

THEO MURPHY INTERNATIONAL SCIENTIFIC MEETING ON **Structure and dynamics of the thylakoid membrane**

Thursday 3 – Friday 4 May 2012

Organised by Professor James Barber FRS and Professor Peter Horton FRS

DAY 1: Thursday 3 May 2012

09.55 Welcome by Royal Society

SESSION 1: Structure, mechanisms and organisation of protein complexes in thylakoids

10.00 Photosystem II structure and function: successes and challenges
Professor James Barber FRS

10.30 Discussion

10.45 Coffee

11.15 Structure, function, evolution and utilization of photosystem I
Professor Nathan Nelson

11.45 Discussion

12.00 Lipid functions in cytochrome bc complexes; an odd event in evolution
Professor William A Cramer

12.30 Discussion

12.45 LUNCH

14.00 How ATP synthase works
Professor Sir John Walker FRS

14.30 Discussion

14.45 Lateral heterogeneity of complexes
Lateral heterogeneity and the chloroplast PSII damage and repair cycle

Professor Jan Anderson FRS and Professor Anastasios Melis

15.15 Discussion

15.30 Tea

16.00 Electron cryo-tomography of membrane protein complexes in mitochondria and chloroplasts
Professor Werner Kühlbrandt

16.30 Discussion

16.45 Structure of the dimeric RC-LH1 complex from *Rhodospira rubra* studied by electron microscopy
Professor Egbert Boekema

17.15 Discussion

17.30 CLOSE

18.45 Pre-dinner drinks

19.00 DINNER

To celebrate the 80th Birthday of Professor Jan Anderson FRS

Dinner kindly supported by Agrisera

DAY 2: Friday 4 May 2012

SESSION 2: Dynamics of thylakoids: regulation, assembly and response to the environment

09.15 Optimisation of light harvesting and photoprotection - molecular mechanisms and physiological consequences

Professor Peter Horton FRS

09.45 Discussion

10.00 Role of protein kinases and phosphatases involved in the acclimation of the photosynthetic apparatus

Professor Jean-David Rochaix

10.30 Discussion

10.45 Coffee

11.15 Subunit organisation of the thylakoid protease involved in D1 degradation during Photosystem II repair

Professor Peter J Nixon

11.45 Discussion

12.00 How is Photosystem I protected against photodamage?

Professor Eva-Mari Aro

12.30 Discussion

12.45 LUNCH

SESSION 3: Responses to environmental changes

14.00 The regulatory factors for the biogenesis of thylakoid membrane protein complexes: diverse or conservative?

Professor Lixin Zhang

14.30 Discussion

14.45 The role of GOLDEN2-LIKE transcription factors in thylakoid assembly

Professor Jane Langdale

15.15 Discussion

15.30 Tea

16.00 Cellular redox homeostasis and its influence over photosynthetic gene expression

Professor Christine Foyer

16.30 Discussion

16.45 Acclimation of leaves to low light produces large grana: the origin of the predominant attractive force at work

Professor Fred Chow

17.15 Discussion

17.30 From ecophysiology to phenomics: some implications of photoprotection and shade-sun acclimation in-situ for dynamics of thylakoids in-vitro

Professor Barry Osmond FRS

18.00 Discussion

18.15 CLOSE