# PROGRAM ER & REDOX CLUB MEETING 15-17 APRIL 2015 VENICE

## APRIL 15th

### 14:00 - 14:20
**WELCOME & OPENING ADDRESS**

### 14:20 - 15:40
**SESSION 1: ENTER THE ER**

- **14:20 - 14:40**
  - Till Ast (M. Schuldiner)
  - Sören Schorr
  - Matteo Fossati (N. Borgese)
  - Luca Scorzano
  - **Chair:** Ester Zito
  - *Forget the plunger - Unclogging the translocon*
  - *Co-chaperone specificity in gating of the polytopic conducting channel in the membrane of the human ER*
  - *A positive signal restrains rabe-dependent recycling of membrane proteins in the early secretory pathway*
  - *Why do we have the ER? A mitochondrial answer*

### 15:40 - 16:00
**Coffee break**

### 16:00 - 17:20
**SESSION 2: ER CHAPERONES**

- **16:00 - 16:20**
  - Matthias Feige
  - Helene Safavi-Hemami (L. Elggaard)
  - Naomi Loder (J. Braekman)
  - Alessandro Bosetti (Promega)
  - **Chair:** Roberto Sita
  - *The sequence-based quality control code of the Hsp70 chaperone system in the endoplasmic reticulum*
  - *BAP, an atypical NEF for BIP*
  - *Characterising the function of pERp1*
  - *Interrogating protein dynamics within living cells using protein-based reporters derived from Nanoluc Luciferase*

### 17:20 - 17:45
**Aperitivo**

### 17:45 - 18:30
**1st POSTER ADVERTS SESSION**

- **Chair:** Eelco van Anken

### 18:30 - 20:00
**Dinner**

### 20:00 - 22:00
**1st POSTER SESSION**

## APRIL 16th

### 7:30 - 9:00
**Breakfast**

### 9:00 - 10:20
**SESSION 3: PDI FAMILY**

- **9:00 - 9:20**
  - William Remelli (A. Cerotti)
  - Giorgia Brambilla Pisoni (M. Molinari)
  - Tiziana Anelli (R. Sita)
  - **Chair:** Neil Bulleid
  - *Characterization of recombinant AtPDI1S-1, the smallest putative PDI-like protein of Arabidopsis thaliana*
  - *Division of labor between oxidoreductases: TMX1 preferentially acts upon membrane-bound polypeptides*
  - *Proteostasis and redoxstress in the secretory pathway: tales of tails from Erp44 and immunoglobulins*

### 10:20 - 10:40
**Coffee break**

### 10:40 - 12:00
**SESSION 4: DISULFIDE BOND FORMATION**

- **10:40 - 11:00**
  - Lei Wang (C. Wang)
  - Philip Robinson (N. Bulleid)
  - Lloyd Ruddock
  - **Chair:** Aldo Ceretti
  - *Interplay between Ero1 and PDI on oxidative protein folding in the endoplasmic reticulum*
  - *Protein structure and disulfide formation following nascent chain exposure to the ER lumen*
  - *Applications of disulfide bond formation in the cytoplasm*

### 12:30 - 14:00
**Lunch**

### 14:00 - 15:40
**SESSION 5: UNFOLDED PROTEIN RESPONSE**

- **14:00 - 14:20**
  - Florentina Pena
  - Andrea Orsi (E. van Anken)
  - David Ron
  - **Chair:** Luca Rampoldi
  - *The endoplasmic reticulum under hypertoxic stress*
  - *ATF6 and ERAD are key for transitioning from acute to chronic ER stress responses*
  - *Further molecular insight into the working of the Integrated Stress Response, ISR*

### 15:40 - 16:00
**Coffee break**

### 16:00 - 17:20
**SESSION 6: ER-STASIS IN HEALTH & DISEASE**

- **16:00 - 16:20**
  - Carmine Settiore
  - Vera Volpi (M. D’Antonio)
  - Ester Zito
  - **Chair:** David Ron
  - *Self eating during vertebrate development*
  - *The role of the ERAD pathway in the physiology and disease of peripheral myelinlation*
  - *ER-localized selenoprotein SEPN1, linked to skeletal muscle pathology, redox-regulates SERCA2 pump activity*

### 17:20 - 17:45
**Aperitivo**

### 17:45 - 18:30
**2nd POSTER ADVERTS SESSION**

- **Chair:** Johannes Buchner

### 18:30 - 20:00
**Dinner**

### 20:00 - 22:00
**2nd POSTER SESSION**

### 22:00 - 23:30
**OPTIONAL: trip "Venice by night" to Piazza San Marco & Basilica**

## APRIL 17th

### 7:30 - 9:00
**Breakfast**

### 9:00 - 10:20
**SESSION 7: ER-ASSOCIATED DEGRADATION**

- **9:00 - 9:20**
  - Ryo Ushioda (K. Nagata)
  - Renji Inada
  - Federica Lari (J. Christianson)
  - Anette Köhler (T. Sommer)
  - **Chair:** Maurizio D’Antonio
  - *ERdj5-mediated ER homeostatic mechanism*
  - *Dual conformations of ERdj5 play a significant role in acceleration of the ER associated degradation*
  - *UPREgulating ERAD: role of ER-membrane ubiquitin ligases in ER homeostasis*
  - *The role of the mannosidase Hmslp in glycoprotein ERAD*

