The 5th International Symposium on Autophagy:
Molecular mechanism, cellular and physiological functions, and diseases
September 24-28, 2009
Otsu Prince Hotel, Otsu, Japan

Conference Schedule

September 24, Thursday
(15:00- On-site registration)
19:15-19:30 Opening remarks: Yasuyoshi Sakai (Kyoto University, Japan)
19:30-20:15 Plenary Lecture I: Wolf-H. Kunau (Ruhr-University of Bochum, Germany),
Peroxisome Biogenesis: Two decades of progress and surprises
20:15-21:00 Plenary Lecture II: Kazuhiro Nagata (Kyoto University, Japan), Quality
control of newly synthesized proteins in the ER
(21:00-22:00 Get-together)

September 25, Friday
(7:00-9:00 Breakfast)

Session 1 Molecular mechanism of autophagy
9:00-9:10 Yoshinori Ohsumi, Present knowledge on Atg proteins essential for
autophagosome formation
9:10-9:30 Hitoshi Nakatogawa, Analyses of Atg8–PE-containing structures involved in
autophagosome formation
<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
<th>Location</th>
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<tbody>
<tr>
<td>9:30-9:55</td>
<td>Zvulun Elazar</td>
<td>Mechanism of autophagosome biogenesis</td>
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<td>9:55-10:15</td>
<td>Wei-Pang Huang</td>
<td>Loading of selective cargo stimulates Atg9 cycling in <em>Saccharomyces cerevisiae</em></td>
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<td>(10:15-10:30) Coffee break</td>
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<td>10:30-10:50</td>
<td>Nobuo N. Noda</td>
<td>Structural basis of cargo recognition during selective autophagy</td>
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<td>10:50-11:15</td>
<td>Yasuyoshi Sakai</td>
<td>Microautophagy for organelle degradation in yeasts</td>
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<td>11:15-11:40</td>
<td>Michael Thumm</td>
<td>Molecular mechanism of micronucleophagy (piecemeal microautophagy of the nucleus, PMN) in <em>S. cerevisiae</em></td>
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<td>11:40-12:05</td>
<td>Andreas Mayer</td>
<td>Lateral heterogeneity of the vacuolar membrane during piecemeal microautophagy of the nucleus</td>
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<td>(12:00-14:00) Lunch break</td>
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<td>14:00-14:25</td>
<td>Nicholas Ktistakis</td>
<td>Early events regulating autophagosome formation</td>
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<td>14:25-14:50</td>
<td>Eeva-Liisa Eskelinen</td>
<td>Electron microscopic tomography reveals novel features in the relationship between phagophore membranes and endoplasmic reticulum</td>
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<td>14:50-15:15</td>
<td>Mitsuko Hayashi-Nishino</td>
<td>Autophagy and the endoplasmic reticulum</td>
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<td>15:15-15:40</td>
<td>Satoshi Waguri</td>
<td>The Atg8 conjugation system is indispensable for proper development of autophagic isolation membranes in mice</td>
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<td>(15:40-15:55) Coffee break</td>
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<td>15:55-16:20</td>
<td>Noboru Mizushima</td>
<td>Regulation of autophagosome formation in mammalian cells</td>
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<td>16:20-16:45</td>
<td>Sharon Tooze</td>
<td>Signaling and trafficking pathways involved in autophagosome formation</td>
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Pauline Isakson, *p62/SQSTM1, ALFY and TRAF6 interact to facilitate formation of ubiquitinated protein aggregates that become degraded by autophagy*

(17:05-18:30) Dinner served at the conference site

**Poster discussion I (for odd-numbered presentations)**

**20:00-20:25** Maria I. Colombo, *Autophagy: Rabs, SNAREs and more*

**20:25-20:45** Mitsunori Fukuda, *Atg16L1 is a potential effector for small GTPase Rab33 that modulates autophagosome formation*

**20:45-21:05** Yoshitaka Tanaka, *A small GTPase, human Rab32, is required for the formation of autophagic vacuoles under basal conditions*

**21:05-21:30** Patrice Codogno, *The dynamics of microtubules in autophagy*

**21:30-21:55** Zhang Hong, *C. elegans as a model system to study autophagy*

(22:00-23:30) Discussion hour

**September 26, Saturday**

(7:00-9:00) Breakfast

**Session 2 Regulation of organelle homeostasis by autophagy**

**9:00-9:25** Claudine Kraft, *Selective degradation of ribosomes by a ubiquitin-dependent mechanism in yeast and mammalian cells*

