



# Saclay Plant Sciences LabEx Kick-Off meeting

## Coordination for teaching and training in Plant Sciences and Biotechnology

October 13, 2011



## Teaching and training steering committee (12 members)

Jean-Denis Faure (IJPB, AgroParisTech, coord.), Master

Jean-Marc Seng (IBP, Paris-Sud 11), Master

Bénédicte Sturbois (URGV, Université Evry), Master

Françoise Budar (IJPB, INRA), Master

Patricia Faivre Rampant (URGV, Université Evry), Master

Christine Lelandais (ISV, Paris 7), Master

Marianne Delarue (IBP, Paris-Sud 11), Doctoral studies

Michel Dron (IBP, Paris-Sud 11), European network

Catherine Perrot-Rechenmann (ISV, CNRS), European network

Isabelle Debeaujon (IJPB, INRA). European network

Hélène Vanecker (IBP, Paris-Sud 11), Professional training

Stéphanie Baumberger (IJPB, AgroParisTech), Professional training

-

# Teaching and Training (T&T)

## Objectives

- 1) To support T&T in emerging fields and at the interface between disciplines
- 2) To develop synergy between T&T, research and innovation
- 3) To improve the T&T organisation and communication

## Projects

1. To set-up an international Master program in plant biology (M1&M2).
2. To provide technical environment (classrooms and equipment) for practical training
3. To promote student involvement in plant biotech innovation and valorisation of SPS research

# T&T – Teaching projects(I)

## ➤ Toward integrated Master speciality in Plant Sciences

- Coordination of Plant Science teaching among Masters P11 (SDV), APT (STEVE) and UEVE (BSS)
- International cooperation network (discussion with VIB Ghent, Nottingham, Wageningen, Umea)
- Encourage student mobility (transport and videoconferences, international visits, meetings) and teaching chairs for specific programs. 275 k€/ 4 years
- Coordination of Master IQPV (P11) and Dominante Ingénieur SIBA & ExPPRes (APT)
- Dedicated funding for innovation and valorisation teaching (Risk assesment, marketing, IP etc.) 40k€/ 4 years



## T&T – Teaching projects (II)

### ➤ Support hands-on programs and personal projects (TD +TP)

- Provide teaching of emerging and interdisciplinary fields in plant biology (mathematics and modelisation, physics and mechanical constraints, chemistry and metabolomics etc.)
- Increase student tutoring and directed work (TD)
- Practical training program (TP) in M1/M2 Physiology&Metabolomics (IBP), Molecular Genetics&Cell biology(IJPB). Equipment 342 k€
- Specific training program for proof-of-concept projects for valorisation of LABEX research
- Specific funding of one proof-of-concept project per year 40k€/ 4 years

# T&T – Teaching actions

## 1. Set-up of « SPS labelled » teaching modules in M1 and M2 based on :

- transversal involvement of LABEX staff and students
- programs with reduced formal course and increased hands-on projects
- learning specific technical and/or scientific skills
- Larger involvement of English-based classes
- Know-how from LABEX

-> promote coordinated and mutualised teaching program

Short term objectives : set-up one M1 and 1-2 M2 “SPS” modules for 2012-2013

Long term objectives : coordination/mutualisation of a plant biology M1&M2 program

# T&T – Teaching actions

## 2. Open calls for teaching and training specific operations

- Same criteria as for « SPS labelled » teaching modules
- Specific operations (forums, visits for students, invitation of foreign teacher/trainer etc...)
- > First funded operation : funding of a professional forum gathering Master (Master 2 IQPV) and Engineers (Dominante AgroParisTech EXPPRES) students with Plant based companies.
- > Open SPS training and teaching to professional world, european academia and new topics

Short term objectives : fund 1-2 visiting professor chair/year; 1-2 professional forums, get european students in SPS T&T programs

Long term objectives : promote an European Plant Biology Master Program

**Nom : VANACKER**

**Prénom : Hélène**

**Laboratoire : IBP – signalisation redox**

**Email : helene.vanacker@u-psud.fr**

**Tel : 01 69 15 33 38**

**Date de la demande : 08/09/2011**

### **Action Mise en Place d'Evènements**

Nature de l'évènement : Journée des Métiers (forum d'entreprises)

Formation(s) concernée(s) : Parcours pro IQPV (sp. SDV, Master Biologie-Santé UP11) et Dominantes ExPRES (APT)

Nombre d'étudiants/doctorants concernés : 25

Dates et durée de l'évènement : journée du 7 octobre 2011

Financement demandé : 647 euros

Justification du financement : Journée de rencontre entre une quinzaine de sociétés privées et les étudiants IQPV et ExPRES. Présentation des sociétés, des métiers associés (protection et production, secteur agro/agri), propositions de stages et d'emplois. Financement pour buffet du midi. Cette journée a eu lieu à l'IBP.



