Biochemical Society Focused Meetings

Third Intracellular Proteolysis Meeting
Auditorio de Tenerife, Santa Cruz de Tenerife, Canary Islands, Spain, 5–7 March 2008

Edited by Rosa Farrás (Centro de Investigación Príncipe Felipe, Valencia, Spain), Gemma Marfany (Barcelona, Spain), Manuel Rodríguez (CICbioGUNE, Derio, Spain), Eduardo Salido (La Laguna, Tenerife, Spain) and Dimitris Xirodimas (Dundee, U.K.).

Much to know about proteolysis: intricate proteolytic machineries compromise essential cellular functions
Gemma Marfany, Rosa Farrás, Eduardo Salido, Dimitris Xirodimas and Manuel S. Rodríguez
781–785

Life, death and burial: multifaceted impact of autophagy
Lorenzo Galluzzi, Eugenia Morselli, José Miguel Vicencio, Oliver Kepp, Nicholas Joza, Nicolas Tajedidine and Guido Kroemer
786–790

Versatile role of the yeast ubiquitin ligase Rsp5p in intracellular trafficking
Naima Belgareh-Touzé, Sébastien Léon, Zoi Erpapazoglou, Marta Stawiecka-Mirotá, Daniele Urban-Grimal and Rosine Haguenauer-Tsapis
791–796

Ubiquitin ligase E6-AP and its role in human disease
Konstantin Matentzoglu and Martin Scheffner
797–801

Novel substrates and functions for the ubiquitin-like molecule NEDD8
Dimitris P. Xirodimas
802–806

Chaperone-driven proteasome assembly
Rina Rosenzweig and Michael H. Glickman
807–812

Selected oral communications

How autophagy is related to programmed cell death during the development of the nervous system
Patricia Boya, María Angeles Mellén and Enrique J. de la Rosa
813–817

Regulation of ER-associated degradation via p97/VCP-interacting motif
Petek Ballar and Shengyun Fang
818–822

Efficient approaches for characterizing ubiquitinated proteins
Roland Hjerpe and Manuel S. Rodríguez
823–827

Strategies for the identification of novel inhibitors of deubiquitinating enzymes
Seth J. Goldenberg, Jeffrey L. McDermott, Tauseef R. Butt, Michael R. Mattern and Benjamin Nicholson
828–832

To ubiquitate or to deubiquitate: it all depends on the partners
Gemma Marfany and Amanda Denuc
833–838

Is there an alternative to the proteasome in cytosolic protein degradation?
Luis C. Antón and Eugenia M. Villasevil
839–842

Do F-box proteins with a C-terminal domain homologous with the tobacco lectin play a role in protein degradation in plants?
Nausicaa Lannoo, Willy J. Peumans and Els J.M. Van Damme
843–847
S-adenosylmethionine and proliferation: new pathways, new targets
Nuria Martínez-López, Marta Varela-Rey, Usue Ariz, Nieves Embade, Mercedes Vazquez-Chantada, David Fernandez-Ramos, Laura Gomez-Santos, Shelly C. Lu, Jose M. Mato and Maria L. Martinez-Chantar 848–852

Innate link between NF-κB activity and ubiquitin-like modifiers
Valérie Lang and Manuel S. Rodríguez 853–857

Fos family protein degradation by the proteasome
Tiphanie Gomard, Isabelle Jariel-Encontre, Jihane Basbous, Guillaume Bossis, Gabriel Mocquet-Torcy and Marc Piechaczyk 858–863

Regulation and function of JunB in cell proliferation
Marc Piechaczyk and Rosa Farràs 864–867

Functional analysis of the SUMOylation pathway in Drosophila
Ana Talamillo, Jonatan Sánchez and Rosa Barrio 868–873

SUMO under stress
Denis Tempé, Marc Piechaczyk and Guillaume Bossis 874–878

Remodelling of the ubiquitin–proteasome system in response to interferons
Ulrike Seifert and Elke Krüger 879–884

Molecular Mechanisms of Glucolipotoxicity in Diabetes
University College Dublin, Ireland, 25–26 March 2008
Edited by Tony Corfield (Bristol, U.K.), Mark Holness (Barts and the London School of Medicine and Dentistry, U.K.) and Philip Newsholme (University College Dublin, Ireland).

