

# Louise Norén Lindbäck, PhD

## Contact Information

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## Education

### Doctoral degree:

11.01.2010-10.06.2016

Umeå University, Umeå Plant Science Centre, Umeå, Sweden

*Doctor of Philosophy in Plant Molecular Biology*

Supervisor:

Professor Åsa Strand

Thesis title:

“Coordination of two different genomes in response to light and stress.”

Main projects:

1. Studying mechanisms and components involved in tetrapyrrole-mediated plastid signaling under photoperiodic growth and oxidative stress conditions.
2. Studying transcription factors regulating nuclear gene expression in response to light and cellular redox changes.

My graduate education included teaching (20%) and higher level academic courses (20%) in addition to the research training (60%). The output from my doctoral training includes 3 publications (see publication list) and also a manuscript in preparation.

### Master's degree:

2006-2010

Umeå University, Umeå, Sweden

*Master of Science in Molecular Biology*

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## Research Experience

01.03.2017-present

Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA

*Postdoc*

Research:

Characterizing interactions and signaling mechanisms of cryptochromes in *Arabidopsis thaliana*.

Supervisor:

Professor Ullas Pedmale

10.07.2016-12.16.2016

Umeå University, Umeå Plant Science Centre, Umeå, Sweden

*Research associate*

Research:

Elucidating the role of bZIP transcription factors during early light signaling in *Arabidopsis thaliana*.

Supervisor:

Professor Åsa Strand

10.20.2014-12.31.2014

University of Western Australia, Perth, Australia

*Research visit*

Research:

Plastid transcriptome analysis of a bZIP triple mutant.

Supervisor:

Professor Ian Small

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## Publications

1. **Norén L**, Kindgren P, Stachula P, Rühl M, Eriksson ME, Hurry V and Strand Å. (2016) Circadian and Plastid Signaling Pathways Are Integrated to Ensure Correct Expression of the *CBF* and *COR* Genes during Photoperiodic Growth. *Plant Physiology*; 171:1392–1406.
2. Shaikhali J, **Norén L**, Barajas López JD, Srivastava V, König J, Sauer UH, Wingsle G, Dietz K-J and Strand Å. (2012) Redox-mediated Mechanisms Regulate DNA Binding Activity of the G-group of Basic Region Leucine Zipper (bZIP) Transcription Factors in *Arabidopsis*. *The Journal of Biological Chemistry*; 287(33):27510-25.
3. Kindgren P, **Norén L**, Barajas López JD, Shaikhali J and Strand Å. (2012) Interplay between HEAT SHOCK PROTEIN 90 and HY5 controls *PhANG* expression in response to the GUN5 plastid signal. *Molecular Plant*; 5(4):901-13.

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## Teaching Experience

- 2018** **Teaching seminar at LIU Post, Brookville, NY, USA**  
Held a seminar on plant biology and light signaling to undergraduate and master's level graduate students in the Biology Department
- 2017-2018** **Teaching assistant, Cold Spring Harbor Laboratory, NY, USA**  
Teaching assistant for the light signaling part during the course "Frontiers & Techniques in Plant Science" held at Cold Spring Harbor Laboratory. Duties including planning and preparation of practical experiments and supervising during exercises.
- 2010 – 2016** **Teaching assistant, Umeå University, Sweden**  
Fully responsible for organizing and teaching a variety of laboratory practices in the field of plant biology for undergraduate students. Including grading of reports and presentations.

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## Supervising Activities

- 04.01.2017-ongoing** **Yuzhao Hu, Cold Spring Harbor Laboratory, NY, USA**  
Yuzhao started as a rotation student in Professor Pedmale's lab in April 2017 and thereafter continued as a graduate student. I have had a mentoring role supervising his training in the laboratory and planning of projects and experimental setup.
- 05.01.2017-ongoing** **Annabella Matheus, Cold Spring Harbor Laboratory, NY, USA**  
Annabella is a student from the Huntington High School, Huntington, New York, USA. She started as a volunteer in Professor Pedmale's lab in May 2017 and will stay until she graduates in June 2019. My role have been to handle the interview, plan for projects she will conduct and perform her training and supervision in the laboratory.

08.01.2017-04.30.2018

**Nivetha Shanmugarajah, Cold Spring Harbor Laboratory, NY, USA**

Nivetha is a student from the New Hyde Park High School, Garden City Park, New York. She is a student enrolled in the Partners for the Future program at Cold Spring Harbor Laboratory which provides selected students from Long Island with the opportunity to perform original research in a lab for a year in parallel with their high school studies. My role have been to handle the interview, plan for projects she will conduct and perform her training and supervision in the laboratory.