# T&T – Teaching actions

## 2. Open calls for teaching and training specific operations

- Same criteria as for « SPS labelled » teaching modules
- Specific operations (forums, visits for students, invitation of foreign teacher/trainer etc...)
  - > First funded operation : funding of a professional forum gathering Master (Master 2 IQPV) and Engineers (Dominante AgroParisTech EXPPRES) students with Plant based companies.
  - > Open SPS training and teaching to professional world, european academia and new topics

Short term objectives : fund 1-2 visiting professor chair/year; 1-2 professional forums, get european students in SPS T&T programs

Long term objectives : promote an European Plant Biology Master Program

# T&T – Teaching actions

## 3. Invest in T&T equipment

### Set-up of two teaching laboratories

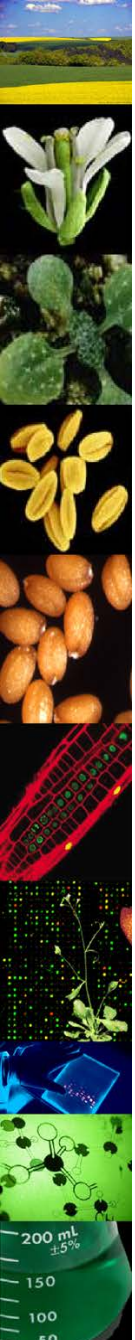
- Physiology and metabolomics (IBP)
- Molecular genetics and cell biology (IJPB)

-> Favor hands-on training in plant biology and biotechnology

Short term objectives : set-up a practical training program in M1 and M2 (2012-2013)

### Facilitate communication between SPS sites

- Visioconference equipment
- Mobility funding (Bus?)

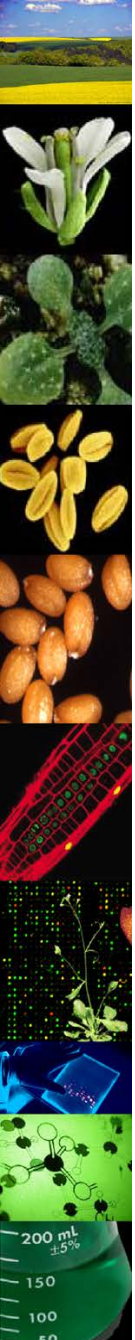


## T&T - Research training

The objective is to provide the best research structure to favor the training of as many students as possible in plant biology and biotechnology.

### Actions

1. - LABEX will fund stipends for engineer and master students during their research training rotations in the laboratories.
- 2.- Provide specific PhD scholarships for LABEX projects
3. - Improve doctoral training by providing additional expertise in research innovation and valorisation



## T&T - innovation and valorisation

### Actions

- 1.- Improve student networking with corporate world.
- 2.- Set up specific teaching program to train students on legal rights, IP, marketing, public acceptance etc...
3. - LABEX will fund selected projects (Master or graduate) to carry on and test the possibility of further development or proof-of-concept (for ultimately prepare submission of application to French biotechnology calls).
4. - Development of a Junior enterprise or a foundation that could also sustain the development of in house projects promoted by Master or doctoral students

## T&T – Out-reach initiatives

The excellence of LABEX research and training should help promoting plant science outside the laboratories and to foster discussion on the involvement of plant research in agriculture and industry.

1. **Share LABEX knowledge and expertise.** The development of basic classes (in plant genetics, physiology and chemistry) will be proposed to LABEX staff and to schools and professional on during their visits to LABEX.

2. **Develop the access of LABEX laboratories to the public**

- > Open doors days
- > Educational green house
- > High school science project

[http://www.versailles-grignon.inra.fr/partager\\_les\\_connaissances/espace\\_enseignants/transformation\\_genetique\\_d\\_une\\_plante](http://www.versailles-grignon.inra.fr/partager_les_connaissances/espace_enseignants/transformation_genetique_d_une_plante)

3. **Promote LABEX-based exhibits to Science Fairs "fête de la science"**

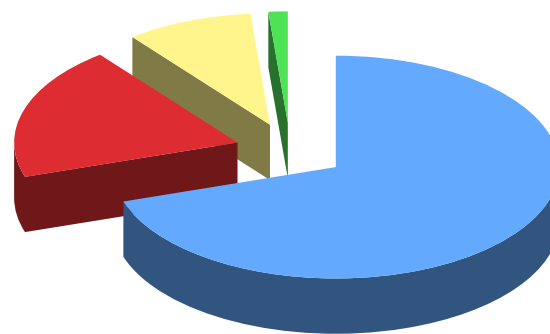
# SPS Teaching and Training - budget

|                            |       |
|----------------------------|-------|
| ➤ M1/M2 Training stipends  | 210k€ |
| ➤ Salaries (Web, database) | 51k€  |
| ➤ Equipment                | 360k€ |
| ➤ Consumables              | 30k€  |
| ➤ Subcontracting           | 9k€   |
| ➤ Mobility                 | 130k€ |

• **Total T&T : 790 840€ / 4ans**

**T&T : 197k€ / year**  
**19% budget LABEX**

Distribution of fundings by activities: mean of the first f  
( k€/year)



# SPS T&T agenda

|  | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|------|------|------|------|------|------|------|------|------|------|
| Master speciality                          |      |      | X    | X    | X    | X    | X    | X    | X    | X    |
| International programs<br>(Erasmus Mundus) |      |      |      | X    | X    | X    | X    | X    | X    | X    |
| Technical platform                         | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    |
| Junior entreprise                          |      |      | X    | X    | X    | X    | X    | X    | X    | X    |
| Mobility                                   |      | X    | X    | X    | X    | X    | X    | X    | X    | X    |

