



ITALY IN JAPAN 2013

WORKSHOP

Methods for the investigation of ion transport machinery in biological Membranes

October 16th, 2013, 10:00 - 17:00

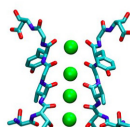
**Italian Cultural Institute
Istituto Italiano di Cultura**

2-1-30 Kudan Minami, Chiyoda-ku, Tokyo

PROGRAM

OPENING

10:00 - 10:30



- ALBERTO MENGONI, Scientific attachè at the Italian Embassy in Tokyo
Wellcome address

- FRANCO GAMBALE, Institute of Biophysics Genova
Background of the Workshop

and

Electrophysiology at the Institute of Biophysics, CNR, Italy

PLASMA MEMBRANE AND INTRACELLULAR CHANNELS/TRANSPORTERS

Chair: S. Oiki

10:30 - 12:30 - All presentations 25min + 5min Discussion

- NOBUYUKI UOZUMI, Tohoku University
Uniquely evolved plant ion channels.

- HIDETOSHI IIDA, Tokyo Gakugei University
Exploring calcium-permeable mechanosensitive channels in plants

- ARMANDO CARPANETO, Institute of Biophysics Genova
The plant vacuole as model lysosome for functional characterization of intracellular channels and transporters

- HISASHI KAWASAKI, Tokyo Denki University
L-Glutamate excretion through the NCgl1221 channel and its potential as a tool for exporter engineering

12:30 – 13:30 LUNCH BREAK

ADVANCED APPROACHES FOR MEMBRANE TRANSPORT

Chair: N. Uozumi

13:30 - 16:30 - All presentations 25min + 5min Discussion

- FABIO PICHIERRI, Tohoku University
Alkali metal ions and their membrane channels: a quantum chemical perspective
- HIROYUKI NOJI, University of Tokyo
Novel single-molecule systems to monitor the rotary dynamics and proton-pumping of FoF1-ATP synthase
- MAURO DALLA SERRA, Institute of Biophysics Trento
Punching holes into cell membranes: the amazing world of the pore-forming proteins

15:00 – 15:30 Coffee break

- SHIGETOSHI OIKI, University of Fukui
Single-molecule study for elucidating structural and functional dynamics of the KcsA Potassium Channel
- GIORGIO RISPOLI, University of Ferrara
A method to fabricate pressure polished pipettes sealing on virtually any membrane, yielding low access resistance and efficient intracellular perfusion

16:30- 17:00 CONCLUSIONS AND GENERAL DISCUSSION

- FRANCO GAMBALE, SHIGETOSHI OIKI, NOBUYUKI UOZUMI

Improving the cooperation between the National Research Council of Italy and Japanese research teams