

INFORMATIONS COMPLEMENTAIRES SUR LE PROJET DE THESE ADDITIONAL INFORMATION ON THE THESIS PROJECT

« Écologie, Géosciences, Agronomie, ALimentation »

INFORMATIONS GÉNÉRALES/GENERAL INFORMATION

Intitulé de la thèse : Étude de l'écologie microbienne et des risques sanitaires dans des aliments fermentés thaïlandais Thesis title : Assessing Microbial Ecology and Food Safety Risks in Thai Fermented Foods
Acronyme/Acronym : MICRO-SAFE
Mots-clés : Fermentation traditionnelle, Ecologie Microbienne, Champignons, Sécurité Sanitaire, Bioactivités Keywords : Traditional fermentation, Microbial Ecology, Fungi, Food Safety, Bioactivities
Unité d'accueil/Research Unit : Laboratoire Universitaire de Biodiversité et Ecologie Microbienne LUBEM UR 3882 / USC INRAE 1504 Equipe d'accueil/Research Team : Microbial Ecology University Laboratory LUBEM UR 3882 / USC INRAE 1504
Nom, prénom du directeur de thèse (avec HDR) / Name of the thesis director : COTON Monika Adresse mail/E-mail address : monika.coton@univ-brest.fr
Contact(s) / Mailing address :

DESCRIPTION COMPLEMENTAIRE DU PROJET DE THÈSE/ FURTHER DESCRIPTION OF THESIS PROJECT

Le module AMETHIS 'Projet de Recherche Doctoral' propose les rubriques suivantes sur votre projet : 'Résumé', 'Enjeux du projet', 'Pré-requis' et 'Moyens disponibles'. Si vous le jugez utile, complétez ici la description du projet (e.g. principales étapes de la thèse, réseau de collaborations envisagées, échanges internationaux...) :

If you consider it useful, complete the project description here (e.g. main steps of the thesis, network of planned collaborations, international exchanges...):

Contexte socio-économique et scientifique

Ecology and food safety of relevant Thai fermented foods in link with current food transitions and innovations

Food fermentations have been used for centuries, representing a highly diversified category of food products shaped by the **metabolically active microbial communities that intervene during fermentation and impact overall product quality**. While many types of fermented food have been well studied, such as wine, cheeses and dry cured meats, others remain largely under-explored. These include locally produced, traditional or ethnic foods like Loog Pang or Koji in Thailand. For such products, **microbial diversity and succession**, particularly the fungal community which is a key element for raw material transformation, is rarely mapped as well as the functional roles of the key microbial drivers. A deeper understanding of **microbial diversity** and its **functional interactions** can directly help enhance **product quality, safety and sustainability**. In time, improved microbial solutions can then be designed for better fermentation control, especially in the current context in which fermentations can be impacted by multiple factors like climate change and food transitions, with shifts in raw material accessibility or quality and evolving temperature constraints. Beyond the quality aspects, **safety issues** can also exist such as mycotoxinogenic species which can be present in these matrices.

This project will be **included in the international MYCOBIOMICS 2.0 project** (13 partner institutions from 11 countries) and the PhD candidate will be required to go for **at least one research mobility period to the BIOTEC research institute in Thailand**.

Hypotheses and scientific questions

In the current context of food transitions and innovations, a better understanding of the food microbiota and their functional properties, especially in plant-based products, is relevant. This is particularly true for the fermentation of locally produced ethnic products like Loog pang (produced in Thailand), for which food safety risks such as mycotoxins may also exist.

In this framework, **culture-dependent and -independent approaches (-omics techniques)** will be used to decipher microbial diversity and dynamics during **loog pang fermentations**, with a special **focus on fungal diversity**. Additional techniques will be implemented to determine the functional roles of the main fungal drivers for fermentation including gas chromatography-mass spectrometry (**GC-MS**) for volatile compounds and liquid chromatography-mass spectrometry (**LC-MS**) for bioactive molecules, including potential mycotoxins. In parallel, co-occurrence networks will also be used to better understand microbial interactions and functions, to guide the design of a tailor-made consortia for improved fermentation or product innovation.

