Lise C. Noack

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Date of birth: 30/07/1992

Nationality: French

Languages: French (Native speaker), English (Fluent in spoken and written – B2 level validated)

Main expertise: Plant Cell Biology, Genetics, Molecular biology, and Live Imaging

Research

Current: April 2021 – present
Postdoc in Persson's lab at University of Copenhagen, Department of Plant and Environmental Sciences, Plant Glycobiology section, Copenhagen, Denmark

Subject: Control of Cellulose Synthase Complex trafficking by membrane lipids in *Arabidopsis thaliana*

Previous Lab experiences

- September 2017 to March 2021

PhD in Yvon Jaillais' Lab (Signalization and Endocytosis group) at the Plant Reproduction and Development (RDP), Lyon, France

Subject: Phosphatidylinositol-4-phosphate defines plasma membrane identity in Arabidopsis

- September 2016 to August 2017

Internship in Yvon Jaillais' Lab (Signalization and Endocytosis group) at the Plant Reproduction and Development (RDP), Lyon, France

Subject: Phosphatidylinositol-4-phosphate defines plasma membrane identity in Arabidopsis

- February to May 2016

Master internship in Jean Denis Faure's Lab at the Jean Pierre Bourgin's institute (IJPB), INRA, Versailles, France **(under the supervision of Dr Palauqui)**

Subject: Role of auxin transport in phloem differentiation in *Arabidopsis thaliana*

- September to December 2015

Master internship in Gregory Vert's lab at the institute of Cellular Integrative Biology (I2BC), Gif-sur-Yvette, France

Subject: Mechanism of BRI1 ubiquitination in *Arabidopsis thaliana*

- February to July 2015

Master internship in Pr John Christie's lab at the Institute of Molecular Cell and Systems Biology, University of Glasgow, Glasgow, UK

Subject: Study of NPH3/RPT2 protein family in the phototropism signalling pathway in *Arabidopsis thaliana*

- June to July 2014

Bachelor internship in Jaillais' Lab (Signalization and Endocytosis group) at the RDP, Lyon, France

Subject: Electrostatic interactions between PINOID and phospholipids at the plasma membrane in *Arabidopsis thaliana*

Education

Master in Bioscience – Magna Cum Laude 2014-2016

Ecole Normale Supérieure de Lyon (ENSL), Lyon, France.

Bachelor in Bioscience – with honours 2013-2014

Ecole Normale Supérieure de Lyon (ENSL), France.

Institution of higher education,

Entrance through competitive examination June 2013

"Classes préparatoires" of Biology, Chemistry, Physic, and Geology 2010-2013

Three-years intensive courses preparing for the competitive entrance examination to French "Grandes Ecoles"

Lycée Thiers, Marseille, France.

Scientific publications

- **Research articles:**

A nanodomain anchored-scaffolding complex is required for PI4Kα function and localization in plants.
Lise C Noack, Vincent Bayle, Laia Armengot, Rozier F Frédérique, Adiilah Mamode-Cassim, Floris D Stevens, Marie-Cécile Caillaud, Teun Munnik, Sébastein Mongrand, Roman Pleskot, Yvon Jaillais. bioRxiv 2020.12.08.415711; doi: https://doi.org/10.1101/2020.12.08.415711

Sphingolipids mediate polar sorting of PIN2 through phosphoinositide consumption at the trans-Golgi Network.
Yoko Ito, Nicolas Esnay, Matthieu Pierre Platre, **Lise C. Noack**, Wilhelm Menzel, Stephane Claverol, Patrick Moreau, Yvon Jaillais, Yohann Boutté.
bioRxiv 2020.05.12.090399; doi: https://doi.org/10.1101/2020.05.12.090399

Auxin-Regulated Reversible Inhibition of TMK1 Signaling by MAKR2 Modulates the Dynamics of Root Gravitropism.
Marquès-Bueno MM, Armengot L, **Noack LC**, Bareille J, Rodriguez L, Platre MP, Bayle V, Liu M, Opdenacker D, Vanneste S, Möller BK, Nimchuk ZL, Beeckman T, Caño-Delgado AI, Friml J, Jaillais Y. Curr Biol. 2021 Jan 11;31(1):228-237.e10. doi: 10.1016/j.cub.2020.10.011. Epub 2020 Nov 5. PMID: 33157019; PMCID: PMC7809621.

A Combinatorial Lipid Code Shapes the Electrostatic Landscape of Plant Endomembranes.
Platre MP, **Noack LC**, Doumane M, Bayle V, Simon MLA, Maneta-Peyret L, Fouillen L, Stanislas T, Armengot L, Pejchar P, Caillaud MC, Potocký M, Copic A, Moreau P, Jaillais Y. Dev Cell. 2018 May 21;45(4):465-480.e11. doi: 10.1016/j.devcel.2018.04.011.

+ Cover art of the issue 4, volume 45 by **Lise Noack**.

- **Contribution to books:**

Transient Gene Expression as a Tool to Monitor and Manipulate the Levels of Acidic Phospholipids in Plant Cells.
Noack LC, Pejchar P, Sekereš J, Jaillais Y, Potocký M. Methods Mol Biol. 2019;1992:189-199. doi: 10.1007/978-1-4939-9469-4_12.

- **Reviews:**

Functions of Anionic Lipids in Plants
Lise C. Noack and Yvon Jaillais. Annu. Rev. Plant Biol. 2020. (*In press*)

Precision targeting by phosphoinositides: how PIs direct endomembrane trafficking in plants.
Noack LC, Jaillais Y. Curr Opin Plant Biol. 2017 Dec;40:22-33. doi: 10.1016/j.pbi.2017.06.017.

- **Oral Communications**

Virtual UPSC Cutting-Edge Seminar Series 2021
Yvon Jaillais and **Lise Noack** (PhD student in Yvon's group)
Title: Anionic phospholipids across scales: from plasma membrane nanodomains to plant development

- **Poster Communications**

Phosphoinositol-4-phosphate production: Functional analysis of PI4Pkinase alpha1 in *Arabidopsis*
Lise Noack, Laia Armengot, Marie-Cecile Caillaud and Yvon Jaillais.
21st European Network for Plant Endomembrane Research (ENPER), Vienna, 4-7th September 2018

Courses and Training

Introduction to scientific English writing for biologists	September to December 2014
History of science and epistemology	December 2017 to February 2018
Introduction to statistics with R	November to December 2018
Ultra Microtome	February 2020
Transmission Electronic Microscopy	September 2020

Extra Curricular activities

Participation to the launching of the WATT (Women Ahead of Their Time) website to promote women in science as a story illustrator - http://watt.aronasoft.com/