

Speaker: **Prof. Dr. Stig Uggerhøj Andersen**
Department of Molecular Biology and
Genetics, Aarhus University, Denmark



Title: **Genomics of faba bean agronomic and
quality traits**

Time: **Tuesday, August 12, 2025, 2 pm**
[https://ipk-gatersleben-de.zoom-
x.de/j/6138455744?pwd=UhpsDCRLxkJFupeU80jfV16Cby4xTD.1](https://ipk-gatersleben-de.zoom-
x.de/j/6138455744?pwd=UhpsDCRLxkJFupeU80jfV16Cby4xTD.1)
Meeting-ID: 613 8455 5744
Kenncode: 968781

Place: **IPK Lecture Hall and via Zoom,**
Corrensstr. 3, 06466 Seeland OT Gatersleben

Abstract:

Plant Faba bean (*Vicia faba*) is a globally adapted protein crop with a high yield potential and an exceptional nitrogen fixation capacity. Just a decade ago, faba bean was an orphan crop with scarce genetic and genomic resources. However, the development of the first reference genomes [1-2] has paved the way for high-resolution gene mapping and molecular genetics. I will illustrate how this new genomic information is enabling us identify markers and candidate genes robustly associated with agronomic traits across populations. I will also share our emerging understanding of the genetics that control genotype by environment interactions for yield, and how this is allowing us to predict the performance of specific genotypes in unseen environments. Finally, I will discuss the ongoing efforts to further enhance faba bean resources, including characterisation of expression at the single-cell level.

References:

[1] Jayakodi, M. et al. The giant diploid faba genome unlocks variation in a global protein crop. *Nature* 615, 652–659 (2023).

[2] <https://projects.au.dk/fabagenome>

Short CV

Stig Uggerhøj Andersen received his PhD degree in 2004 from Aarhus University, Denmark, and then worked in a local biotech start-up company before taking up a two-year postdoctoral position focusing on stem cell biology and cell cycle regulation in Jan U. Lohmann's group in Detlef Weigel's department at the Max Planck Institute in Tübingen, Germany. He has worked at Aarhus University, where he is now a professor, since 2007. His research focuses on legume genetics and genomics and plant-microbe interactions. Recently, he led the faba bean genome consortium and currently directs the Novo Nordisk Foundation Challenge program N2CROP.

Education and training

2017 - IFD Pasteur program leadership course, HBS, Harvard University

2016 - EMBO laboratory management course

2004 - PhD degree in molecular biology, Aarhus University

2002 - MSc degree in molecular biology, Aarhus University

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List of publications on Google scholar: <https://scholar.google.com/citations?user=wAgtbFwAAAAJ>

Prof. Dr. Nils Stein (Organizer and host)