### Scientific Program of Systems Biology Meeting

**Sept 3**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>5 pm</td>
<td>Registration at IBB PAN, Pawinskiego 5a, Warsaw</td>
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<tr>
<td>6 pm</td>
<td>Welcome address and introductory session</td>
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<tr>
<td>6.15-7.00</td>
<td>Gene and pathway discovery in the steroidal alkaloids pathway</td>
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<td><em>Asaph Aharoni</em></td>
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<td>7 pm</td>
<td>Get-together with appetizers and wine at IBB PAS</td>
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**Sept 4**

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<th>Time</th>
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<tr>
<td>9 am</td>
<td>Morning session Chair: Rob Last</td>
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<tr>
<td>9 – 9:40</td>
<td>Evaluation and integration of functional annotation pipelines for non-model organisms: the potato genome as a test case.</td>
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<td><em>Erik Alexandersson</em></td>
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<td>9:40 – 10:20</td>
<td>Using granger causality, genome-scale metabolic modelling and mass spectrometry- based structural elucidation at the interface of primary and secondary metabolism.</td>
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<td><em>Wolfram Weckwerth</em></td>
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<td>10:20 – 10:40</td>
<td>Coffee break</td>
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<td>10:40 – 11:20</td>
<td>Genetics dissection and biochemical reconstruction of plant defensive metabolites in tomato trichomes.</td>
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<td><em>Rob Last</em></td>
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<td>11:20 – 12:00</td>
<td>Phenotypic networks in tomato fruit.</td>
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<td><em>Ali Fernie</em></td>
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<td>12 am</td>
<td>lunch at IBB PAS</td>
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<td>1 pm</td>
<td>Afternoon session – Short talks</td>
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<tr>
<td>1- 1.15</td>
<td>Connecting traits to gene functions.</td>
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<td><em>Aalt-Jan van Dijk</em></td>
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<td>1.20-1.35A</td>
<td>targeted transcriptomic approach enabled the selection of housekeeping genes for expression level normalization in the medicinal plant Catharanthus roseus.</td>
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<td><em>Teresa Martinez-Cortés</em></td>
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<td>1.40- 1.55</td>
<td>Comparative transcriptomic and metabolomic analysis of ripening tomato fruits facilitates the characterization of the genes responsible for lycoperoside metabolism.</td>
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<td><em>Samuel Bocobza</em></td>
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<td>2 – 2.15</td>
<td>The MORPH-R web and software tool for predicting missing genes in biological pathways.</td>
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<td><em>David Amar</em></td>
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<td>2.20-2.35</td>
<td>PredictProtein—an open resource for online prediction of protein structural and functional features.</td>
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<td><em>Tatyana Goldberg</em></td>
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<td>2.40-2.55</td>
<td>Dolichol vs. polyprenol — how important double bond can be?</td>
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<td><em>Adam Jozwiak</em></td>
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3-3.30 coffee break

3:30 2nd afternoon session

3.30-3.45 Biosynthesis and Evolution of Betalains in the Caryophyllales Plant Order
Guy Polturak

3.50-4.05 Proteomic analysis of the leaf vacuoles from Catharanthus roseus revealed several candidate transporters to alkaloid metabolic fluxes.
Sara Bettencourt

4.10-4.25 Boosting the synthesis of aromatic amino acids as precursors for the production of valuable polyphenol metabolites in flowers and fruits.
Moran Oliva

4.30-4.45 Investigating the role of autophagy in Arabidopsis metabolism.
Tamar Avin-Witenberg

4.50-5.05 Mutation in GGPS7 (geranylgeranyl diphosphate synthase 7) in Arabidopsis cause gibberelin deficiency in seedlings.
Malgorzata Gutkowska

5.10-5.25 L-Methionine catabolism into S-methyl thioesters in melon fruits: gene identification via a systems biology approach.
Itay Gonda

5.30-5.45 Non-Symbiotic Plant Hemoglobins in Sugar Beet.
Nelida Leiva-Eriksson

8.30 Dinner

Sept 5 9 am  Morning session Chair: Ali Fernie

9:00–9:40 Systems biology of plant signalling response to viral infection
Kristina Gruden

9:40–10:20 A systems view of regulation and messengers
Chris Ghering

10:20 – 10:40 Coffee break

10:40 – 11:20 Computational Frameworks for Studying Biological Pathways in Sequenced Plants Species
Oren Tzfadia

11:20 – 11:45 The adjustment of plant cell biology and metabolism to stresses causing senescence and energy deprivation.
Gad Gali

12 am lunch at IBB PAS

1 pm Discussion panel: "Bridging the rift between plant biologists and systems biology"
Discussants: Heribert Warzecha, Paul Fraser, Didi Amar, Erik Alexandersson, Oren Tzfadia.

3 pm Warsaw sightseeing tour (2-3h)