Lipases in the pancreatic β-cell: implications for insulin secretion
Malin Fex and Hindrik Mulder 885–890

Role of nuclear receptors in the modulation of insulin secretion in lipid-induced insulin resistance
Mary C. Sugden and Mark J. Holness 891–900

Glucolipotoxicity of the pancreatic β-cell: myth or reality?
Vincent Poitout 901–904

The cytoprotective actions of long-chain mono-unsaturated fatty acids in pancreatic β-cells
Noel G. Morgan, Shalinee Dhayal, Eleftheria Diakogiannaki and Hannah J. Welters 905–908

An update on lipotoxic endoplasmic reticulum stress in pancreatic β-cells
Miriam Cnop, Mariana Igoillo-Esteve, Daniel A. Cunha, Laurence Ladrière and Décio L. Eizirik 909–915

The diverse roles of protein kinase C in pancreatic β-cell function
Trevor J. Biden, Carsten Schmitz-Peiffer, James G. Burchfield, Ebru Gurusik, James Cantley, Christopher J. Mitchell and Lee Carpenter 916–919

NOX family NADPH oxidases in liver and in pancreatic islets: a role in the metabolic syndrome and diabetes?
The sensitivity of pancreatic $\beta$-cells to mitochondrial injuries triggered by lipotoxicity and oxidative stress
Ning Li, Francesca Frigerio and Pierre Maechler 930–934

Adipose tissue expandability: the metabolic problems of obesity may arise from the inability to become more obese
Chong Yew Tan and Antonio Vidal-Puig 935–940

Regulation and consequences of differential gene expression in diabetic kidney disease
Madeline Murphy, John Crean, Derek P. Brazil, Denise Sadlier, Finian Martin and Catherine Godson 941–945

Molecular mechanisms of proteinuria in diabetes
Luigi Gnudi 946–949

The long-chain fatty acid receptor, GPR40, and glucolipotoxicity: investigations using GPR40-knockout mice
Ruth Brownlie, Rachel M. Mayers, Jackie A. Pierce, Anna E. Marley and David M. Smith 950–954

Selected oral communications

Saturated and unsaturated (including arachidonic acid) non-esterified fatty acid modulation of insulin secretion from pancreatic $\beta$-cells
Deirdre Keane and Philip Newsholme 955–958

Differential regulation of the ER stress response by long-chain fatty acids in the pancreatic $\beta$-cell
Eleftheria Diakogiannaki and Noel G. Morgan 959–962

Lack of TXNIP protects $\beta$-cells against glucotoxicity
Anath Shalev 963–965

Integration of Structures, Spectroscopies and Mechanisms
University of Edinburgh, U.K., 2–4 April 2008

Organized by Ulrich Brandt (Frankfurt, Germany), Steve Chapman (Edinburgh, U.K.), Peter Heathcoate (Queen Mary, University of London, U.K.), John Ingledeow (St Andrews, U.K.), Mike Jones (Bristol, U.K.), Bernd Ludwig (Frankfurt, Germany), Fraser MacMillan (University of East Anglia, Norwich, U.K.), Hartmut Michel (Max-Planck-Institute for Biophysics, Frankfurt am Main, Germany), Peter Rich (University College London, U.K.) and John Walker (MRC Dunn Human Nutrition Unit, Cambridge, U.K.). Edited by Ulrich Brandt and Peter Rich.

Significance of protein crowding, order and mobility for photosynthetic membrane functions
Helmut Kirchhoff 967–970

Nucleotide-induced conformational changes in the Escherichia coli NADH:ubiquinone oxidoreductase (complex I)
Thomas Pohl, Daniel Schneider, Ruth Hielscher, Stefan Stolpe, Katerina Dörner, Markus Kohlstäd, Bettina Böttcher, Petra Hellwig and Thorsten Friedrich 971–975

The production of reactive oxygen species by complex I
Judy Hirst, Martin S. King and Kenneth R. Pryde 976–980
A structural analysis of the transient interaction between the cytochrome bc\textsubscript{1} complex and its substrate cytochrome c

Ajeeta Nyola and Carola Hunte 981–985

Bioenergetics at the gold surface: SEIRAS probes photosynthetic and respiratory reactions at the monolayer level

Kenichi Ataka and Joachim Heberle 986–991

*Rhodobacter sphaeroides* haem protein: a novel cytochrome with nitric oxide dioxygenase activity

