Poster Abstracts (continued)

Blue Light Effects, Photochemistry, Luciferase

I01	**Class II DNA photolyase from *Arabidopsis thaliana* contains FAD as cofactor**	Oliver Kleiner, Jens Butenandt, Thomas Carell and Alfred Batschauer
I02	**Occurrence of P-flavin binding protein in *Vibrio fischerii* and properties of the protein**	Sabu Kasai
I03	**Modelling the intermediate IV of the luciferase reaction: characterisation of the complex of 5-decylFMN-4a-OH with *Vibrio harveyi* luciferase**	Benfang Lei, Qizhu Ding and Shiao-Chun Tu
I04	**In DNA photolyase from *Anacystis nidulans* primary electron transfer from tryptophan to $FADH^+$ is followed by oxidation of a tyrosine residue**	Corinne Aubert, Paul Mathis, André P. M. Eker and Klaus Brettel
I05	**DCRY: A *Drosophila* photoreceptor protein implicated in light entrainment of circadian rhythm**	Tomoko Ishiwaka, Akira Matsumoto, Teiichi Tanimura, Shin Togashi, Ryu Ueda and Takeshi Todo
I06	**Isolation and characterization of DNA photolyase/cytochrome family in Zebra fish**	Yuri Kobayashi, Tomoko Ishikawa and Takeshi Todo

Flavoproteins, 3D Structures

J01	**Crystal structures of „unactivated" p-hydroxybenzoate hydroxylase**	Michel H. M. Eppink, Willem J. H. van Berkel, Alex Tepliakov and Herman A. Schreuder
J02	**Crystallographic studies of a complex between the ferredoxin-$NADP^+$-reductase from the cyanobacterium *Anabaena* PCC7119 and its functional partner**	Renaud Morales, Galina Kachalova, Marie-Hélène Charon and Michael Frey
J03	**X-Ray structure of a monomeric α subunit of the sulfite reductase from *E. coli***	A. Gruez, D. Pignol, J. L. Ferrer, M. Zeghouf, J. Coves, M. Fontecave and J.-C. Fontecilla-Camps
J04	**NMR-studies on FMN-binding protein from *Desulfovibrio vulgaris* (Miyazaki F)**	Masaya Kitamura, Hideo Inoue, Edwards Liepinsh and Gottfried Otting
J05	**Crystal structures of the tetraheme flavoprotein enzyme fumarate reductase from *Shewanella putrefaciens* strain MR1**	David Leys, Alexandre Tsapin, Terrance E. Meyer, Michael A. Cusanovich, Yves Guisez Jozef J. Van Beeumen
J06	**Crystallographic analysis of C44S NADH oxidase from the human pathogen *Streptococcus pyogenes***	T. Conn Mallett, Hiroaki Sakai, Derek Parsonage, Al Claiborne and Tomitake Tsukihara
J07	**A model of the structure of 6-hydroxy-D-nicotine oxidase**	William S. McIntyre, Igor Efimov, Louise M. Cunane and Scott Mathews

J08	**Crystal structure of the flavin reductase Fre from *Escherichia coli***	Margareta Ingelman, S. Ramaswamy, Vincent Nivière, Marc Fontecave and Hans Eklund
J09	**Towards the structure of a soluble fumarate reductase**	Sara L. Pealing, Paul Taylor, Graeme A. Reid, Stephen K. Chapman and Malcolm D. Walkinshaw
J10	**Characterization of two *E. coli* methylenetetrahydrofolate reductase (MTHFR) mutants, Asp120Asn and Glu28Gln**	Elizabeth E. Trimmer, Brian D. Guenther, Martha L. Ludwig and Rowena Matthews
J11	**Characterization of glutathione amide reductase from the purple bacterium, *Chromatium gracile***	Bjorn Vergauwen, Vesna Kostanjevecki, Yves Guissez and Robert Bartsch
J12	**Domain structure and kinetic analysis of streptococcal L-α-glycerophosphate oxidase**	Véronique Charrier, James Luba, Derek Parsonage and Al Claiborne
J13	**Refined 2.1 Å structure of the cysteine-sulfenic acid redox center in NADH peroxidase**	Joanne I. Yeh, T. Conn Mallett, Edward J. Crane III, Derek Parsonage, Wim G. J. Hol and Al Claiborne
J14	**Crystal structure of polyamine oxidase from *Zea mays* L. at 1.9 Å resolution**	Claudia Binda, Alessandro Coda, Riccardo Angelini, Rodolfo Federico, Paolo Ascenzi and Andrea Mattevi
J15	**A new functional model for the *Escherichia coli* sulfite reductase: the α1β1 complex**	Jaques Coves, Mahel Zeghouf and Marc Fontecave

