



EU Horizon 2020 project G2P-SOL

*Linking genetic resources, genomes  
and phenotypes of Solanaceous crops*



World Vegetable Center

ENTRY LEVEL  
TRAINING SCHOOL



## VEGETABLE GERmplasm DIVERSITY AND BREEDING

ICRISAT campus

Patancheru, Hyderabad, India

22-25 January 2018

Effective vegetable breeding requires a continuous supply of new traits conferring resistance to pests and diseases and tolerance to abiotic stresses. Breeders need the skills to utilize these traits in breeding.

This training school organized in the framework of the EU project G2P-SOL will provide guidance on how to use vegetable diversity for breeding improved vegetable cultivars.

The World Vegetable Center, an internationally renowned institute for vegetable research, is a leader in offering training for the vegetable seed industry. In practical, hands-on sessions experts from WorldVeg share their knowledge to help participants develop the skills and insight necessary to succeed in improving cultivars. Over the last two years, the Bangladeshi seed industry has benefited from six WorldVeg courses based on needs articulated by breeders and company managers.

### WHAT WE OFFER

A four-day course with a blend of theory and practice on the use of vegetable diversity in breeding

#### Module 1: Access to vegetable biodiversity for breeding improved varieties

- Vegetable biodiversity
- Legal framework for germplasm collection and exchange
- Identifying germplasm collection gaps
- Germplasm databases
- Core collections
- Germplasm conservation and regeneration
- Trait capture in germplasm collections
- Pre-breeding
- Marker-assisted selection

#### Module 2: Vegetable breeding

- Use of new germplasm and new traits in breeding
- Maintaining seed quality
- Pyramiding disease resistance genes
- Molecular breeding

#### Module 3: Planning and analysis of field trials

- Planning of field trials
- Models for analyzing yield data
- Use of breeding information systems

## OUR TRAINERS

### Dr. Peter Hanson – WorldVeg, Taiwan

Globally known expert with more than 30 years of experience in tomato breeding. He has conducted numerous training programs for industry in all aspects of vegetable breeding.

### Prof. Dr. Jaime Prohens – Universitat Politècnica de València, Spain

Director of the Institute for Conservation and Improvement of Agrodiversity at Universitat Politècnica de València and Head of the Solanaceae Breeding Section. Dr. Prohens works on germplasm conservation and introgression breeding for developing new varieties, in particular those adapted to climate change.

### Dr. Roland Schafleitner – WorldVeg, Taiwan

Head of Molecular Genetics and Flagship Program Leader-Vegetable Diversity and Improvement. He has a strong interest in mobilizing vegetable biodiversity for breeding improved varieties.

### Ms. Didit Ledesma – WorldVeg, Taiwan

Biometrician with extensive experience in conducting training courses on experimental design and data analysis in vegetable research for scientists and global partners/collaborators of WorldVeg.

### Ms. Sophie Chou – WorldVeg, Taiwan

Curator for tomato, pepper and Phaseolus and database specialist, Ms. Chou is responsible for the Worldveg Vegetable Genetic Resources Information System (AVGRIS).

## TRAINING PROGRAM

| Date                           | Activities   |
|--------------------------------|--|
| 22 January 2018<br>(Monday)    | Arrival at World Vegetable Center, South Asia, Hyderabad, India.<br><b>Opening remarks and introduction</b> <ul style="list-style-type: none"><li>germplasm collection and conservation</li><li>access to genebank collections</li><li>pre-breeding and marker-assisted selection</li></ul>                |
| 23 January 2018<br>(Tuesday)   | <b>Introduction to vegetable breeding</b> <ul style="list-style-type: none"><li>use of new germplasm and new traits in breeding</li><li>pyramiding disease resistance genes</li><li>molecular breeding</li></ul>   |
| 24 January 2018<br>(Wednesday) | <b>Biometry</b> <ul style="list-style-type: none"><li>experimental designs for breeding trials</li><li>statistical analysis of trial data</li><li>breeding information systems</li></ul>   |
| 25 January 2018<br>(Thursday)  | <b>Support for vegetable breeding by the G2P-SOL project</b> <ul style="list-style-type: none"><li>training need analysis</li><li>field visit to tomato and pepper trials</li><li>wrap up discussion and workshop evaluation</li></ul> Departure from World Vegetable Center, South Asia, Hyderabad, India |



### WHO SHOULD APPLY

Junior vegetable breeders from South and Southeast Asian countries with vegetable breeding experience and good English language skills.

### TRAINING FEES

The training school is organized in the framework of the **G2P-SOL** project funded under the **European Union's Horizon 2020** research and innovation program. The project can fund a maximum of 20 qualified applicants, including airfare, room and board, insurance, tuition, etc. Further details will be specified in the invitation letter.

In addition, 10 qualified applicants can participate at a nominal charge:

- (a) with full campus accommodation and meals: INR 20000 or USD 310, excluding travel costs
- (b) with meals only (own accommodation organized): INR 10000 or USD 150

Fully funded participation will be provided to participants chosen in a draw-based lottery. If the course is oversubscribed, the additional paid participants also will be chosen by lottery. An invitation letter will be issued to the winning participants within a week after the closure of the application deadline.

### HOW TO APPLY

The applicants are required to complete the online application form: <https://goo.gl/j26jAK> or scan the QR code to go to the application form.

Please fill out and submit the online application form before **10 December 2017**. Applications received after this date will not be considered. **Apply now!**

