POSTDOCTORAL FELLOWSHIP PROGRAM FOR PhD RECIPIENTS FROM INSTITUES IN CHINA & INDIA: 2013-2014 PROGRAM

LIST OF RESEARCH THEMES

PLANT SCIENCE INSTITUTE

1. Epigenetic breeding of vegetables **- Tzahi Arazi**
2. Physical and genetic Mapping of Powdery Mildew resistance genes using *T. durum-T.dicoccoides* substitution lines - **Roi Ben-David**
3. RNA silencing suppression by geminiviruses and molecular approaches to combat them **- Yedidya Gafni**
4. Studies on the biological role of strigolactones, the new plant hormones, in plant development: genetic and physiological analysis of new mutants - **Hinanit Koltai**
5. Virus-host interactions: Elucidation of the *Tomato yellow leaf curl virus*-tomato host interactions -**Moshe Lapidot**
6. Exposing novel epigenetic variation by manipulation of the plant DNA methylome -**Amir Sherman**
7. Broadening the genetic range of white Cala lily (*Zantedeschia aethiopica*) through mutagenesis and genetic transformation **- Iris Yedidia**
8. Development of NIR (near infrared) equations for quantification of structural and biochemical components in willow (*Salix* spp.) forage - **Serge (Yan) Landau**
9. Genetics and classical breeding of aromatic plants - **Nativ Dudai**
10. Molecular parameter that control of shoot regeneration - **Moshe Reuveni**
11. Leakage of biocide materials from agricultural fields and pollutant dispersion by wind and water, to natural and urban spaces – **Eli Zaady**
12. Peroxidase mediated in planta anthocyanin degradation in plants - **Michal Oren-Shamir**
13. The control of citric acid accumulation in citrus fruit **– Avi Sadka**

14. Physiology and genetics of drought tolerance in pine trees - **Rakefet David-Schwartz**
15. Characterize thermotolerance mechanisms in tomato pollen - for improving yield under heat-stress conditions – **Nurit Firon**

SOIL, WATER & ENVIRONMENTAL SCIENCES INSTITUTE

16. Understanding mechanisms of fruit tree tolerance to salinity – **Alon Ben-Gal**
17. Biochar interactions in the rhizosphere – **Ellen Graber**
18. Rhizosphere Microbiology – **Dror Minz**
19. Assessing impact of anthropogenic activities on horizontal gene transfer of mobile antibiotic resistance genes from soil to bacterial pathogens - **Eddie Cytryn**

POSTHARVEST AND FOOD SCIENCE INSTITUTE

20. The involvement of RNases and nucleases in senescence, abscission and programmed cell death processes in plants.- **Amnon Lers**
21. Improving banana transformation and application of new transformation technologies.– **Haya Friedman**
22. Mechanism of biofilm formation by *Bacillus* species within dairy-associated environments **– Moshe Shemesh**
23. Elucidation of signaling pathways that regulate ethylene-induced leaf and flower abscission in tomato plants **- Shimon Meir**
24. Postharvest pathogen s and Pathogenicity of Colletotrichum **– Dov Prusky**
25. Can cytokinin producing bacteria improve the postharvest quality of table grapes - **Amnon Lichter**

PLANT PROTECTION INSTITUTE

26. Involvement of Honey bee viruses in the collapse of Honey bee colonies – **Nor Chejanovsky**

27. Studying the transcriptomic changes occurring during Root Knot Nematode infection of tomato - **Sigal Brown Horowitz**
28. Computational approaches for exploring the functional significance of alternative community structures of symbiotic bacteria in whiteflies - **Einat Zchori-Fein**
29. Mechanism of induced resistance to insect pests (*B. tabaci* and *P. latus*) in leafy green vegetables (lettuce, rocket, coriander) - **Phyllis Weintraub**
30. Role of strigolactones in plant defense mechanism – **Joseph Hershenhorn**
31. Deciphering protein interactions between the whitefly *Bemisia tabaci*, its secondary endosymbionts and *Tomato yellow leaf curl virus* **– Murad Ghanim**
32. Viruses in potato crops – **Victor Gaba**
33. Effectors of Egyptian broomrape against defense mechanisms of tomato plants **– Evgenia Dor**
34. Widespread involvement of phytopathogenic fungi from the *Botryosphaeria* complex in dieback and mortality of fruit trees - **Stanley Freeman**

ANIMAL SCIENCES INSTITUTE

35. Plasmids and horizontal gene transfer - **Itzhak Mizrahi**
36. Rumen Bacteria - **Itzhak Mizrahi**
37. Rumen Methanogens - **Itzhak Mizrahi**
38. Metabolic engineering - **Itzhak Mizrahi**

AGRICULTURAL ENGINEERING INSTITUTE

39. Sustainable Production in Protected Cultivation via Improved Management and Control of Microclimate - **Meir Teitel**