Principales étapes de la thèse et démarche

This project will be divided into the following tasks :

Task 1. Collecting locally fermented Loog Pang products on markets in Thailand during a research mobility with our International partner at BIOTEC in Thailand. One fermentation will also be monitored (during a second mobility) at different stages to study the microbial communities by combining classical cultivation methods with genomic tools (metabarcoding), to not only provide an ecological view of the fungal and bacterial communities, but also to better understand the potential food safety issues. Overall, this work will provide a better understanding of microbial community diversity and dynamics in this food product and determine the main factors that influence the process, if available (i.e. storage conditions, temperature changes, pH, humidity or water activity...)

This task will also involve isolating and preserving fungi from the collected samples as well as sampling the product for downstream analyses (Task 2 or 3).

Task 2. Different Loog Pang samples will be first characterized using various techniques (LC, LC-MS, GC-MS) to investigate the biochemical changes (sugars, organic acids, amino-acids, fatty acids, volatile compounds) occurring during fermentation. LC-MS will also be used to identify potent bioactive compounds (including mycotoxins). , Then, the functional roles of the main fungal drivers for fermentation will be determined. This work will also include

aspects on fungal development and secondary metabolite production, especially mycotoxins, to take into account food safety risks in this fermented product.

Task 3. Based on the generated data, co-occurrence networks will be used to pinpoint the main microbial interactions and functions, and to guide the design of a tailor-made consortia for improved fermentation and potential product innovation.

Task 4. Based on project progress, pilot scale fermentations (most likely at BIOTEC in Thailand) will be carried out using solid state fermentations with the newly designed consortium to improve overall product quality and safety. If relevant, trials will also be performed to test this consortium for food innovation.

The PhD candidate requirements:

- Master's Degree or equivalent Degree **in microbiology, molecular biology**, and have experience in data analyses related to their specialty (culture-dependent and –independent approaches, PCR, metagenetics, statistics...)
- Good lab experience with the ability to work autonomously and learn new techniques
- **Well-organized, rigorous and a good team player**, the candidate will be required to work with a team and do regular progress reports
- Be capable of adapting and simplifying a scientific discussion according to the context
- Good communication and written skills (protocols, reports, synthesis...), good experience with Office Pack and statistical analyses
- **Fluency in English** (both spoken and written), **interest in working abroad as part of the PhD work will be carried out at BIOTEC in Thailand**, and be able to present their research in International conferences
- **An interest in fermentation and food biotechnology** as well as experience in biochemistry is an asset.

ENCADREMENT DE LA THÈSE¹ / THESIS SUPERVISION

Unité de recherche et équipe (Research unit and team)	
Directeur de l'unité (Research unit director name) :	Emmanuel COTON
Contact du directeur de l'unité (Unit director address) :	LUBEM UR3882 - USC INRAE 1504 Parvis Blaise Pascal Technopôle Brest-Iroise 29280 Plouzané, France
Responsable de l'équipe (Research team manager name) :	Jérôme MOUNIER
Contact du responsable de l'équipe (Team manager address) :	LUBEM UR3882 - USC INRAE 1504 Parvis Blaise Pascal Technopôle Brest-Iroise 29280 Plouzané, France

Directeur de thèse (Thesis director)	
Nom, prénom (Surname, first name) :	COTON Monika
Fonction (Position) :	Professor
Date d'obtention de l'HDR (Obtained date of the Habilitation thesis to supervise research) :	2012
Employeur (Employer) :	Université de Bretagne Occidentale
Taux d'encadrement doctoral dans le projet de thèse (Supervision rate in thesis project) :	40%
Taux d'encadrement doctoral en cours (Total rate of thesis supervision in ongoing theses) (%) :	70%
Nombre de directions/co-directions de thèse en cours (Number of current thesis supervisions) :	2

