Salomé SAUVAGE

PhD in Chemistry – Microbiology and Proteomics specialties looking for a post-doctoral position

salome.sauvage@orange.fr
+33 6 61 79 09 33
Appt 34, 5 Rue de Malherbe, 76100 Rouen
30 years old (March, 9th1994)

SKILLS

Scientific skills:

- **Microbiology**: bacterial culture, biofilm formation, phenotypic tests
- **Proteomics**: protein extraction, protein treatments, nanoLC-MS/MS (orbitrap) and MALDI-TOF analyses
- **Proteomic analysis softwares**: Proteome Discoverer, Progenesis, Mascot, Agilent MassHunter
- **Metabolomics**: LC-MS/MS (orbitrap) and NMR spectroscopy analyses
- **Metabolomic analysis softwares**: Compound Discoverer, MZmine, TopSpin, ChenomX
- **Molecular biology**: qRT-PCR, nucleic acid extraction, bacterial mutant creation
- Optical and confocal microscopy
- **Immunology**: research and quantification of specific elements by monoclonal antibodies and analysis by flow cytometry, serological test (ELISA)
- **Biostatistics:** R software, GraphPad Prism, FlowJo, and proficiency in the Office pack

Project management:

- Creating and optimizing a protocol
- Trial management: management of stocks, milestones, tasks
- Quality: laboratory book-keeping (ISO 9001 standard)

Transversal skills:

- Working independently, in teams, internship supervisor, supervising trainees and practical work (TP) at the university
- Scientific monitoring: bibliographic research and use of monitoring tools
- Writing, and oral and written communications (papers, posters)

WORK EXPERIENCES

November 1st 2023 – October 31th 2024: Post-doc in Metabolomics
Organic Bioorganic Chemistry: Reactivity and Analysis Laboratory, UMR 6014, Analysis and Modeling Team, Rouen Normandy University (Mont-Saint-Aignan, France)
Combining mass spectrometry and nuclear magnetic resonance for the annotation and quantification of root exudate metabolites (supervision by Dr Laure Guilhaudis, Dr Corinne Bourhis-Loutelier and Isabelle Schmitz)

September 1st 2019 – October 31th 2022: PhD in Chemistry, Microbiology and Proteomics specialties
Polymères, Biopolymères, Surfaces Laboratory, UMR 6270, Biofilm, Résistance, Cell-Surface Interactions Team, Rouen Normandy University (Mont-Saint-Aignan, France)
Contribution of proteomic analysis to understand the physiology of *Pseudomonas aeruginosa* PA14: impact of carbon source supplementation and characterization of virulence factors (supervision by Dr Julie Hardouin)

September 1st 2020 - August 31th 2021: Higher Education Instructor (64 hrs ETD)
UFR Sciences et Techniques, Rouen Normandy University (Mont-Saint-Aignan, France)
TP in 1st year of Bachelor's degree of Chemistry (redox, acid-base and pH measurement)
TP in 1st year of Master's degree of Chemistry (protein purification)
TP in 2nd year of Engineering School (protein sample preparation for MS analysis)

January 14th 2019 – June 14th 2019: 2nd year internship of Master's degree in Microbiology - Microbial Molecular Mechanisms
University Medical Center Utrecht (UMCU, Utrecht, Netherlands)
Molecular characterization of human antibodies targeting teichoic acids in the wall of *Staphylococcus aureus* (supervision by Pr Nina Van Sorge)

April 2nd 2018 – June 1st 2018: 1st year internship of Master's degree in Microbiology
Animal Health Trust (AHT, Newmarket, England)
Effect of *gacI* gene inactivation on the ability of *Streptococcus equi* to resist equine immune cells (supervision by Dr Andrew Waller)

April 19th 2017 – August 31th 2017: 1st year internship of Master's degree in Quality Management of Crop Productions
Commissariat à l'Énergie Atomique et aux Énergies Alternatives (CEA, Marcoule, France)
Implementation and optimisation of microbiological tests to validate the biocidal activity of decontamination foams (supervision by Fabienne Gas)

May 11th 2015 – August 31th 2015: 2nd year internship of University and Technology Diploma (DUT) in Biology - Agronomy Option
Institut National de la Recherche pour l'Agriculture, l'Alimentation et l'Environnement (INRAE, Site Saint Maurice, Avignon, France)
Effect of crop management on viral inoculum and the development of crop epidemics in melons (supervision by Dr Alexandra Schoeny)

SCHOOL EDUCATION

2021-2022 **PhD in Chemistry – Microbiology and Proteomics specialties** (Rouen, France)
2017-2019 **Two-years of master's degree in microbiology - Microbial Molecular Mechanisms** (Caen, France)
2016-2017 **First year of master's degree in quality management of Crop Productions** (Avignon, France)
2015-2016 **Third year of the bachelor's degree in Life and earth sciences (SVT) - Agrosciences Option** (Avignon, France)
2013-2015 **Two-years of University and Technology Diploma (DUT) in Biology - Agronomy Option** (Avignon, France)
2012-2013 **Preparatory School in Sciences (Biology, Chemistry, Physics and Natural sciences)** (Marseille, France)
2012 **A-Level in Sciences** (Aubenas, France)

