

## Announcement

### 1<sup>st</sup> AAB-PlantEd Training School 4 – 8 August 2025, Düsseldorf, Germany

#### Scope of the training school

The 1<sup>st</sup> AAB-PlantEd Training School will offer theoretical and practical training on effectively conducting targeted plant mutagenesis. This will encompass gRNA selection, vector construction, isolation of immature barley embryos, protoplast isolation, and methods for mutant selection, including PCR/RE and T7EI assays. Furthermore, distinguished scientists (Laurens Pauwels, Ghent University; Katrijn van Laere, ILVO; Sadiye Hayta and Mark Smedley, John Innes Centre) will lecture on the subject and its applications.

AAB (<https://www.aab.org.uk>), CEPLAS (<https://www.ceplas.eu/en/home/>), and the German Society for Plant Biotechnology e.V. (<https://www.pflanzen-biotechnologie.de/english-1/>) provide logistical and financial support for the conference.

#### Application and selection process

The Training School will accommodate 16 early-career researchers (ECRs). Applications should include a cover letter explaining how the knowledge gained will directly advance ongoing research or career development, a CV, and a statement indicating the applicant's interest in travel funding. The application deadline is 30 April 2025. Further information is available from Götz Hensel ([goetz.hensel@hhu.de](mailto:goetz.hensel@hhu.de)). Members of the specialist group committee (<https://www.aab.org.uk/specialist-groups/planted/>) will select the candidates. Selection criteria are based on sound scientific practice, including the excellence of the application, gender balance, and geographical distribution. Successful applicants will be notified by 15 May 2025.

No registration fee is required; however, applicants are responsible for their travel and accommodation expenses. We will provide several coffee breaks throughout the event, and participants can access the Mensa, which offers meals at reasonable prices.

Program Training School @UDUS – 4-8 August '25

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**Monday, August 4 – gRNA design and vector construction**

- 09:00 Arrival @UDUS Universitätstr. 1, 40225 Düsseldorf, 26.14.02.014
- 09:00 – 09:45: Introduction and overview of the CRISPR experiment by Goetz Hensel
- gRNA design by Mark Smedley and Goetz Hensel
  - 09:45 – 11:00: Theory on gRNA design to set the scene; gRNA design for gene families.
- **11:00 – 11:30: Coffee Break**
  - 11:30 – 12:30: Exercise on gRNA design
- **12:30 – 13:30 – Lunch Mensa UDUS**
- Vector construction by Katrijn Van Laere and Laurens Pauwels
  - 13:30 – 14:30: Theory on vector construction
- **14:30 – 15:00 – Coffee Break**
  - 14:30 – 16:30: *in silico* cloning exercise
- **17:30: Stroll along the Rhine - Media Harbor to Altstadt**

**Tuesday, August 5 – Immature embryo isolation**

- 09:00: Arrival @UDUS 26.14.02.014
- Lectures:
  - 09:00 – 09:45: Lecture 1 by Laurens Pauwels: Multiplex Gene Editing in Maize
  - 09:45 – 10:30: Lecture 2 by Sadiye Hayta: Current transformation methods for wheat
- **10:30 – 11:15 – Coffee Break**
  - 11:15 – 12:00: Lecture 3 by Katrijn Van Laere on the opportunities of tissue culture systems
- **12:00 – 13:00 – Lunch Mensa UDUS**
- Isolation of immature embryos by Sadiye Hayta and Pouneh Pouramini
  - 13:00 – 13:30: Demo part of immature embryo isolation
  - 13:30 – 15:00: Exercise of immature embryo isolation
- **15:00 – 15:30 – Coffee Break**
  - 15:30 – 17:00: Transformation with agrobacteria
- **17:00: Pizza and beer**

**Wednesday, August 6 – Protoplast isolation**

- 09:00: Arrival @UDUS 26.14.02.014
- 9:00 – 9:30: Intro into protoplast isolation by Katrijn Van Laere
- 9:45 – 12:00: Isolation of protoplasts by Katrijn Van Laere and Katarzyna Makowska
- **12:00 – 13:00 – Lunch Mensa UDUS**
- 13:00 – 16:00: Transgene PCR and segregation analysis exercise by Goetz Hensel
- **14:30 – 15:00: Coffee Break**
- 16:00 – 17:00: Protoplast transfection by Katrijn Van Laere and Katarzyna Makowska  
**Explore Düsseldorf on your own**