Co-directeur (le cas échéant) (Thesis co-director - if applicable)	
Nom, prénom (Surname, first name) :	MOUNIER Jérôme
Fonction (Position) :	Professor
Date d'obtention de l'HDR (Obtained date of the Habilitation thesis to supervise research) :	2012
Employeur (Employer) :	Université de Bretagne Occidentale
École doctorale de rattachement (Doctoral school affiliation) :	ED EGAAL

¹ Dans l'ED EGAAL, si 1 scientifique dans la direction de la thèse = 100% d'encadrement doctoral ; si 2 personnes impliquées dans la direction de la thèse = entre 50% et 70% d'encadrement doctoral pour l'HDR directeur ; si 3 personnes impliquées dans l'encadrement de la thèse : répartition : 40% - 30% - 30% de l'encadrement doctoral.

Taux d'encadrement doctoral dans le projet de thèse (Supervision rate in thesis project) :	30%
Taux d'encadrement doctoral en cours (Total rate of thesis supervision in ongoing theses) (%) :	30%
Nombre de directions/co-directions de thèse en cours (Number of current thesis supervisions) :	1

Co-encadrant de thèse 1 (le cas échéant) (Thesis co-supervisor 1 - if applicable)	
Nom, prénom (Surname, first name) :	COTON Emmanuel
Fonction (Position) :	Professor
Titulaire de l'HDR (Habilitation thesis to supervise research) : Si oui, date d'obtention de l'HDR (if yes, obtained date):	☒ oui ☐ non 22/12/2008
Employeur (Employer) :	Université de Bretagne Occidentale
École doctorale de rattachement (Doctoral school affiliation) :	ED EGAAL
Taux d'encadrement doctoral dans le projet de thèse (Supervision rate in thesis project) :	30%
Taux d'encadrement doctoral en cours (Total rate of thesis supervision in ongoing theses) (%) :	110%
Nombre d'encadrements de thèse en cours (Number of current thesis supervisions) :	3

Partenaire international (International partner) lors des mobilités (NOT a cotutelle)	
Nom, prénom (Surname, first name) :	PANYA Atikorn
Fonction (Position) :	Professor
Employeur (Employer) :	BIOTEC, National Center for Genetic Engineering and Biotechnology, Thailand
Supervision in thesis project :	Supervision during international mobility

Devenir des anciens doctorants du directeur/co-directeur(s)/co-encadrant(s) de thèse (depuis 5 ans) (Careers of former PhD students of the thesis director/co-director(s)/co-supervisor(s) - over the past 5 years)	
<i>Compléter les informations suivantes pour <u>chaque</u> ancien doctorant / Complete the following information for each former PhD student</i>	
Nom, prénom (Surname, first name) :	SAVARY Océane
Date début-fin de thèse (Date of PhD beginning and defence) ::	01/10/18-31/12/21

