

Subscribing organizations are encouraged to copy and distribute this table of contents for non-commercial purposes.

Centenary Award and Sir Frederick Gowland Hopkins Memorial Lecture



Seeing the invisible by paramagnetic and diamagnetic NMR

G. Marius Clore

1343–1354

Heatley Medal Lecture



Understanding and manipulating antibiotic production in actinomycetes

Mervyn J. Bibb

1355–1364

Thudichum Medal Lecture



Dendritic trafficking for neuronal growth and plasticity

Michael D. Ehlers

1365–1382

Biochemical Society Focused Meeting

CRISPR Evolution, Mechanisms and Infection



University of St Andrews, U.K., 17–19 June 2013

Edited by Emmanuelle Charpentier (Laboratory for Molecular Infection Medicine Sweden, Sweden), John van der Oost (Wageningen University, The Netherlands) and Malcolm White (University of St Andrews, U.K.).

Genomic impact of CRISPR immunization against bacteriophages

Rodolphe Barrangou, Anne-Claire Coûté-Monvoisin, Buffy Stahl, Isabelle Chavichvily, Florian Damange, Dennis A. Romero, Patrick Boyaval, Christophe Fremaux and Philippe Horvath

1383–1391

The basic building blocks and evolution of CRISPR–Cas systems Kira S. Makarova, Yuri I. Wolf and Eugene V. Koonin		1392–1400
Programmable DNA cleavage <i>in vitro</i> by Cas9 Tautvydas Karvelis, Giedrius Gasiunas and Virginijus Siksnys		1401–1406
Cas9-dependent endogenous gene regulation is required for bacterial virulence Timothy R. Sampson and David S. Weiss		1407–1411
CRISPR adaptation in <i>Escherichia coli</i> subtype I-E system Ruth Kiro, Moran G. Goren, Ido Yosef and Udi Qimron		1412–1415
The RNA- and DNA-targeting CRISPR–Cas immune systems of <i>Pyrococcus furiosus</i> Rebecca M. Terns and Michael P. Terns		1416–1421
Hot and crispy: CRISPR–Cas systems in the hyperthermophile <i>Sulfolobus solfataricus</i> Jing Zhang and Malcolm F. White		1422–1426
Electron microscopy studies of Type III CRISPR machines in <i>Sulfolobus solfataricus</i> Giuseppe Cannone, Mariam Webber-Birungi and Laura Spagnolo		1427–1430
Evolutionary causes and consequences of diversified CRISPR immune profiles in natural populations Whitney E. England and Rachel J. Whitaker		1431–1436
<i>Streptococcus zooepidemicus</i> and <i>Streptococcus equi</i> evolution: the role of CRISPRs Andrew S. Waller and Carl Robinson		1437–1443
Selected oral communications		
Requirements for a successful defence reaction by the CRISPR–Cas subtype I-B system Britta Stoll, Lisa-Katharina Maier, Sita J. Lange, Jutta Brendel, Susan Fischer, Rolf Backofen and Anita Marchfelder		1444–1448
SMV1 virus-induced CRISPR spacer acquisition from the conjugative plasmid pMGB1 in <i>Sulfolobus solfataricus</i> P2 Susanne Erdmann, Shiraz A. Shah and Roger A. Garrett		1449–1458
RNA-Seq analyses reveal CRISPR RNA processing and regulation patterns Judith Zoepfel and Lennart Randau		1459–1463
The Cmr complex: an RNA-guided endoribonuclease Scott Bailey		1464–1467
The subtype I-F CRISPR–Cas system influences pathogenicity island retention in <i>Pectobacterium atrosepticum</i> via crRNA generation and Csy complex formation Corinna Richter and Peter C. Fineran		1468–1474
Are bacteriophage defence and virulence two sides of the same coin in <i>Campylobacter jejuni</i> ? Rogier Louwen and Peter van Baarlen		1475–1481

Biochemical Society/European Society for Neurochemistry Focused Meeting

5th Conference on Advances in Molecular Mechanisms Underlying Neurological Disorders
University of Bath, U.K., 23–26 June 2013.

