Gaëtan Pallot, Ph.D., Post-doctoral research fellow

30 years old
French nationality

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Curriculum Vitae

WORK EXPERIENCES

Since January 2022: **Post-doctoral research fellow "Role of Matrix Proteins in Hypoxia and Angiogenesis" - UMRS INSERM1050/CNRS7241, Collège de France, Paris, France, *supervised by Dr Stéphane Germain.***
Research project: Study of vascular permeability in a model of acute decompensated heart failure.

October 2018-December 2021: **Ph.D. applicant "Lipids, Nutrition, Cancer" Research Center (LNC) – UMR1231 Lipness Team (Prof. D. MASSON), INSERM/University of Burgundy/AgroSup, Dijon, France, *supervised by Dr Jacques grober and Dr. Thomas Gautier.***
Research project: Influence of plasma phospholipid transfer protein (PLTP) on intestinal translocation of lipopolysaccharides (LPS).
Thesis defense: December, 13th 2021.

January 2018- Jun 2018: **external auditor, food and environmental department, Eurofins.**

January 2017- Jun 2017: **Internship "UMR Procédés Alimentaires et Microbiologiques" Agrosup Dijon, Dijon France.**
Research project: Impact of exopolymeric dry matter from lactic acid bacteria on the gelling of dairy bases.

March.2015- August.2015: **Internship "Biofilms and Spatially Organised Communities" – UMR1319 (Romain Briandet), Agroparistech/INRAE in Massy, France, *supervised by Prof. F. Dubois-Brissonnet.***
Research project: Impact of the presence of exogenous fatty acids on the growth of Listeria monocytogenes at 4°C.

January 2014- February 2014: **Internship "UMR Procédés Alimentaires et Microbiologiques" Agrosup Dijon, Dijon France, *supervised by Prof. Maurice Bensoussan and Dr. Philippe Dantigny.***
Research project: Development of a fungal spore depletion method for airborne contamination compared to waterborne contamination.

EDUCATION

2020 : **Animal experimentation accreditation level 1.** École Pratique des Hautes Études, Dijon, France.

October 2018- December 2021: **Ph.D. applicant "Lipids, Nutrition, Cancer" Research Center (LNC) – UMR1231 Lipness Team (Prof. D. MASSON), INSERM/University of Burgundy/AgroSup, Dijon, France, *supervised by Dr Jacques grober and Dr. Thomas Gautier.***
Research project: Influence of plasma phospholipid transfer protein (PLTP) on intestinal translocation of lipopolysaccharides (LPS).

2015: **Master's degree in microbiology** (Ranking: 2/15). Faculty of Life Sciences, University of Burgundy, Dijon, France.

2013: **Bachelor's degree in cellular biology and physiology specialized in nutrition and metabolism.** Faculty of Life Sciences, University of Burgundy, Dijon, France.

TEACHING & SUPERVISING ACTIVITIES

2020: **Practical works in animal physiology, cell biology and physiology** (64 hours) Faculty of Life Sciences, University of Burgundy, Dijon, France (for undergraduate students).

2018-2021: **Supervision of undergraduate and graduate research projects.**

SKILLS & EXPERTISE

PHYSIOLOGY AND METABOLISM IN MICE

- **Surgery and procedures:** handling of laboratory animals, compound administration (subcutaneous, intravenous and intraperitoneal injection), organ and blood collection, surgery techniques: anaesthesia, catheterization (portal vein), liver perfusion, intracardiac puncture, hematopoietic cell transplantation, experimental atherosclerosis, bone marrow cell isolation, sutures.

CELL BIOLOGY AND BIOCHEMISTRY

- **Cell biology:** cell culture (permanent cell line and primary culture), mouse and human macrophage generation, Kupffer cell isolation through liver perfusion.
- **Histology and microscopy:** immunocyto- and histochemistry, light and fluorescence microscopy, Eosin/hematoxylin staining, Oil Red O staining, Masson trichrome staining, TUNEL.
- **Biochemistry and analytic methods:** mass spectrometry, liquid chromatography, gas chromatography, cholesterol/phospholipid/fatty acid extraction, luminescence, fluorometry, spectrophotometry, organic extraction, human lipoprotein isolation, enzymatic assays, Luminex, ELISA.