Direction de thèse (Thesis supervision) :	Directeur de thèse : Emmanuel Coton - Co-encadrants : Monika COTON - Jean-Luc Jany)
Emploi actuel, lieu (Professional status and location) :	CDI Ingénieur de recherche R&D, Lactalis, France
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	CDI
Liste des publications issues de la thèse (List of publications from the thesis) : 1. SAVARY O., COTON E., MAILLARD MB., GAUCHERON F., LE MEUR C., FRISVAD JC., THIERRY A., JANY JL, COTON M. (2023) Functional diversity of <i>Bisifusarium domesticum</i> and the newly described Nectriaceae cheese-associated species, Food Research International, DOI:10.1016/j.foodres.2023.112691 2. CROUS PW, SANDOVAL-DENIS M, COSTA MM, GROENEWALD JZ, VAN IPEREN AL, STARINK-WILLEMSE M, HERNÁNDEZ-RESTREPO M, KANDEMIR H, ULASZEWSKI B, DE BOER W, ABDEL-AZEEM AM, ABDOLLAHZADEH J, AKULOV A, BAKHSHI M, BEZERRA JDP, BHUNJUN CS, CÂMARA MPS, CHAVERRI P, VIEIRA WAS, DECOCK CA, GAYA E, GENÉ J, GUARRO J, GRAMAJE D, GRUBE M, GUPTA VK, GUARNACCIA V, HILL R, HIROOKA Y, HYDE KD, JAYAWARDENA RS, JEEWON R, JURJEVIĆ Ž, KORSTEN L, LAMPRECHT SC, LOMBARD L, MAHARACHCHIKUMBURA SSN, POLIZZI G, RAJESHKUMAR KC, SALGADO-SALAZAR C, SHANG QJ, SHIVAS RG, SUMMERBELL RC, SUN GY, SWART WJ, TAN YP, VIZZINI A, XIA JW, ZARE R, GONZÁLEZ CD, ITURRIAGA T, SAVARY O, COTON M, COTON E, JANY JL, LIU C, ZENG ZQ, ZHUANG WY, YU ZH, THINES M (2022) <i>Fusarium</i> and allied fusarioid taxa (FUSA) Fungal System Evol, 9 (1) 161-200 3. SAVARY O., COTON M., JANY J-L., COROLLER L., COTON E. (2022) Effect of abiotic factors and culture media on the growth of cheese-associated Nectriaceae species, International Journal of Food Microbiology, 364, 109509. doi.org/10.1016/j.ijfoodmicro.2021.109509. 4. SAVARY O., COTON M., FRISVAD JC., NODET P., ROPARS J., COTON E. AND JANY J-L. (2021) Mycosphere Unexpected Nectriaceae species diversity in cheese, description of <i>Bisifusarium allantoides</i> sp. nov., <i>Bisifusarium penicilloides</i> sp. nov., <i>Longinectria</i> gen. nov. <i>lagenoides</i> sp. nov. and <i>Longinectria verticilliforme</i> sp. nov. Mycosphere 12(1): 1077–1100. Doi 10.5943/mycosphere/12/1/13	
Nom, prénom (Surname, first name) :	CARDIN Marco
Date début-fin de thèse (Date of PhD beginning and defence) ::	01/10/2019-31/12/23
Direction de thèse (Thesis supervision) :	Directeurs de thèse : Barbara Cardazzo - Emmanuel Coton 50%, co-encadrants Jérôme MOUNIER - Monika COTON
Emploi actuel, lieu (Professional status and location) :	Post-doc, University of Copenhagen, Denmark
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	Post-doc
Liste des publications issues de la thèse (List of publications from the thesis) : 1. CARDIN M, CARDAZZO B, COTON M, CARRARO L, LUCCHINI R, NOVELLI E, COTON E, MOUNIER J (2024) Ecological diversity and associated volatilome of typical mountain Caciotta cheese from Italy. International Journal of Food Microbiology 411 (2024) 110523	

2. CARDIN M, MOUNIER J, COTON E, CARDAZZO B, PERINI M, BERTOLDI D, PIANEZZE S, SEGATO S, DI CAMILLO B, CAPPELLATO M, COTON M, CARRARO L, CURRÒ S, LUCCHINI R, MOHAMMADPOUR H, NOVELLI E. (2024). Discriminative power of DNA-based, volatilome, near infrared spectroscopy, elements and stable isotopes methods for the origin authentication of typical Italian mountain cheese using sPLS-DA modeling. *Food Research International*, 178: 113975.
3. CARDIN M, CARDAZZO B, MOUNIER J, NOVELLI E, COTON M, COTON E (2022) Authenticity and Typicity of Traditional Cheeses: A Review on Geographical Origin Authentication Methods. *Foods*;11(21):3379

Nom, prénom (Surname, first name) :	CREQUER Ewen
Date début-fin de thèse (Date of PhD beginning and defence) ::	01/10/2020 – 30/09/2023
Direction de thèse (Thesis supervision) :	Directeurs de thèse : Emmanuel Coton - Antoine Branca, co-encadrants : Monika COTON – Jean-Luc Jany
Emploi actuel, lieu (Professional status and location) :	Post-doc LUBEM, Plouzané, France
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	Post-doc CDD

