France-Japan PSII Workshop in Matsuyama 2017

Thursday, the 7th of December

9h30: Reception with coffee and tea

10h00-10h10: Introduction by Miwa Sugiura, Jian-Ren Shen and Alain Boussac

***10h10-12h10**: First session chaired by Miwa Sugiura*

10h10-10h40 (25+5): Miwa Sugiura
New insights in PSII functions from the study of donor side and acceptor side mutants.

10h40-11h00 (15+5): Yuki Takegawa
Effects of the ligand modification of the ChlD1 on the Photosystem II photochemistry

11h00-11h20 (15+5): Itsuki Takachi
The binding of herbicides to the different Photosystem II variants.

11h20-11h40 (15+5): Makoto Nakamura
Structural modifications of Cytb559 and their effects on its redox properties

11h40-12h10 (25+5): Alain Boussac
The S_2 to S_3 transition: a key step in the oxygen evolving mechanism + Spectroscopic characterizations of Photosystem II mutants.

12h10-13h00: Lunch
[lunch boxes will be delivered close to the meeting room]

***13h00-15h00**: Second session chaired by Rainer Hienerwadel*

13h00-13h30 (25+5): Lidia Zuccarello
Study of the different ferredoxins from *T. elongatus* and from other species and Spectro-Electrochemistry of hemoproteins with a His/Cys heme axial ligation.

13h30-14h00 (25+5): Tania Tibiletti
The low spin to high spin transition in the S_2 state: a very-far infrared study at the Synchrotron Soleil + spectroscopic studies of the V185T mutant affecting the water oxidation process.

14h00-14h30 (25+5): Yuki Kato
FTIR spectroelectrochemical study on the redox potentials of the primary quinone Q_A and the secondary quinone Q_B in Photosystem II

14h30-15h00 (25+5): Takumi Noguchi
Infrared analysis of electron transfer and water oxidation reactions in Photosystem II

15h00-15h30: Coffee break

***15h30-17h00**: Third session chaired by Alain Boussac*

15h30-16h00 (25+5): Hiroshi Isobe.
Geometric and Electronic Structures of the Mn_4CaO_5 in the Oxygen-Evolving Complex

16h00-16h30 (25+5): Rainer Hienerwadel
Study of the Mn_4-cluster in the water oxidation process in the very-far infrared domain.

16h30-17h00 (25+5): Catherine Berthomieu
Better understanding of the structure-properties relationship in engineering metal sites in proteins for the affine and selective binding of lanthanide and actinides.

17h00-17h45: General discussion

18h00: departure for dinner (Yamatoya hotel) including a traditional Noh theater presentation

[Due to our limited budget for the meeting a contribution of 2000 yens/person will be asked for the banquet]

Friday, the 8th of December

8h30: Reception with coffee and tea

***9h00-12h00**: session chaired by Jian-Ren Shen*

9h00-9h30 (25+5): Yasufumi Umena
Mn-oxidation states in PSII

9h30-9h55 (20+5): Taiki Motomura
Structure and properties of soluble proteins, a hemo-protein Tll0287 expressed when D1 is PsbA2 and the minor ferredoxin Fd2

9h55-10h20 (20+5): Yoshiki Nakajima
Structure of a PSII SQDG-deletion mutant: functional implications

10h20-10h50 (25+5): Longjiang Yu
Structure of a RC-LH1 super-complex from a purple sulfur bacterium

10h50-11h10 (15+5): Jian-Ren Shen
Structures of PSII with herbicides bound

11h10-11h40 (20+10): Keisuke Kawakami
Bond distances in the intact Mn_4CaO_5-cluster of oxygen-evolving photosystem II based on coordinate error

11h30-13h30: Lunch

***13h30-16h00**: General discussions*

-Analysis of the structure-function relationship of metalloproteins involved in photosynthesis.
-Mechanism of water oxidation.
- Structure-properties relationship of lanthanide and radionuclide binding sites in proteins for remediation.
-New projects to do in collaboration
-etc…

***16h00** : End of the meeting*