LANGUAGES

French: Native language **English:** C1 level

VALORISATION

https://orcid.org/0000-0002-2277-3798

Papers :

S. Sauvage, and J. Hardouin. 2020. Exoproteomics for Better Understanding *Pseudomonas aeruginosa* Virulence. *Toxins* 12, no. 9: 571. https://doi.org/10.3390/toxins12090571

S. Sauvage, C. Gaviard, A. Tahrioui, L. Coquet, H. Le, S. Alexandre, A. Ben Abdelkrim, E. Bouffartigues, O. Lesouhaitier, S. Chevalier, T. Jouenne, and J. Hardouin. 2022. Impact of carbon source supplementations on *Pseudomonas aeruginosa* physiology. *Journal of proteome research* vol. 21,6 (2022): 1392-1407.https://pubs.acs.org/doi/10.1021/acs.jproteome.1c00936

Oral communications :

S. Sauvage, C. Gaviard, A. Tahrioui, S. Alexandre, O. Maillot, O. Lesouhaitier, T. Jouenne, S. Chevalier, E. Bouffartigues, J. Hardouin. Quels sont les impacts d'une supplémentation en sources de carbone sur la physiologie de *Pseudomonas aeruginosa* ? Journée scientifique de la Fédération de Recherche Régionale « Sécurité Sanitaire, Bien-être et Aliments Durables », 8 décembre 2020, visioconférence.

S. Sauvage, C. Gaviard, A. Tahrioui, S. Alexandre, L. Coquet, D. Vergoz, O. Lesouhaitier, P. Cosette, E. Bouffartigues, S. Chevalier, J. Hardouin. Impact of carbon sources on *Pseudomonas aeruginosa* virulence: contribution of mass spectrometry coupled to liquid chromatography. 15th International Symposium on Biochromatography and Nanoseparations, 17-20 mai 2021, visioconférence.

S. Sauvage, C. Gaviard, A. Tahrioui, S. Alexandre, L. Coquet, D. Vergoz, O. Lesouhaitier, P. Cosette, E. Bouffartigues, S. Chevalier, and J. Hardouin. Impact of carbon sources on *Pseudomonas aeruginosa* virulence: contribution of mass spectrometry coupled to liquid chromatography. Journées de l'École Doctorale Normande de Chimie, 24-25 juin 2021, visioconférence.

Posters :

B. Robin, S. Massier, **S. Sauvage**, P. Cosette, T. Jouenne, E. Dé, J. Hardouin. A role of KDAC for an uncharacterized protein in *Acinetobacter baumannii* ? 4th International conference on post-translational modifications in Bacteria, 5-6 mai 2022, Copenhague (Danemark).

S. Sauvage, C. Gaviard, L. Coquet, A. Tahrioui, H. Le, S. Alexandre, S. Chevalier, J. Hardouin. LC-MS to investigate the impact of carbon sources on the physiology of *Pseudomonas aeruginosa*. Analytics, 5-8 septembre 2022, Nantes (France).

S. Sauvage, V. Lemaitre, M. Fortier, A. Leven, M. Buron, M. Vicré, B. Pawlak, M.-L. Follet-Gueye, C. Loutelier, I. Schmitz, L. Guilhaudis. Combination of Mass Spectrometry and Nuclear Magnetic Resonance for annotation and quantification of metabolites in root exudates. Mass Spectrometry and Proteomic Analysis, 16-19 septembre 2024, Lille (France).

OTHER PROFESSIONAL INVOLVEMENT

Organizing member of the Days of the Normandy Doctoral School of Chemistry 2021 (June 24th to 25th 2021 in Rouen (France))
Doctoral and post-doctoral students' representative at the Unit Council of Polymères, Biopolymères, Surfaces Laboratory (September 1st 2020 – October 31th 2022)
Member of the GDR 2038 « Modifications Post-Traductionnelles Bactériennes » (BPTM) (September 1st 2019 – October 31th 2022)
Member of the French Mass Spectrometry Society (SFSM) (2023 - 2024)
First Aid at Work (SST) (since 2022, recycling scheduled for September 3, 2024)

REFERENCES

Dr Julie Hardouin
PhD supervisor
julie.hardouin@univ-rouen.fr
PBS Laboratory (UMR 6270)
HERACLES facility
Rouen Normandie University (France)

Pr Sylvie Chevalier
Referent at the host laboratory during the PhD
sylvie.chevalier@univ-rouen.fr
CBSA Laboratory (UR 4312)
Rouen Normandie University (France)

Dr Laure Guilhaudis
Referent for postdoctoral contact in metabolomics
laure.guilhaudis@univ-rouen.fr
COBRA Laboratory (UMR 6014)
Rouen Normandie University (France)