Edited by Marcus Rattray (University of Bradford, U.K.) and Rob Williams (University of Bath, U.K.).

Chaperone-mediated autophagy: dedicated saviour and unfortunate victim in the neurodegeneration arena Jaime L. Schneider and Ana Maria Cuervo	1483–1488
Autophagy and mammalian development Xiaoting Wu, Hyeran Won and David C. Rubinsztein	1489–1494
Lysosome and calcium dysregulation in Alzheimer's disease: partners in crime MaryKate McBrayer and Ralph A. Nixon	1495–1502
Induced pluripotent stem cell (iPSC)-derived dopaminergic models of Parkinson's disease Joel E. Beevers, Tara M. Caffrey and Richard Wade-Martins	1503–1508
Emerging insights into the mechanistic link between α -synuclein and glucocerebrosidase in Parkinson's disease Ryan P. McGlinchey and Jennifer C. Lee	1509–1512
α -Synuclein as a ferrireductase David R. Brown	1513–1517
Astrocyte glutamine synthetase: pivotal in health and disease Christopher F. Rose, Alexei Verkhratsky and Vladimir Parpura	1518–1524
Mitochondrial trafficking in neurons and the role of the Miro family of GTPase proteins Nicol Birsa, Rosalind Norkett, Nathalie Higgs, Guillermo Lopez-Domenech and Josef T. Kittler	1525–1531
<i>Alu</i> elements: at the crossroads between disease and evolution Jernej Ule	1532–1535
The role of TDP-43 in the pathogenesis of ALS and FTL Marco Baralle, Emanuele Buratti and Francisco E. Baralle	1536–1540
Insight into a neuron's preferential susceptibility to oxidative stress Karen F.S. Bell	1541–1545
The serine shuttle between glia and neurons: implications for neurotransmission and neurodegeneration Herman Wolosker and Inna Radzishevsky	1546–1550
D-Serine metabolism: new insights into the modulation of D-amino acid oxidase activity Silvia Sacchi	1551–1556

Gliotransmission: focus on exocytotic release of L-glutamate and L-serine from astrocytes Magalie Martineau	1557–1561
Metabolic and cellular bases of sphingolipidoses Konrad Sandhoff	1562–1568
Endocannabinoid signals in the developmental programming of delayed-onset neuropsychiatric and metabolic illnesses Erik Keimpema, Daniela Calvigioni and Tibor Harkany	1569–1576
Neuroimmune interactions of cannabinoids in neurogenesis: focus on interleukin-1 β (IL-1 β) signalling Daniel García-Ovejero, Ángel Arévalo-Martín, Beatriz Navarro-Galve, Emmanuel Pinteaux, Eduardo Molina-Holgado and Francisco Molina-Holgado	1577–1582
Endocannabinoid signalling in Alzheimer's disease Nazia Maroof, Marie Christine Pardon and David A. Kendall	1583–1587
Uptake and metabolism of iron and iron oxide nanoparticles in brain astrocytes Michaela C. Hohnholt and Ralf Dringen	1588–1592
The intriguing case of motor neuron disease: ALS and SMA come closer Tilmann Achsel, Silvia Barabino, Mauro Cozzolino and Maria Teresa Carri	1593–1597
Motoneuronal and muscle-selective removal of ALS-related misfolded proteins Valeria Crippa, Mariarita Galbiati, Alessandra Boncoraglio, Paola Rusmini, Elisa Onesto, Elisa Giorgetti, Riccardo Cristofani, Arianna Zito and Angela Poletti	1598–1604
Mutations in cytoplasmic dynein and its regulators cause malformations of cortical development and neurodegenerative diseases Joanna Lipka, Marijn Kuijpers, Jacek Jaworski and Casper C. Hoogenraad	1605–1612
Selected oral communications	
Modelling FUSopathies: focus on protein aggregation Tatyana A. Shelkvnikova	1613–1617
Monitoring mitochondrial dynamics and complex I dysfunction in neurons: implications for Parkinson's disease Eve M. Simcox, Amy Reeve and Doug Turnbull	1618–1624
The search for better epilepsy treatments: from slime mould to coconuts Matthew C. Walker and Robin S.B. Williams	1625–1628

Independent Meeting

The 7th International Fission Yeast Meeting: Pombe 2013

University College London, London, U.K., 24–29 June 2013

Edited by Jürg Bähler (University College London, U.K.) and Jacqueline Hayles (Cancer Research UK London Research Institute, U.K.).