Bor-Ran Li, J.L. Ross Anderson, Christopher G. Mowat, Caroline S. Miles, Graeme A. Reid and Stephen K. Chapman 992–995

Electroneutral and electrogenic catalysis by dihaem-containing succinate:quinone oxidoreductases

C. Roy D. Lancaster, Elena Herzog, Hanno D. Juhnke, M. Gregor Madej, Florian G. Müller, Rajsekhar Paul and Philipp G. Schleidt 996–1000

\textsuperscript{55}Mn-ENDOR of the S\textsubscript{2}-state multiline signal of Photosystem II from *Thermosynechococcus elongatus*

Susanne Pudolke, Friedhelm Lendzian and Robert Bittl 1001–1004

The role of multihaeam cytochromes in the respiration of nitrite in *Escherichia coli* and Fe(III) in *Shewanella oneidensis*

Thomas A. Clarke, Tracey Holley, Robert S. Hartshorne, Jim K. Fredrickson, John M. Zachara, Liang Shi and David J. Richardson 1005–1010

Quinone-reactive proteins devoid of haem b form widespread membrane-bound electron transport modules in bacterial respiration

Jörg Simon and Melanie Kern 1011–1016

Quantum dots for single-pair fluorescence resonance energy transfer in membrane-integrated *E_{F_{1}}*

Eva Galvez, Monika Düser, Michael Börsch, Jörg Wrachtrup and Peter Gräber 1017–1021

Further insights into the structure of the alternative oxidase: from plants to parasites

Anthony L. Moore and Mary S. Albury 1022–1026

Structural organization of the V-ATPase and its implications for regulatory assembly and disassembly

Meikel Diepholz, Michael Börsch and Bettina Böttcher 1027–1031

**Selected oral communication**

*Are Escherichia coli* OXPHOS complexes concentrated in specialized zones within the plasma membrane?

Tchern Lenn, Mark C. Leake and Conrad W. Mullineaux 1032–1036

**Bioanalysis in Oxidative Stress**

University of Exeter, U.K., 2–3 April 2008

Edited by John Moody (Plymouth, U.K.) and Paul Winyard (Peninsula Medical School, Exeter, U.K.).

High-resolution mass spectrometry analysis of protein oxidations and resultant loss of function

Stephen Barnes, Erin M. Shonsey, Shannon M. Eliuk, David Stella, Kerri Barrett, Om P. Srivastava, Helen Kim and Matthew B. Renfrow 1037–1044
Dicarbonyls linked to damage in the powerhouse: glycation of mitochondrial proteins and oxidative stress

Naila Rabbani and Paul J. Thornalley

Mass spectrometry to detect the site specificity of advanced glycation/oxidation end-product formation on protein: some challenges and solutions

Jennifer M. Ames

Analysis of eicosanoids and related lipid mediators using mass spectrometry

Benjamin H. Maskrey and Valerie B. O'Donnell

Key issues in F2-isoprostane analysis

Jaffar Nourooz-Zadeh

Mass spectrometry approaches for vitamin E research

John K. Lodge

Biomarkers of oxidative damage to DNA and repair

Steffen Loft, Pernille Høgh Danielsen, Lone Mikkelsen, Lotte Risom, Lykke Forchhammer and Peter Møller

Mass spectrometric analysis of HOCl- and free-radical-induced damage to lipids and proteins

Andrew R. Pitt and Corinne M. Spickett

Independent Meeting

British Yeast Group Meeting 2008
National University of Ireland Maynooth, Maynooth, Co. Kildare, Ireland, 18–20 March 2008

Edited by Gary Jones (National University of Ireland Maynooth, Ireland).

Cellular factors important for the de novo formation of yeast prions

Mick Tuite, Klement Stojanovski, Frederique Ness, Gloria Merritt and Nadejda Koloteva-Levine

Post-transcriptional regulation of gene expression in response to iron deficiency: co-ordinated metabolic reprogramming by yeast mRNA-binding proteins

Sandra V. Vergara and Dennis J. Thiele

Next-generation sequencing: applications beyond genomes

Samuel Marguerat, Brian T. Wilhelm and Jürg Bähler

The spindle pole body plays a key role in controlling mitotic commitment in the fission yeast Schizosaccharomyces pombe

Iain M. Hagan