- Liste des publications issues de la thèse** (List of publications from the thesis) :
1. CREQUER E, COTON E, CUEFF G, CRISTIANSEN J V, FRISVAD J C, RODRIGUEZ DE LA VEGA R, GIRAUD T, JANY J-L, **COTON M**. (2024). Different metabolite profiles across *Penicillium roqueforti* populations associated with ecological niche specialisation and domestication *IMA Fungus* 15, 38 <https://doi.org/10.1186/s43008-024-00167-4>
 2. CARON, T., & CREQUER, E., LE PIVER, M., LE PRIEUR, S., BRUNEL, S., SNIRC, A., VERNADET, J-P., CUEFF, G., ROUEYRE, D., PLACE, M., CHASSARD, C., SIMON, A., RODRIGUEZ DE LA VEGA, R., **COTON, M.**, COTON, E., FOULONGNE-ORIOU, M., BRANCA, A. & GIRAUD, T. Generation of diversity in the blue cheese mold *Penicillium roqueforti* and identification of pleiotropic QTL for key cheese-making phenotypes. (preprint 2024 en 2ème révision)
 3. CREQUER, E., ROPARS, J., JANY, J.-L., CARON, T., **COTON, M.**, SNIRC, A., VERNADET, J.-P., BRANCA, A., GIRAUD, T. & COTON, E. (2023) A new cheese population in *Penicillium roqueforti* and adaptation of the five populations to their ecological niche. *Evolutionary Applications*, 16, 1438–1457.

Nom, prénom (Surname, first name) :	DESTANQUE Adrien
Date début-fin de thèse (Date of PhD beginning and defence) ::	15/03/2021 – 14/03/2024
Direction de thèse (Thesis supervision) :	Directrice de thèse : Monika COTON - Co-encadrants Adeline PICOT - Flora PENSEC
Emploi actuel, lieu (Professional status and location) :	Enseignant-chercheur contractuel au CNAM, Paris
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	CDD
Liste des publications issues de la thèse (List of publications from the thesis) :	

1. DESTANQUE, A., PENSEC, F., PICOT, A., THIERRY, A., MAILLARD, M-B., COMMEREUC, A., POIRIER, E., COROLLER, L., COTON, E., HERVE, M., **COTON, M.** (2026) Contribution of grape-associated fungal species to the FMA defect on grapes and in musts LWT 241: 118945. <https://doi.org/10.1016/j.lwt.2025.118945>
2. DESTANQUE, A., PICOT, A., PENSEC, F., PAWTOWSKI, A., ROLLAND, N., TREGUER-FERNANDEZ, S., DEBAETS, S., GUERIN, L., MERCIER, L., COTON, E., HERVE, M., **COTON, M.** (2024). Grape berry mycobiota and its contribution to fresh mushroom aroma off-odour in wine. *OENO One*, 58(4). <https://doi.org/10.20870/oenone.2024.58.3.8105>
3. HERVÉ, M., DELCROS, L., DESTANQUE, A., COLLAS, S., GUÉRIN, L., MERCIER, L., PENSEC, P., PICOT, A., BLONDIN, B., COTON, E., **COTON, M.**, ROLAND, A.: New Markers for Monitoring “Fresh Mushroom Aroma” in Wine: A Dual Approach Using Microbiological and Chemical Tools from the Vineyard to Winery - A synthesis of recent research advances. 2024 OIV proceedings article