Influence of long terminal repeat retrotransposons in the genomes of fission yeasts Mikel Zaratiegui	1629–1633
--	------------------

The links between chromatin spatial organization and biological function Alejandro Rodriguez and Pernilla Bjerling	1634-1639
A snapshot of Snf2 enzymes in fission yeast Punit Prasad and Karl Ekwall	1640-1647
Switching the centromeres on and off: epigenetic chromatin alterations provide plasticity in centromere activity stabilizing aberrant dicentric chromosomes Hiroshi Sato and Shigeaki Saitoh	1648-1653
Understanding non-coding DNA regions in yeast Margarita Schlackow and Monika Gullerova	1654-1659
Modelling the CDK-dependent transcription cycle in fission yeast Miriam Sansó and Robert P. Fisher	1660-1665
mRNA quality control goes transcriptional Cornelia Kilchert and Lidia Vasiljeva	1666-1672
Regulation of entry into gametogenesis by Ste11: the endless game Jayamani Anandhakumar, Sylvain Fauquenoy, Philippe Materne, Valérie Migeot and Damien Hermand	1673-1678
Copper transport and regulation in <i>Schizosaccharomyces pombe</i> Jude Beaudoin, Seda Ekici, Fevzi Daldal, Samia Ait-Mohand, Brigitte Guérin and Simon Labbé	1679-1686
GCN2, an old dog with new tricks Beáta Grallert and Erik Boye	1687-1691
Use of PKA-mediated phenotypes for genetic and small-molecule screens in <i>Schizosaccharomyces pombe</i> Ana Santos de Medeiros, Alexander Magee, Kyle Nelson, Liora Friedberg, Karolina Trocka and Charles S. Hoffman	1692-1695
Systematic genetic analysis of transcription factors to map the fission yeast transcription-regulatory network Gordon Chua	1696-1700
Checkpoint regulation of replication forks: global or local? Divya Ramalingam Iyer and Nicholas Rhind	1701-1705
The CINs of the centromere Susan L. Forsburg	1706-1711
Regulation of chromosome dynamics by Hsk1/Cdc7 kinase Seiji Matsumoto and Hisao Masai	1712-1719
The programme of DNA replication: beyond genome duplication Blanca Gómez-Escoda and Pei-Yun Jenny Wu	1720-1725
Emerging roles for centromere-associated proteins in DNA repair and genetic recombination Fekret Osman and Matthew C. Whitby	1726-1730
Dynein, microtubule and cargo: a ménage à trois Nenad Pavin and Iva M. Tolić-Nørrelykke	1731-1735

Microtubules: greater than the sum of the parts Jonathan L.D. Lawson and Rafael E. Carazo Salas	1736–1744
Role of Cdc42 dynamics in the control of fission yeast cell polarization Maitreyi Das and Fulvia Verde	1745–1749
Formin-based control of the actin cytoskeleton during cytokinesis K. Adam Bohnert, Alaina H. Willet, David R. Kovar and Kathleen L. Gould	1750–1754
The spindle assembly checkpoint: progress and persistent puzzles Silke Hauf	1755–1760
Interplay between mitotic kinesins and the Aurora kinase-PP1 (protein phosphatase 1) axis John C. Meadows	1761–1765
Spatial control of mitotic commitment in fission yeast Iain M. Hagan and Agnes Grallert	1766–1771
<hr/> Corrections	1773
<hr/>	