



# Plant Facility

## What we do

One example for work carried out in our facility is a forward genetic screen carried out by Shutang Tan, a post-doc of the Friml group. Salicylic acid (SA) is a known immune signal in plants that plays essential roles in plant pathogen response via a well-characterized signaling pathway. Additionally SA inhibits endocytic trafficking in *Arabidopsis thaliana* by a yet unknown mechanism. In order to identify novel regulators of the SA response Shutang screened about 80.000 M2 seedlings (M2 generation of the mutated population), of which he recovered around 500 mutants showing difference in SA sensitivity. Of the 500 initially isolated mutants 14 were confirmed and are currently being mapped by next-generation sequencing (NGS).

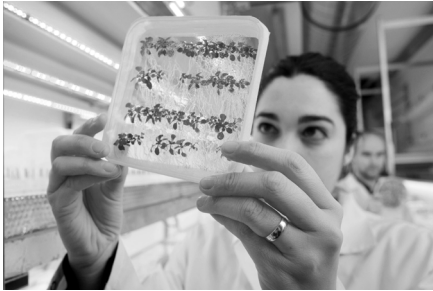
### IST Austria

Am Campus 1, 3400 Klosterneuburg  
Central building 101  
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#### Plant growth facility

All shelves are equipped with LED modules (Philips) and are individually ventilated. Watering of plants is done manually.



#### Seedling growth facility

Shelves are equipped with LED modules (Philips). Shelves are ventilated either from the back or from within the shelf base.



#### Base ventilation of shelves

The base ventilation of shelves is particularly well suited for experiments where plates have to be horizontally incubated.



#### Incubator cabinets

Incubator cabinets are available for small to medium scale experiments that require off-standard conditions (light, temperature).

## Services and Methodologies Provided

The Plant Facility supports the plant biologists at IST Austria with maintaining specific breeds (cultivating seedlings, growing plants, and harvesting seeds) in defined conditions. Fully operational since 2014, the Plant Facility is where mostly Arabidopsis and Tobacco species are handled for current research projects.

Specific services of the facility are:

- Plant care (e.g., watering of plants, pest control, etc.)
- Maintenance breeding of specific plant lines
- Cleaning and maintenance of facility
- Stock keeping and ordering of consumables

## Equipment

- The Plant Facility consists of two rooms for growing plants (8m<sup>2</sup> and 25m<sup>2</sup>; total capacity of 288 trays), two rooms for preparation of soil and harvesting of seeds, respectively (8 and 12m<sup>2</sup>), and one room for growing seedlings on plates (20m<sup>2</sup>).
- All plant rooms are fully equipped with LED lamps optimized for plant growth.
- In addition incubator cabinets for experiments that require specific experimental conditions (e.g. light-cycle, wavelength, etc.) are provided.

## Contact and Location

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