Nom, prénom (Surname, first name) :		COULET France
Date début-fin de thèse (Date of PhD beginning and defence) ::		01/10/2022 – 08/12/2025
Direction de thèse (Thesis supervision) :		Co-directrice de thèse : Monika COTON - Nolwenn HYMERY
Emploi actuel, lieu (Professional status and location) :		Recherche de post-doc
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :		Recherche de post-doc
Liste des publications issues de la thèse (List of publications from the thesis) :		
1. COULET F, COTON M, REFET-MOLLOF E, COTON E, GERVAIS T, HYMERY N. (2026). ENN A1 and B1 <i>in vitro</i> toxicological effects on 2D and 3D Organ-on-Chip HepaRG liver cells. <i>Toxins</i> , 18(2), 107. https://doi.org/10.3390/toxins18020107		
2. COULET, F., HYMERY, N., COTON, E., COTON, M. (2025) Enniatin Mycotoxins in Food: A Systematic Review of Global Occurrence, Biosynthesis, and Toxicological Impacts on <i>In Vitro</i> Human Cell Models. <i>Comprehensive reviews in Food Science and Food Safety</i> , 24(5°, e70270. https://doi.org/10.1111/1541-4337.70270		
3. COULET F, COTON M, IPERI C, BELINGER PODEVIN M, COTON E, HYMERY N. (2024). Cytotoxic Effects of Major and Emerging Mycotoxins on HepaRG Cells and Transcriptomic Response after Exposure of Spheroids to Enniatins B and B1. <i>Toxins</i> , 16(1), 54.		

Nom, prénom (Surname, first name) :		BALLAN Damien
Date début-fin de thèse (Date of PhD beginning and defence) ::		01/10/2021-14/11/2025
Direction de thèse (Thesis supervision) :		Directeur de thèse : Jérôme MOUNIER - Co-encadrante: Adeline PICOT
Emploi actuel, lieu (Professional status and location) :		En recherche d'emploi depuis Septembre 2026

Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	
Liste des publications issues de la thèse (List of publications from the thesis) : Marchal, C., Ballan, D., Azib, S., Innocent, M., Urien, B., Tamaro, A., Gall-Ely, M.L., Coton, E., Picot, A., Mounier, J., Coroller, L., Gabriel, P, 2026. Participatory and multi-disciplinary science dataset and surveys for the assessment of the microbiological and behavioural factors influencing fresh fruits and vegetables' waste at home. Data in Brief, 65, art. no. 112434. https://doi.org/10.1016/j.dib.2025.112434 Ballan, D., Mounier, J., Amamana, D., Coroller, L., Coton, E., Picot, A. Keep it cool and clean: Impact of home storage practices on fresh fruit and vegetable spoilage and efficacy of chemical versus green disinfectants. LWT, 236, art. no. 118696. https://doi.org/10.1016/j.lwt.2025.118696 Ballan, D., Picot, A., Rolland, N., Bovo, C., Prévost, C., Coton, E., Mounier, J., 2025. Diversity of spoilage microorganisms associated with fresh fruits and vegetables in French households International Journal of Food Microbiology, 437, art. no. 111204. https://doi.org/10.1016/j.ijfoodmicro.2025.111204 Rolland, N., Girard, V., Monnin, V., Arend, S., Perrin, G., Ballan, D., Beau, R., Collin, V., D'Arbaumont, M., Weill, A., Déniel, F., Tréguer, S., Pawtowski, A., Jany, J.-L., Mounier, J, 2024. Identification of Food Spoilage Fungi Using MALDI-TOF MS: Spectral Database Development and Application to Species Complex. (2024) Journal of Fungi, 10 (7), art. no. 456. https://doi.org/10.3390/jof10070456	

Nom, prénom (Surname, first name) :	ROLLAND Nolwenn
Date début-fin de thèse (Date of PhD beginning and defence) ::	1/12/2021-17/10/2024 (extension de thèse suite congé maternité)
Direction de thèse (Thesis supervision) :	Directeur de thèse : Jérôme MOUNIER - Co-encadrant: Jean-Luc JANY
Emploi actuel, lieu (Professional status and location) :	Responsable de laboratoire à l'Ecole des Hautes Etudes en Santé Publique
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	CDI
Liste des publications issues de la thèse (List of publications from the thesis) : Rolland, N., Mounier, J., Cadoret, M., Girard, V., Perrin, G., Treguer, S., Cloarec, O., Van Long, N.N., Fiabane, L., Deniel, F., Vasseur, V., Jany, J.-L. 2026. Diversity and source-tracking of spoilage molds in bakery products using MALDI-TOF MS and molecular approaches. International Journal of Food Microbiology, p.111924. https://doi.org/10.1016/j.ijfoodmicro.2026.111924	