### 10:20 - 10:40
**Coffee break**

### 10:40 - 12:15
**SESSION 8: ER-ASSOCIATED DEGRADATION**

- **10:40 - 11:00**
  - Stephen High
  - Marius K. Lemberg
  - Ludger Johannes
  - **Chair:** Maurizio Molinari
  - *Small glutamine-rich tetratricopeptide repeat-containing protein alpha (SGTA), saint or sinner?*
  - *Sampling the membrane function of intramembrane proteases in ER protein homeostasis*
  - *Identification of cellular targets of Retro-2 that are required for retrograde toxin trafficking*

### 11:40 - 12:15
**CLOSING REMARKS**

- **Chair:** Ineke Braakman

- *Awards, Evaluation & Election new organizers*

### 15:00 - 18:00
**OPTIONAL: "boat trip through the lagoon"**
POSTER PRESENTATIONS

APRIL 15th

Anush Bakunts (E. van Arken) A double-edged sword: use of the APEX-tag for assessing changes in the morphology & proteome of the ER

Nina Bergbold (M.K. Lemberg) The ERAD rhomboid protease RHBDL4 interacts with the ERAD machinery to modulate IP3R abundance

Stefano Bertetti (R. Sitas) Regulation of H2O2 membrane transport during cell stress

Anna Paula Cassaza (A. Ceriotti) Preliminary characterization of APODILS-1

Fiona Chalmers (N. Buileid) Increasing the capacity of the ER to fold antibodies by manipulation of stress response pathways

Anna Chatsivili (M.K. Lemberg) rERAD: how important for folding is the most abundant oxidoreductase of the ER?

Ruming Chen (D. Roni) G-actin provides substrate-specificity to eukaryotic initiation factor 2a holophosphatases

Mari Chiritoiu (S.M. Petrescu) The intrinsically disordered domain of EDEM1 is key for association with its clients

Alberto Danieli (E. van Arken) A novel approach for correlative light and electron microscopy: the dark side of the µ

Emma Fenech (J. Christianson) Constructing the ER E3 ubiquitin ligase interaction network

Sefi Geva (M. Schuldiner) A systematic screen uncovers a novel cargo receptor

Christine John (J. Buchner) Analysis of the interactions of variable antibody domains

Shingo Kanemura (K. Inaba) A newly identified disulphide bond in regulation of human Erz2a

Raffaella Magnoni (L. Eliagaard) FIDC is a new unfolded protein response target involved in BiP AMPylation

Cristina Scapin (M. D’Antonio) Translational attenuation via eIF2α-phosphorylation is protective in a PDS63del-CMT1B neuropathic mouse model

APRIL 16th

Mariani Marino (E. Zito) Functional interplay between SEPN1 and ascorbic acid

Kitty McCaffrey (L. Braakman) The ER and inflammation

Daniel Mesquita da Fonseca (E. van Arken) CFTR NBD1 folding requires Hup90

Déborah Noile (L. Scorrano) Mitofusin 2 is alternatively spliced in ER specific variants that control ER-mitochondria tethering and ER shape

Masaki Okumura (K. Inaba) Real-time monitoring of PDI-catalyzed oxidative protein folding by high-speed atomic force microscopy

Dániel Palašić (J. Buchner) The tail piece dictates the oligomerization of IgM in vitro and in vivo

Riccardo Ronconi (A. Frá) Aberrant disulphide interactions contribute to the secretory deficiency of Alpha 1-Antitrypsin mutants

Sara Sannino (R. Sitas) Dual regulation of Elp4A in the early secretory pathway

Céline Schaefher (L. Rampoldi) Identification and characterization of cellular pathways activated or dysregulated by mutant uromodulin expression

Emile Schreper (L. Scorrano) Dissecting Mitofusin 2 interactions at the ER-mitochondria interface

Chloé Stoyle (N. Buileid) Antibody assembly and secretion in CHO cells

Christina Stutzer (J. Buchner) Characterization of the surrogate light chain

Milena Vitale (E. van Arken) Dynamics of endoplasmic reticulum stress responses to sudden and persistent proteostatic challenges

Laura Tade (E. van Arken) Homeostatic readjustment of the endoplasmic reticulum under chronic stress

Utri Weill (M. Schuldiner) Swap-N-Tag: a new tool for systematic characterization of yeast proteins

Cristina Scapin (ERSD) Endoplasmic Reticulum Stress in Diseases, a new journal focusing on the connection between ER stress & disease

PARTICIPATING GROUPS

Tomás Aragón | Centro de Investigación Médica Aplicada | Pamplona | Spain
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* Not personally present; representatives from their groups are