esca induces alteration of photosynthesis and defence reactions in presymptomatic leaves. *Func. Plant Biol.* 38: 856-866.
- M. Magnin-Robert**, P. Trotel-Aziz, D. Quantinet, S. Biagiatti, A. Aziz. 2007. Biological control of Botrytis cinerea by selected grapevine-associated bacteria and stimulation of chitinase and β -1,3 glucanase activities under field conditions. *Eur. J Plant Pathol.* 118: 43-57.

► TEACHING ACTIVITIES, ADMINISTRATIVE FUNCTIONS, RESPONSIBILITIES EXERCISED

Teaching activities

- Plant biology : Licence in biology (1st, 2nd et 3rd year)
 Plant Histology-Cytology : Licence in biology (1st year),
 Biological Molecules and Methodologies : Licence in biology (1st year)
 Cellular biology : Licence in biology (1st et 2nd year), DEUST (1st year)

Administrative functions and responsibilities

- Elected member of the Research Committee, participates in academic councils restricted to teacher-researchers and parity councils (since oct. 2020 – to date)
 Elected member in the commission of the Social Assistance Service - SCAS (since oct. 2020 – to date)
 Vice-president of the disciplinary commission for students (since oct. 2020 – to date)
 Elected member of the Research Unit Council UCEIV (since sept. 2020 – to date)
 President of the Jury L1 Biology, permanent member of the Jury L2 Biology (since sept. 2015 - to date)
 Practical work coordinator Biology Licence (L1, L2 and L3) – Pôle Calais (since sept. 2015 - to date)
 Participation in the "Réussite Licence" working group - Development of the "positioning tests" system for the Life Sciences program at ULCO – Pôle Calais (since sept. 2014 – to date)
 Responsible for the student tutoring of 1st year Science and Technology students (STS) in ULCO – Pôle Calais (sept. 2016 – june 2020)