Rolland, N., Girard, V., Monnin, V., Arend, S., Perrin, G., Ballan, D., Beau, R., Collin, V., D'Arbaumont, M., Weill, A., Déniel, F., Tréguer, S., Pawtowski, A., Jany, J.-L., Mounier, J., 2024. Identification of Food Spoilage Fungi Using MALDI-TOF MS: Spectral Database Development and Application to Species Complex. (2024) Journal of Fungi, 10 (7), art. no. 456. <https://doi.org/10.3390/jof10070456>

Ballan, D., Picot, A., Rolland, N., Bovo, C., Prévost, C., Coton, E., Mounier, J., 2025. Diversity of spoilage microorganisms associated with fresh fruits and vegetables in French households International Journal of Food Microbiology, 437, art. no. 111204. <https://doi.org/10.1016/j.ijfoodmicro.2025.111204>

Girard, V., Monnin, V., Rolland, N., Mounier, J., Jany, J.-L., 2023. Identification of Mold Species and Species Complex from the Food Environment Using MALDI-TOF MS (2023) Microbiological Identification Using MALDI-TOF and Tandem Mass Spectrometry: Industrial and Environmental Applications, pp. 497 - 513. <https://doi.org/10.1002/9781119814085.ch20>

Nom, prénom (Surname, first name) :	BOULET Charlène
Date début-fin de thèse (Date of PhD beginning and defence) ::	01/12/2022-29/04/2026
Direction de thèse (Thesis supervision) :	Directeur de thèse :Jérôme MOUNIER - Co-directeur : Emmanuel COTON
Emploi actuel, lieu (Professional status and location) :	En recherche d'emploi
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	
Nom, prénom (Surname, first name) :	CHOTARD Mélanie
Date début-fin de thèse (Date of PhD beginning and defence) ::	01/11/2018-09/06/2022 (extension bourse de thèse suite COVID-19)
Direction de thèse (Thesis supervision) :	Directeur de thèse :Jérôme MOUNIER - Co-encadrante : Marie-Elisabeth LUCCHESI
Emploi actuel, lieu (Professional status and location) :	Inconnu
Contrat (post-doc, CDD, CDI) (Contract profile (post-doc, fixed-term, permanent)) :	
Liste des publications issues de la thèse (List of publications from the thesis) :	
Chotard M., Lucchesi M.E., Hamouche L., Tréguer S., Lelchat F., Le Floch S., Mounier J., 2023. Fungal diversity and surfactant-producing fungi in oil contaminated environments. Journal of Applied Microbiology 134, Ixac070. https://doi.org/10.1093/jambio/Ixac070	
Chotard, M., Mounier, J., Meyé, R., Padel, C., Claude, B., Nehmé, R., Da Silva, D., Floch, S.L., Lucchesi, M.-E., 2022. Biosurfactant-Producing Mucor Strains: Selection, Screening,	

and Chemical Characterization. Applied Microbiology 2, 248–259.
<https://doi.org/10.3390/applmicrobiol2010018>

FINANCEMENT DE LA THÈSE/ THESIS FUNDING

Origine(s) du financement de la thèse (Thesis funding sources) : ½ CDE et fonds propres du laboratoire

Salaire brut mensuel (Gross monthly salary) : 2300€

Date du début/durée du financement (Start date/duration of thesis funding) : 1/12/26 / 3 ans

Date : 05/10/26

Nom, signature du directeur d'unité : COTON Emmanuel



Nom, signature du directeur de thèse : COTON Monika

Nom, signature du co-directeur de thèse : MOUNIER Jérôme