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## Conferences and Invited Presentations

- 2018** Dynamic Plant Systems Gordon Research Conference  
Location: Holderness, NH, US  
Contribution: **poster presentation:** *The regulation of cryptochrome photoreceptors by reversible ubiquitination*
- 2018** The 2018 International Symposium on Plant Photobiology  
Location: Matsue, Japan
- 2014** The Swedish Developmental Biology Organization 2nd Conference (SWEDBO)  
Location: Umeå University, Umeå, Sweden  
Contribution: **poster presentation:** *Integration of light, circadian and plastid signaling in Arabidopsis thaliana.*
- 2013** Plant Energy Biology (PEB) Retreat  
Location: Sydney, Australia  
Contribution: **invited speaker** for an oral presentation: *Redox-mediated Regulation of bZIP Transcription Factors*
- 2013** The 24<sup>th</sup> International Conference on Arabidopsis Research  
Location: Sydney, Australia  
Contribution: **poster presentation:** *The Tetrapyrrole Mediated Plastid Signal Negatively Regulates CBF Expression under Circadian Control in Arabidopsis.*
- 2013** The 2013 International Symposium on Plant Photobiology  
Location: Edinburgh, UK  
Contribution: **poster presentation and short oral presentation:** *The Tetrapyrrole Mediated Plastid Signal Negatively Regulates CBF Expression under Circadian Control in Arabidopsis.*
- 2012** 7<sup>th</sup> Scandinavian Plant Physiology Society (SPPS) PhD Student Conference  
Location: Laulasmaa, Estonia  
Contribution: **poster presentation:** *Interplay between HEAT SHOCK PROTEIN 90 and HY5 controls PhANG Expression in Response to the GUN5 Plastid Signal.*
- 2012** The Mitochondria & Chloroplasts Gordon Research Conference  
Location: Boston, USA  
Contribution: **poster presentation:** *Interplay between HEAT SHOCK PROTEIN 90 and HY5 controls PhANG Expression in Response to the GUN5 Plastid Signal.*

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## Awards and Grants

**Kempe Foundation:** Awarded travel grants in **2012** to attend the Mitochondria & Chloroplasts Gordon Research Conference and Seminar held in Boston, USA and in **2013** to attend the 2013 International Symposium on Plant Photobiology (ISPP) held in Edinburgh, UK.

**Wallenberg Foundation:** Awarded travel grant in **2012** to attend the 7<sup>th</sup> SPPS PhD Student Conference held in Laulasmaa, Estonia.

**The Swedish Foundation for International Cooperation in Research and Higher Education (STINT):** Awarded travel grants in **2013** to attend the **24<sup>th</sup> International Conference on Arabidopsis Research (ICAR)** and the Plant Energy Biology (PEB) retreat, both held in Sydney, Australia, and in **2014** for a research visit in the lab of Professor Ian Small at the University of Western Australia, Perth, Australia

**Best student poster award:** awarded at the 24<sup>th</sup> International Conference on Arabidopsis Research in Sydney, Australia in **2013**.

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## Public Engagement Activities

<b>2017</b>	<b>WAC Science Fair, New York, USA</b>
Description:	Science Fair with 12 high schools participating in New York. Over 400 students are presenting their science projects which are judged by scientists.
Contribution:	Volunteered as a scientific judge.
<b>2014-2015</b>	<b>Fascination of plants day, Umeå, Sweden</b>
Description:	Public event demonstrating the importance of plant science in the society and activities related to plants attracting and interacting with the public. 1-day event every year.
Contribution:	Highly interactive exhibition about plant pigments.
<b>2011-2013</b>	<b>Scientific summer camp, Umeå, Sweden</b>
Description:	1-week of scientific activities for junior high school students.
Contribution:	Highly interactive activities and experiments with the students aiming to raise their awareness and interest in plant science.

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## Other Merits

**Organizer:** **Organizer for seminar series, Cold Spring Harbor Laboratory, NY, USA**  
Fully responsible for organizing a seminar series including all graduate students, postdocs and associated research investigators from five plant research groups at Cold Spring Harbor Laboratory during 2017-2019.

**Languages:** Native in Swedish, fluent in English.