Monooxygenases

K01	**Is charge transfer complex formation essential for reduction of *p*-hydroxybenzoate hydroxylase?**	Barrie Entsch, Mariliz Ortiz-Maldonado and David P. Ballou
K02	**Catalytic mechanism of 2-hydroxybiphenyl 3-monooxygenase**	Winfried A. Suske, Hans-Peter Kohler and Willwm J. H. van Berkel
K03	**Purification and some properties of acetophenone monooxygenase**	Mariëlle J. H. Moonen, Ivonne M. C. M. Rietjens and Willem J. H. van Berkel
K04	**Effect of Substrate and Flavin Activation on the Hydroxylation Reaction of *p*-Hydroxybenzoate Hydroxylase: Studies of Site Directed Mutants Substituted with 8-Cl-FAD**	Mariliz Ortiz-Maldonado, David P. Ballou and Vincent Massey
K05	**Heterologous Expression and Kinetic Characterization of Human Squalene Monooxygenase**	Brian P. Laden and Todd D. Porter
K06	**Novel two-component phenol hydroxylase from a thermophilic *Bacillus* strain**	Ulrike Kirchner, Willem J. H. van Berkel and Rudolf Müller
K07	**Development of biocatalyst for acetophenone monooxygenase catalyzed reactions: kinetic and mechanistic characterization of the enzyme and improvement of the biocatalyst**	N. M. Kamerbeek and D. B. Janssen

K08	**Coenzyme recognition by flavoprotein aromatic hydroxylases**	Willem J. H. van Berkel, Michel Eppink and Herman Schreuder

Flavins and Oxygen, Various

L01	**Kinetics, mechanism and regulation of elementary steps of catalysis of pyruvate oxidase from *Lactobacillus plantarum***	Kai Tittmann, Ralph Golbik, Sandro Ghisla and Gerhard Hübner
L02	**Studies on the peroxide- reducing system of *Thermus aquaticus*.**	Catriona Logan and Stephen G. Mayhew
L03	**Overproduction of *Lactococcus lactis* NADH oxidase and its application to metabolic engineering**	Derek Parsonage, Michiel Kleerebezem, Iris I. van Swam and Al Claiborne
L04	**Converting a dehydrogenase into an oxidase**	Graeme A. Reid, Stephen K. Chapman, Lars Østergaard and Martin L. Goble
L05	**What protein features make p-hydroxybenzoate hydroxylase react rapidly with oxygen?**	Willem van Berkel, Michel Eppink, Herman Schreuder, Mariliz Ortiz-Maldonado, David Ballou and Barrie Entsch
L06	**The intermediates involved in the catalytic reaction of cyclohexanone monooxygenase**	Dawei Sheng, David P. Ballou and Vincent Massey

Amine Dehydrogenation

M01	**Substrate inhibition in trimethylamine dehydrogenase**	Peter Roberts, Jaswir Basran, Emma K. Wilson, Russ Hille and Nigel S. Scrutton
M02	**Bacterial amine oxidation through horizontal gene transfer from an eukaryotic source**	Susann Schenk and Karl Decker
M03	**A novel heterotrimeric flavoprotein involved in bacterial nicotine catabolism**	Susann Schenk, André Hoelz and Karl Decker
M04	**High level expression and characterization of recombinant human liver MAO B**	Paige Newton-Vinson and Dale E. Edmondson
M05	**A mechanism for monoamine oxidase involving a redox-active disulfide**	Rona R. Ramsay
M06	**Involvement of mitochondrial matrix in the holoenzyme formation of dimethylglycine dehydrogenase**	Carmen Brizio, Annegret Otto, Ernesto Quagliariello, Roderich Brandsch, Salvatore Passarella and Maria Barile
M07	**Hydrogen tunnelling in amine dehydrogenases from methylotrophic bacteria**	Jaswir Basran, Peter Roberts, Michael J. Sutcliffe and Nigel S. Scrutton
M08	**Investigating the mechanism of C-H bond breakage in heterotetrameric sarcosine oxidase from *Arthrobacter* sp. 1-IN**	Richard J. Harris, Rolandas Meskys, Michael Sutcliffe and Nigel S. Scrutton

M09 **The reductive half-reaction of trimethylamine dehydrogenase with trimethylglutamine** — Mei-Huei Jang, Jaswir Basran, Nigel S. Scrutton and Russ Hille

