

# Claire BERTON-CARABIN

Research director (Senior scientist)

& Team leader

INRAE | Research unit BIA, Nantes

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See also: <https://www.inrae.fr/actualites/claire-berton-carabin>



## ➤ Research interests

My research interests revolve around the interplay between the composition of oil-water interfaces, their structural organization and the physicochemical stability of food emulsions. My projects are based on a multiscale, multidisciplinary approach, and range from fundamental research, to primary production and characterization of emulsions all the way to ultimate digestion.

## ➤ Education

- 2019 Habilitation to lead research (PI diploma), **HDR** in Food Science: *Healthy, sustainable and stable: Towards a new generation of food emulsions*. University of Nantes, France
- 2011 **PhD** in Food Science : *Controlled design of interfaces to protect emulsified lipids against oxidation*. INRA (Research unit BIA, Biopolymers, Interactions, Assemblies) and University of Nantes, France
- 2008 **MSc** in Food Science and Technology (programme valedictorian). ENSCBP, University of Bordeaux 1, France

## ➤ Positions held

- Since 2020 **Research director** (DR2, senior scientist), INRAE (Research unit BIA, Biopolymers, Interactions, Assemblies), Nantes, France  
Leader of the team 'Interfaces and Dispersed Systems' (ISD) since 2023  
Co-affiliation as **Visiting Associate professor**, Laboratory of Food Process Engineering – Wageningen University and Research, NL  
2013-2020 **Assistant professor**, then **Associate professor** (2019), Laboratory of Food Process Engineering – Wageningen University and Research, NL
- 2013 **Post-doctoral researcher**, Danone-Nutricia Research, Utrecht, NL
- 2011-2013 **Post-doctoral researcher**, Food Science Department – The Pennsylvania State University, State College, USA

## ➤ Awards & distinctions

- 2022 **Promising researcher award** (“Laurier Espoir Scientifique”) of INRAE  
<https://www.inrae.fr/en/2022-inrae-awards>
  - 2017 **Young Lipid Scientist Award of the European network Euro Fed Lipid**  
<https://eurofedlipid.org/european-young-lipid-scientist-award/>
  - 2012 **PhD Prize (Dufrenoy medal) of the French Academy of Agriculture**
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## ➤ Main research projects & grants

- 2024 ANR France 2030 project (2024-2029; 2,3 M€). Project entitled “Towards mildly-processed and multifunctional protein-based ingredients of vegetable co-products rich in healthy lipids” (acronym **M2ProLIV**).
- 2022 ANR France 2030 project (2022-2027; 3 M€). Project entitled “Pushing back the limit to the use of legume proteins in human nutrition by improving seed quality and processing without compromising stress resistance” (acronym **LetsProSeed**).
- 2021 Personal grant “ConnectTalent” by Région Pays de la Loire (FR) (2021-2026; 520 k€). Project entitled “Healthy, sustainable and stable: Towards a new generation of food emulsions” (acronym **VESTA**).
- 2021 Grant by the TRANSFORM department of INRAE and Région Pays de la Loire (FR) for a PhD project (2021-2024; 98 k€). Project entitled “Formulation and digestion of food emulsions prepared with mildly transformed plant protein fractions”.
- 2020 ITN (EU, H2020) (2021-2026; 4.2 M€). Project entitled “Pickering emulsions for food applications” (acronym **PICKFOOD**).
- 2018 CHIPP project by NWO (Dutch Research Council), NL (2018-2023; 2 M€). Project entitled “Lipid oxidation control enabled by natural strategies” (acronym **LICENSE**).
- 2017 TIFN-NWO project, NL (2017-2022; 2.3 M€). Project entitled “Safeguarding food product structure and mechanical properties while using new sustainable sources and processing steps”.
- 2014 Grant by the graduate school VLAG (Wageningen, NL) for a PhD project (2015-2019; 210 k€). Project entitled “Tailored functionalities through structure design: New food emulsions stabilised by solid lipid nanoparticles”.

## ➤ Other institutional and collaborative activities

- 2023 Scientific committee of the international conference “*Lipid Droplets & Oleosomes*”, Wageningen, NL
- Since 2023 Member of the scientific advisory board of Institut Agro (France)
- Since 2021 Coordinator of the joint international lab (LIA BOOST) between INRAE-BIA and WUR (NL)
- 2020 Organiser of the international conference “*Journées Chevreuil*”, Paris, France
- Since 2019 Secretary and member of the executive board of SFEL (the French Society for Lipid Research)
- 2016 Organiser and local scientific committee member of the international *16<sup>th</sup> Food Colloids conference*, Wageningen, NL
- 2015-2018 Organiser of themed symposia within Wageningen University and Research (NL): *Bubbles and droplets* (2015); *Microscale investigation of multiphase systems* (2017); *Physical and chemical stability of Pickering emulsions* (2018)

## ➤ Research output

Number of peer-reviewed scientific publications: 105  
(of which 15 as first author and 41 as last author)  
Number of citations: >5000; and H-index: 41 (Google Scholar, April 2024)  
Patent: 1  
Guest/keynote lectures at national and international conferences: 10