MOLECULAR BIOLOGY

- **Promoter analysis and gene expression:** PCR, RT-PCR, Real-Time quantitative PCR, cloning, transfection, CrispR-Cas9 plasmid construction and generation, reporter gene, bacteriology adapted to molecular biology.
- **Protein expression and functions:** stable transfection, anti-sense RNA, RNAi, tagged-proteins, mutagenesis, Western Blot.

BIOINFORMATIC AND SOFTWARES

- Graphpad Prism, Zeiss Zen, Mendeley, Office Pack, QuPath, CellProfiler.
- Primers and probes design for qPCR, Snapgene.

LANGUAGES

- French: mother tongue
- English: fluent

DISTINCTIONS

2021: Poster award from the 16eme Congrès de la Nouvelle Société Francophone d'Athérosclérose, e-congrès, France.

2018: Doctoral Fellowship from the region Bourgogne Franche-Comté (3 years funding).

PUBLICATIONS

PEER-REVIEWED PAPERS

- Lebrun L*, **Pallot G***, *et al.* "Increased weight gain and insulin resistance in HF-fed PLTP deficient mice is related to altered inflammatory response and plasma transport of gut-derived LPS", s*ubmitted in Diabetes*, 2021.

- Nguyen M., **Pallot G**., Jalil A., Tavernier A... & Gautier T. Intra Intra-Abdominal Lipopolysaccharide Clearance and Inactivation in Peritonitis : Key Roles for Lipoproteins and the Phospholipid Transfer Protein-Abdominal Lipopolysaccharide Clearance and Inactivation in Peritonitis: Key Roles for Lipoproteins and the Phospholipid Transfer Protein**.** *Frontiers in Immunology,* 2021*.*

- Nguyen M, Gautier T, Reocreux G, **Pallot G** *et al.* "Increased Phospholipid Transfer Protein Activity Is Associated With Markers of Enhanced Lipopolysaccharide Clearance in Human During Cardiopulmonary Bypass" *Frontiers in Cardiovascular Medicine*, 2021.

- Ben Fradj S, …, **Pallot G**, *et al.* "Evidence for constitutive microbiota-dependent short-term control of food intake in mice: Is there a link with inflammation, oxidative stress, endotoxemia, and Glp-1?", *Antiox Redox Signal,* 2022.

- Chagué C, Gautier T, Dal Zuffo L, Pais de Barros JP, Wetzl A, Tarris G, **Pallot G** *et al.* "High-density lipoprotein infusion protects from acute graft-versus-host disease in experimental allogeneic hematopoietic cell transplantation". *Am J Transpl.* 2022.

PUBLISHED ABSTRACTS

- Nguyen M., **Pallot G**., Tavernier A., Dusuel A., Masson D., Lagrost L., Guinot PG., Gautier T and Bouhemad B. (2019). Lipoproteins and phospholipid transfer protein (PLTP) promote lipopolysaccharide (LPS) absorption and inactivation in a model of peritonitis.

COMMUNICATIONS

ORAL COMMUNICATIONS

- UMR1231 Seminar, June 14th, Influence of plasma phospholipid transfer protein on intestinal translocation of lipopolysaccharides.

POSTERS

- 16eme Congrès de la Nouvelle Société Francophone d'Athérosclérose (NSFA), e-congrès, France. Pallot G., Nguyen M., Tavernier A., Dusuel A., Pilot T… Gautier T. and Grober J. Influence de la protéine plasmatique de transfert des phospholipides sur la translocation intestinale des LPS, leur prise en charge par les lipoprotéines et leurs effets métaboliques.

- 38ème réunion scientifique annuelle de l'Association Française d'Étude et de Recherche sur l'Obésité (AFERO), e-congrès, Pallot G., Nguyen M., Tavernier A., Dusuel A., Pilot T… Gautier T. and Grober J. Influence de la protéine plasmatique de transfert des phospholipides sur la translocation intestinale des LPS, leur prise en charge par les lipoprotéines et leurs effets métaboliques.