

Svante Resjö

Nova course 2022

## **NOVA PhD course – Common Data Standards and Integrative Analytic Methods for Plant Phenotyping, 28 November – 2 December, 2022, 3 ECTS**

### **Course schedule**

Course preparations: Prepare article for journal club + present the data management strategy of home institution/university and whether that would accommodate phenomics data well + prepare AI phenomics exercise to be sent out one week before.

#### **Monday: Introduction to phenotyping and high-throughput imaging (venue: Sunnan, SLU Alnarp)**

09.00 – 10.00 Course introduction (EA)

10.00 – 11.00 Introduction to phenomics (JCW)

11.00 - 12.00 Imaging in high-throughput facilities (SP)

12.00-13.00 Lunch break

13.00-16.00 Lectures and demos + exercises on hyper- and multispectral imaging (JCW & SP)

#### **Tuesday: Spectral imaging, imaging data and common data standards (venue: Sunnan, SLU Alnarp)**

09.00- 12.00 Workshop 1 - Multispectral data processing practical (JCW, SP, SR, TP, GK)

12.00-13.00 Lunch break

13.00 – 14.00 Workshop 1 sum up

14.00 – 17.00 Lecture on ontologies and workshop 2 - Introduction to MIAPPE (CM)

#### **Evening: Preparation for literature study presentation**

#### **Wednesday: Large-scale phenotyping (venue: Blå Hallen, Lund University)**

**PLEASE NOTE: this day we will be in Lund all day!**

09.00 – 10.00 Field phenotyping (LE)

10.00 – 11.00 Research in Nordic high throughput phenotyping facilities (EA & Thomas Roitsch)

11.00 – 12:00 Working with common data standards in NordPlant (TP, JCW, SP)

12.00 – 13.00 Lunch break

13:00 NordPlant annual day

**17.00 Social event: Mingle**

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**Thursday: Analysis and interpretation of phenomics data (venue: Stora Sessionssalen, SLU Alnarp)**

9.00-12.00 Phenomics AI with exercise (AH & FN)

12.00-13.00 Lunch break

13.00-16.00 Data processing hackathon

-13.00-14.00 MIAPPE and how import data into PHIS (SP & TP)

-14.00-16.00 PlotCut2 on preloaded USB and demo of PlotCut3 (JCW & SP)

**Friday: Integration of phenotyping and other data (venue: see below)**

9.00-11.00 Journal club presentation and discussion (JCW, SP, SR, TP, EA) **(venue: group rooms in Articum, SLU Alnarp)**

11.30 – 12.00 Integrating physiological data (SP) **(venue: Sunnan, SLU Alnarp)**

12.00-13.00 Lunch break

13.00-15.00 Presentation of home institution/university data management structure with short introduction by Tatu Polvinen **(venue: Sunnan, SLU Alnarp)**

15:00 Course wrap up and evaluation **(venue: Sunnan, SLU Alnarp)**

15:30 Course end **(venue: Sunnan, SLU Alnarp)**

**Teachers**

**EA:** Erik Alexandersson, SLU

**JCW:** Jesper Cairo Westergaard, UCPH

**TP:** Tatu Polvinen, UH

**SP:** Sylvain Poque, UH

**SR:** Svante Resjö, SLU

**GK:** Greg Konert, UiT

**CM:** Célia Michotey, INRAE

**LE :** Lars Eklundh, LU

**AH:** Antoine Harfouche, UNITUS

**FN:** Farid Nakhle, UNITUS