**9:25-9:45** Koji Okamoto, *Molecular basis of mitochondrial degradation via selective autophagy in yeast*

**9:45-10:10** Suresh Subramani, *UVRAG-like protein in Pichia pastoris*

**10:10-10:35** Yukio Fujiki, *Degradation of mammalian peroxisomes*

(10:35-10:50) Coffee break
Session 3 Cellular and physiological functions of autophagy in plants and plant infection

10:50-11:15 Nicholas J. Talbot, *Investigating infection-associated autophagy in the rice blast fungus Magnaporthe oryzae*

11:15-11:35 Yoshitaka Takano, *Atg26-mediated pexophagy is required for host invasion by the plant pathogenic fungus Colletotrichum orbiculare*

11:35-12:00 Kohki Yoshimoto, *The role of plant autophagy during nutrient starvation and in aging*

(12:00-18:30) Excursion / Lunch and dinner break

We are planning to have excursion to Uji area (Bus Tour) in this afternoon. The maximum number of participants will be 160.

Cost: 1,000 yen, including lunch box, the entrance fee for Byodoin temple, and transportation.

18:30-20:00 Poster discussion II (for even-numbered presentations)

Session 4 Cellular and physiological functions of autophagy in mammalian cells

20:00-20:20 Takashi Ueno, *Essential role of liver autophagy in maintaining blood glucose and plasma amino acids*

20:20-20:45 Ana Maria Cuervo, *Autophagic failure in aging: are lipids the ones to blame?*

20:45-21:10 John J. Lemasters, *Mitophagy during nutrient deprivation, photodamage and hepatocellular remodeling*

21:10-21:35 Zhenyu Yue, *Regulation of autophagy in the central nervous system*

21:35-21:55 Li Yu, *Autophagy termination and lysosome reformation regulated by mTOR*

(22:00-23:30) Discussion hour
### September 27, Sunday

(7:00-9:00) Breakfast

9:00-9:25 Tamotsu Yoshimori, *Tuning autophagy and heterophagy*

9:25-9:50 Beth Levine, *Molecular regulation of the autophagy function of beclin 1*

9:50-10:15 Vojo Deretic, *Regulation of autophagy by PI3P phosphatases*

(10:15-10:30) Coffee break

   Posters must be dismounted by 10:30

### Session 5 Infection, immunity, and autophagy

10:30-10:55 Ludger Klein, *Autophagy in thymic epithelium and T cell selection*

10:55-11:20 Christian Münz, *Matrix protein 2 of influenza A virus blocks autophagosome fusion with lysosomes*

11:20-11:45 Jae U. Jung, *Anti-autophagy activities induced by the viral homologs of Bcl-2 and FLIP*

11:45-12:10 Isei Tanida, *Autophagy in naïve hepatitis C virus production*

(12:10-14:00) Lunch break

14:00-14:25 Ramnik Xavier, *Building biological networks in autophagy*

14:25-14:50 Herbert W. Virgin, *Inflammatory trigger of unique autophagy gene-dependent Paneth cell defects and inflammatory bowel disease*

14:50-15:15 Grace Y. Lam, *A role for reactive oxygen species in autophagy targeting of Listeria monocytogenes*

15:15-15:40 Ichiro Nakagawa, *Autophagic defense system in innate immunity*

(15:40-15:55) Coffee break

15:55-16:20 Tatsuya Saitoh, *Regulation of innate immune response by autophagy-related protein*
16:20-16:45 Shoichiro Kurata, Induction of autophagy via intracellular innate immune recognition in Drosophila

16:45-17:05 Gian Maria Fimia, The dynamic interaction of Ambra1 with the dynein motor complex regulates mammalian autophagy

(18:00 - 21:00 Banquet)

September 28, Monday

(7:00-9:00 Breakfast)

Session 6 Diseases and drugs related to autophagy

9:00-9:25 David C. Rubinsztein, Autophagic clearance of aggregate-prone proteins: relevance for disease pathogenesis and therapeutic strategies

9:25-9:50 William A. Dunn Jr., Identification of compounds that enhance and suppress autophagy

9:50-10:15 Masaaki Komatsu, Important roles of the autophagy-specific substrate p62 in environmental stress response

10:15-10:40 Ralph A. Nixon, Autophagy failure in Alzheimer disease: genetic factors and pathological consequences

(10:40-10:55 Coffee break)

10:55-11:15 Hirotaka Watada, Autophagy in pancreatic beta cells: a novel mechanism regulating beta-cell function and mass

11:15-11:40 Yasuo Uchiyama, Cell death and autophagy

11:40-12:00 Noriyuki Matsuda, Parkin is retrieved from the cytoplasm to depolarized mitochondria, and triggers its degradation

12:00- Concluding remarks