**Thursday, August 7 – Screening of edits**

- 09:00: Arrival @UDUS 26.14.02.014
- 09:00 – 12:00: PCR/RE assay by Pichaporn Chuenban and Goetz Hensel
- Lectures:
  - 09:30 – 10:15: Lecture by Sadiye Hayta: Extending gene editing into elite wheat cultivars.
- **10:15 – 10:30: Coffee Break**
  - 10:30 – 11:15: Lecture by Katrijn Van Laere: Genome Editing – Case Studies on Efficiencies, High-Throughput Genome Editing, and Upscaling
- **12:00 – 13:00 – Lunch Mensa UDUS**
- 13:00 – 15:00: RNP-mediated DSB induction by Goetz Hensel
- **15:00 – 15:30: Coffee Break**
- 15:30 – 17:00: RNP-mediated DSB induction by Goetz Hensel
- **18:00: Brewery tour and dinner**

**Friday, August 8 – Screening of edits**

- 09:00: Arrival @UDUS 26.14.02.014
- 09:00 – 09:45: GFP check microscope – Goetz Hensel
- 09:45 – 11:00: Exercises on edit screening using TIDE or ICE by Goetz Hensel
- **10:15 – 10:30: Coffee Break**
- 11:00 – 12:00: Summary and Feedback moment
- **12:30: End of the training school; lunch at Mensa UDUS or departure**

## Accommodation

Accommodation during the training school is optional. There are lots of hotels and B&Bs in Dusseldorf.

Below is a list of some few hotels:

### **Near conference venue and university:**

HK-Hotel Düsseldorf City\*\*\*\*

Varnhagenstraße 37

+49 (0)211 310800

info@hk-hotels-duesseldorf.de

### **Near central train station (Hbf) and Altstadt:**

Novum Hotel Madison Düsseldorf\*\*\*\*

Graf-Adolf-Str. 94

+49 (0)211 16850

madison@novum-hotels.com

Ibis Hotel Düsseldorf Hauptbahnhof\*\*

Konrad-Adenauer-Platz 14

+49 (0)211 16720

H0793@ACCOR.COM

Leonardo Hotel Düsseldorf City Center\*\*\*\*

Ludwig-Erhard-Allee 3

+49 (0)211 7771977

info.duesseldorfcitycenter@leonardo-hotels.com

B&B Hotel Düsseldorf City-Süd

Kruppstraße 32

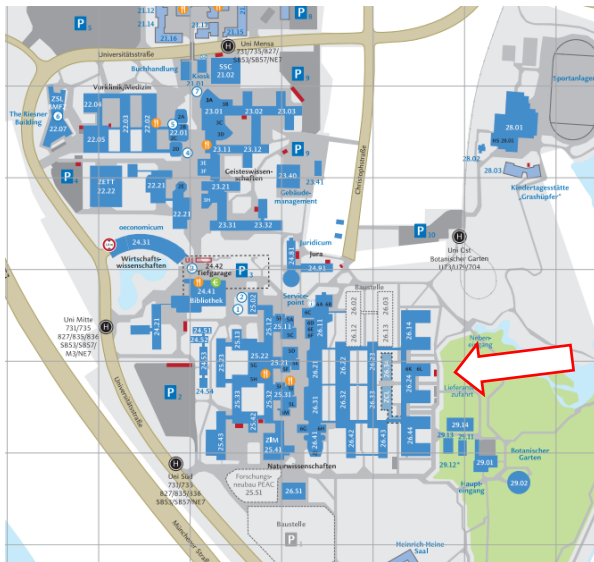
+49 0211 650237-0

duesseldorf-city-sued@hotelbb.com

The training school will be held at “ENB” of Heinrich-Heine-University Dusseldorf.



The venue is close to the Botanical Garden of the HHU and well connected to public transport.



Düsseldorf Airport ranks fourth in Germany, offering over 230 destinations across 65 countries. The city is well connected by train and bus.

For more information, please visit the respective web pages:

Airport: <https://www.dus.com/>

Train: <https://www.bahn.com/en>

Local information: <https://www.duesseldorf-tourismus.de/en>