Justine COLOU **Ph.D. in Microbiology**

31 years old

+33 6 69 59 50 81
justine.colou@univ-angers.fr
3 rue de la Haussette, 49080 Bouchemaine

PROFESSIONAL BACKGROUND

Contract Teacher/Researcher *2023-2024 - Université d'Angers, France*

Teaching microbiology for Bachelor and Master students (172h/year).
Two publications in preparation about the roles of KMT6 and GCN5 in *Alternaria brassicicola* pathogenicity.
References: Thomas Guillemette (thomas.guillemette@univ-angers.fr) and Pascal Poupard (pascal.poupard@univ-angers.fr)

Postdoc *2021-2023 - SLU/UPSC, Umeå, Sweden*

Investigating the N source role on soybeans in their interaction with beneficial and pathogenic microbes.
Two publications in preparation about a method and the role of different nitrogen sources on the soybean/rhizobia interaction.
Grant obtained: KSLA 150 000 Kr – "Relationship between the soybean fertilization and its Microbes"
References: Regina Gratz (regina.gratz@slu.se) and Torgny Näsholm (torgny.nasholm@slu.se)

Contract Teacher/Researcher *2019-2021 - Université d'Angers, France*

Teaching microbiology for Bachelor students in their first, second- and third year during lectures and in practical work (153h/year).
References: Thomas Guillemette (thomas.guillemette@univ-angers.fr) and Pascal Poupard (pascal.poupard@univ-angers.fr)

Ph. D in Microbiology *2016-2020 - Université d'Angers, France*

Subject: Role of MCC/eisosome domains and chromatin modifications in the pathogenicity of *Alternaria brassicicola*
Competence: Fungal GMO synthesis through protoplast formation; mutant phenotyping *in vitro* (nephelometry, …) and *in vivo* (leaf and seed transmission); transcriptomic analysis of the different mutants; microscopy (confocal, TEM, SEM, macroscope, …).
Instructor for microbiology course during my last year of Ph.D.

Master's Internship *2015 - 5 months - Université de Pau, France*
Objective: Create a tool to detect the methylmercury-producing bacteria in a sample.
Competence: Designing primers specific to different bacterial groups to amplify the gene responsible for methylmercury production and cultivation of anaerobic bacteria to test those primers.

Master's Internship *2014 - 2 months - Université de Pau, France*
Objective: Estimation of the microplastic contamination of the bay of Brest (France).
Competence: Water sampling and sample processing.

INVOLVEMENT IN THE INSTITUTE/TEAM

PhD students' representative in the SFR QuaSaV (2017-2018)
PhD students' representative in the doctoral committee of the "école doctorale EGAAL"
Member of the PhD students' association "Greenyd"

Internship student supervision: two 2nd year Master students (6 months), two 1st year Master students (4 months and 3 months), three 3rd year Bachelor students (2 months).

EDUCATIONAL BACKGROUND

Ph.D. in Microbiology *2016-2020 - Université d'Angers, France*
Under the supervision of Pr. T. Guillemette, Pr. P. Simoneau and Dr. C. Campion

Master's Degree *2013-2015 - Université de Pau, France*
Bioprotection and Environmental Microbiology
With Third Class Honours

Bachelor's Degree *2010-2013 - Université d'Angers, France*
Physiology, Cell and Molecular Biology
With Third Class Honours

PUBLICATIONS

Articles:

1. Tünnermann L, **Colou J**, Näsholm T, Gratz R. To have or not to have: Expression of amino acid transporters during pathogen infection. Plant Molecular Biology. 2022 Jul;109(4-5):413-25.
2. Bessadat N, Hamon B, Bataillé-Simoneau N, **Colou J**, Mabrouk K, Simoneau P. Characterization of *Stemphylium* spp. associated with tomato foliar diseases in Algeria. Phytopathologia Mediterranea. 2022 Mar 25;61(1):39-53.
3. Quang N'Guyen G, Raulo R, Porquier A, Iacomi B, Pelletier S, Renou J-P, Bataillé-Simoneau N, Campion C, Hamon B, Kwasiborski A, **Colou J**, Benamar A, Hudhomme P, Macherel D, Simoneau P and Guillemette T. Responses of the Necrotrophic Fungus *Alternaria brassisicola* to the Indolic Phytoalexin Brassinin. Front. Plant Sci., 14 January 2021. https://doi.org/10.3389/fpls.2020.611643
4. **Colou J**, N'Guyen GQ, Dubreu O, Fontaine K, Kwasiborski A, Bastide F, Manero F, Hamon B, Aligon S, Simoneau P, Guillemette T. Role of membrane compartment occupied by Can1 (MCC) and eisosome subdomains in plant pathogenicity of the necrotrophic fungus Alternaria brassicicola. BMC Microbiol. 2019 Dec 16;19(1):295. doi: 10.1186/s12866-019-1667-4. PMID: 31842747; PMCID: PMC6916069.
5. Belmas E, Briand M, Anthony Kwasiborski A, **Colou J**, N'Guyen G, Iacomi B, Grappin P, Campion C, Simoneau P, Barret M, Guillemette T. Genome sequence of the necrotrophic plant pathogen *Alternaria brassicicola* Abra43. Genome Announcements, 2018, 6(6):e01559-17

Soon to be published:

Colou J, Tünnermann L, Ratushna M, Guillemette T, Campion C, Löfstedt T, Näsholm T, Gratz R. "Nephelometry: A Versatile Tool to Assess Microbial Growth and Quantifying Yeast-based Molecular Assays"

Colou J, Bisjak T, Nasholm T, Gratz R. "Organic and inorganic Nitrogen fertilizer: comparison in soybeans"

Colou J, N'Guyen G, Kwasiborski A, Bastide F, Hamon B, Simoneau P, Guillemette T. "Role of the histone acetyl transferase AbGCN5 in the necrotrophic fungus Alternaria brassicicola."

Colou J, N'Guyen G, Kwasiborski A, Briand M, Verdier J, Bastide F, Aligon S, Hamon B, Simoneau P, Guillemette T. "Role of the histone methyl transferase KMT6 in plant pathogenicity of the necrotrophic fungus Alternaria brassicicola."

Oral communications:

1. Role of membrane MCC/eisosome domains in fungal pathogenicity (30th Fungal Genetics Conference, 2019)
2. Implication des mécanismes de remodelage de la chromatine dans le processus infectieux d'*Alternaria brassicicola* (colloque Graines 2019)
3. Role of membrane MCC/eisosome domains in fungal pathogenicity (journées EGAAL 2019)
4. Implication des mécanismes de remodelage de la chromatine dans le processus infectieux d'*Alternaria brassicicola* (colloque EpiAgro 2019).
5. La Formidable Histoire de la Méthylation de l'ADN chez *A. brassicicola* (workshop du colloque REacTION 2019).

Posters:

1. Role of eisosomes in pathogenicity of the necrotrophic fungus *Alternaria brassicicola* (30th Fungal Genetics Conference, 2019)
2. Implications de complexes protéiques membranaires, les eisosomes, lors du processus infectieux chez *Alternaria brassicicola* (Journées Jean Chevaugeon, 2018)
3. Chromatin-based control of pathogenicity in a necrotrophic fungus (EpiAgro 2017).
4. Role of Kmt6, a histone methyl transferase, in plant pathogenicity of the necrotrophic fungus *Alternaria brassicicola* (ECFG15, 2020)