

Plant metabolic engineering for high value products

WorkGroup 2 Meeting

University of Porto, Portugal

February 28 -March 1, 2012

February 28

- 9.00 Wellcome and aims of the meeting
Mariana Sottomayor, IBMC/FCUP, Portugal
- 9.05 Aims and deliverables of Plant Engine
Heribert Warzecha, TU Darmstadt, Germany
- 9.20 WG1 Status quo and roadmap**
- 9.20 Update on WG1
Paul Fraser, RHU, UK
- 9.35 Isoprenoids. Status quo of pathway elucidation and metabolic engineering
Paul Fraser, RHU, UK
- 9.50 Polyphenols. Status quo of pathway elucidation and metabolic engineering
Stephan Martens, EMF, Italy
- 10.05 Benzylisoquinoline alkaloid biosynthesis – a brave new world built on a century of discovery
Peter Facchini, U Calgary, Canada
- 10.20 Biocatalytic Approaches to Industrial Plant Natural Products
Ludger Wessjohann, Leibniz IPB, Germany
- 10.35 Discussion.
- 11.00 Coffee Break**
- 11.30 WG2 Molecular Tools – North American experience in deep sequencing and metabolomics + PNP bottlenecks**
- 11.30 The plant alkaloid factory: Should we modernize or move to a new location?
Peter Facchini, University of Calgary, Canada
- 12.00 Advancing Drug Development and Chemical Production Platforms in Plants
Joe Chappell, University of Kentucky, USA
- 12.30 Discussion.
- 13.00 Lunch**
- 14.30 WG2 Molecular Tools – PNP bottlenecks**
- 14.30 Major bottlenecks of plant natural product research
Sarah O'Connor, JIC, UK
- 14.50 Molecular breeding for improvement of plant natural products
Ian A. Graham, UYork, UK
- 15.10 Major bottlenecks of PNP research and translation to industrial scale
Stefan Schillberg, Fraunhofer, Germany
- 15.30 Discussion

15.50 Coffee break

16.15 WG2 Molecular Tools – Synthetic biology/metabolic engineering tools

16.15 Reconstitution of plant natural product pathways in microorganisms

Sarah O'Connor, JIC, UK

16.30 A molecular toolbox for plant metabolic engineering: the GoldenBraid technology

Diego Orzaez, IBMCP, Spain,

16.45 A molecular toolbox for plant metabolic engineering: the GoldenGate technology

Sylvestre Marillonet, IPB, Germany

17.00 General Discussion.

17.30 WG2 Molecular Tools - Group discussions

18.30 Port wine tasting – informal regroup discussions

20.00 Dinner

March 1

9.00 WG2 Molecular Tools - Group discussions

10.30 Coffee break

11.00 WG2 Molecular Tools - Final discussion

12.30 Lunch