M10 **Interaction of FAD analogues with the C406A mutant apoenzyme of human liver monoamine oxidase A** — Ravi K. Nandigama and Dale E. Edmondson

α-*Hydroxy Acid Dehydrogenases*

N01 **X-ray studies of recombinant rat kidney long-chain hydroxy acid oxidase and of the recombinant flavin-binding domain of bakers yeast flavocytochrome b_2** — Louise Cunane, Fraser Welsh, John Barton, Zhi-wei Chen, Ahmed Belmouden, K. H. Diêp Lê, Florence Lederer, Steve Chapman, Graeme Reid and F. Scott Mathews

N02 **On the mechanistic value of the dehydrohalogenation reaction of β-halogeno hydroxy acids catalysed by FMN-dependent hydroxy acid-oxidising enzymes: a mutational analysis with flavocytochrome b_2** — Sabrina Bodevin and Florence Lederer

N03 **D-lactate dehydrogenase model: mechanism of the oxidation of mandelic acids by functionalized flavin mimics with metal ions** — Hideaki Ohshiro, Shin-ichi Kondo and Yumihiko Yano

N04 **(S)-mandelate dehydrogenase from *Pseudomonas putida*: mechanistic roles of the conserved residues H274 and R277** — Isabelle E. Lehoux and Bharati Mitra

N05 **On the role of Asp 180 in L-lactate monooxygenase** — Stephen A. Sanders, Ute Müh, Charles H. Williams Jr. and Vincent Massey

N06 **On the mechanism of glucose oxidase** — Ben J. L. Williams and Stephen E. J. Rigby

N07 **Reaction mechanism of L-lactate oxidase from *Aerococcus viridans*** — Kazuko Yorita, Toshiyuki Watanabe, Hideo Misaki and Vincent Massey

N08 **The substrate specificity of L-mandelate dehydrogenase** — Douglas J. Robertson, Graeme A. Reid and Stephen K. Chapman

N09 **The membrane-associated (S)-mandelate dehydrogenase from *Pseudomonas putida*: characterization of a highly active, soluble mutant** — Yang Xu and Bharati Mitra

Acyl-CoA Dehydrogenases

O01 **Mechanism-based inactivation of medium-chain Acyl-CoA dehydrogenase by a cytotoxic thioester: bioactivation of 5,6-dichloro-4-thia-5-hexenoyl-CoA** — Jennifer F. Baker-Malcom, M. W. Anders and Colin Thorpe

O02 **Synthesis and activity of substrate analogs for glutaryl-CoA dehydrogenase** — Shannon L. McKinney, Carrie L. Donley, Gregory K. Sewall, Patricia L. Kultgen and Colleen M. Byron

O03 **Difference raman studies of hexadienoyl-CoA bound to medium chain acyl CoA dehydrogenase** — Alasdair F. Bell, Jiaquan Wu, Kim M. Sabaj, Avery W. Stephens, Marian T. Stankovich and Peter J. Tonge

O04	**Redox potential measurements of short chain acyl-CoA dehydrogenase (SCAD) active site mutants**	Jackson D. Pellett, Donald F. Becker, James A. Fuchs and Marian T. Stankovich
O05	**Interactions of rat acyl-CoA oxidase with substrate analogs used as active-site probes**	Haruhiko Tamaoki, Chiaki Setoyama, Kyosuke Sato, Yasuzo Nishina, Kiyoshi Shiga and Retsu Miura
O06	**Biochemical characteristics of recombinant human isovaleryl-CoA dehydrogenase pre-treated with ethylenediaminetetraacetate**	Al-Walid A. Mohsen and Jerry Vockley
O07	**Probing the mechanism of medium chain acyl-CoA dehydrogenase (MCAD) using spectrally active alternative-substrates and products**	Teresa R. Lamm and Marian Stankovich
O08	**Substrate chain length specificity of acyl-CoA dehydrogenases: studies on different mutants**	Burkhard Küchler, Andy Nandy, Abdel Ghany and Sandro Ghisla
O09	**Probing the active site of the medium chain acyl-CoA dehydrogenase: 4-OH-cinnamoyl-CoA as a sensitive probe of polarization and ionization**	Irina Rudik, Alasdair Bell, Peter Tonge and Colin Thorpe
O10	**Substrate polarization of medium chain acyl-CoA dehydrogenase (MCAD)**	Avery Stephens, Kim M. Sabaj, Peter J. Tonge and Marian T. Stankovich