

colloquia

651st Meeting Lancaster

colloquium: Polyamines in Clinical and Basic Science

| | | |
|---|---|-----|
| Polyamines in clinical and basic science: introductory remarks | D. M. L. MORGAN AND H. M. WALLACE | 845 |
| Ornithine decarboxylase: structure, function and translation regulation | A. E. PEGG, L. M. SHANTZ AND C. S. COLEMAN | 846 |
| Ornithine decarboxylase-induced cellular transformation: the involvement of protein tyrosine kinase(s) and pp130 | E. HÖLTTÄ, M. AUVINEN, A. PAASINEN, A. KANGAS AND L. C. ANDERSSON | 853 |
| Multisite phosphorylation of ornithine decarboxylase increases enzyme activity and intracellular stability | P. J. BROWN, S. G. REDDY AND M. K. HADDOX | 859 |
| S-adenosylmethionine decarboxylase structure-function relationships | B. A. STANLEY AND L. M. SHANTZ | 863 |
| Regulation of spermidine/spermine N¹-acetyltransferase in human tumour cells | H. M. WALLACE AND D. M. QUICK | 870 |
| Parasite polyamine metabolism: targets for chemotherapy | N. YARLETT AND C. J. BACCHI | 875 |
| Polyamines, arginine and nitric oxide | D. M. L. MORGAN | 879 |
| Modulation of the N-methyl-D-aspartate receptor by polyamines: molecular pharmacology and mechanisms of action | K. WILLIAMS | 884 |
| Polyamines and polyamine amides from wasps and spiders | I. S. BLAGBROUGH, E. MOYA AND S. TAYLOR | 888 |
| Polyamine transport in cells | M. A. GRILLO AND S. COLOMBATTO | 894 |

colloquium: Transgenic Plants and Plant Biochemistry

| | | |
|--|-----------------------------|-----|
| Analysis of transgenic tobacco plants containing varying amounts of ribulose-1,5-bisphosphate carboxylase/oxygenase | W. P. QUICK | 899 |
| Manipulation of fructose-2,6-bisphosphate levels in transgenic plants | N. J. KRUGER AND P. SCOTT | 904 |
| Modulation of carbon and nitrogen metabolism in transgenic plants with a view to improved biomass production | C. H. FOYER AND S. FERRARIO | 909 |

| | | |
|---|--|------------|
| Can glutamine synthetase activity levels be modulated in transgenic plants by the use of recombinant DNA technology? | S. J. TEMPLE, S. BAGGA AND C. SENGUPTA-GOPALAN | 915 |
| Production of transgenic plants containing elevated levels of lysine and threonine | G. GALILI, H. KARCHI, O. SHAUL, A. PERL, A. CAHANA, I. B.-T. TZCHORI, X. Z. ZHU AND S. GALILI | 921 |
| Manipulation of lipid metabolism in transgenic plants: biotechnological goals and biochemical realities | D. J. MURPHY | 926 |
| Elucidation of the role of glutathione reductase using transgenic plants | P. MULLINEAUX, G. CREISSEN, P. BROADBENT, H. REYNOLDS, B. KULAR AND A. WELLBURN | 931 |
| Protection from oxidative stress in transgenic plants | H. RENNENBERG AND A. POLLE | 936 |
| Antibody production in transgenic plants | G. C. WHITELAM, W. COCKBURN AND M. R. L. OWEN | 940 |
| Insect-resistant transgenic plants: choosing the gene to do the 'job' | A. M. R. GATEHOUSE, V. A. HILDER, K. S. POWELL, M. WANG, G. M. DAVISON, L. N. GATEHOUSE, R. E. DOWN, H. S. EDMONDS, D. BOULTER, C. A. NEWELL, A. MERRYWEATHER, W. D. O. HAMILTON AND J. A. GATEHOUSE | 944 |
| The use of transgenesis to investigate signal-transduction pathways | J. E. TAYLOR, M. R. MCAINSH, L. MONTGOMERY, K. F. RENWICK, A. A. R. WEBB AND A. M. HETHERINGTON | 949 |
| Investigating the role of plant SNF1-related protein kinases | N. G. HALFORD, A. L. MAN, J. H. A. BARKER, W. MONGER, P. R. SHEWRY, A. SMITH AND P. C. PURCELL | 953 |

colloquium: Brain Bioenergetics

| | | |
|---|--|-------------|
| Energetics of the nerve terminal in relation to central nervous system function | M. ERECINSKA, D. NELSON, M. YUDKOFF AND I. A. SILVER | 959 |
| From the synaptosome to the intact brain | R. A. KAUPPINEN | 965 |
| Energetics of cultured neurones and ischaemia | J. M. POCOCK AND M. A. COUSIN | 970 |
| Near-i.r. spectroscopy of the brain: relevance to cytochrome oxidase bioenergetics | C. E. COOPER, S. J. MATCHER, J. S. WYATT, M. COPE, G. C. BROWN, E. M. NEMOTO AND D. T. DELPY | 974 |
| Energy metabolism in the developing mammalian brain | J. B. CLARK, T. E. BATES, A. ALMEIDA, T. CULLINGFORD AND J. WARWICK | 980 |
| Non-invasive approaches to tissue bioenergetics | B. CHANCE | 983 |
| Magnetic resonance spectroscopy studies on Ca^{2+}, Zn^{2+} and energy metabolism in superfused brain slices | H. BACHELARD, R. BADAR-GOFFER, P. MORRIS AND N. THATCHER | 988 |
| Energy metabolism, ion homeostasis, and cell damage in the brain | K.-I. KATSURA, T. KRISTJÁN AND B. K. SIESJÖ | 991 |
| Inborn and induced defects of the mitochondrial respiratory chain | A. H. V. SCHAPIRA AND J. M. COOPER | 996 |
| Oxidative damage and mitochondrial dysfunction in neurodegenerative diseases | S. E. BROWNE AND M. F. BEAL | 1002 |

colloquium: Biochemistry of Atmospheric Gas Production and Consumption

| | | |
|---|---|-------------|
| Biosynthesis of halogenated methanes | D. B. HARPER | 1007 |
| Biological production and consumption of gaseous organic sulphur compounds | D. P. KELLY, A. P. WOOD, S. L. JORDAN, A. N. PADDEN, V. M. GORLENKO AND G. A. DUBININA | 1011 |
| What controls photosynthesis? | A. J. KEYS, M. A. J. PERRY AND D. W. LAWLER | 1016 |
| Biochemical effects of tropospheric ozone in transgenic plants | P. BROADBENT, G. CREISSEN, F. A. M. WELLBURN, P. M. MULLINEAUX AND A. R. WELLBURN | 1020 |

**Spring Meeting of the Protein and Peptide Science Group
Gregynog**

colloquium: Current Techniques in Polypeptide Structure and Synthesis

| | | |
|---|---|-------------|
| N.m.r. studies of the cytoplasmic C-terminal β-subunit domain of the high-affinity IgE receptor | M. ZLOH, G. ANDERSON, I. CLARK-Lewis, R. THOMAS, I. TOTH AND W. A. GIBBONS | 1027 |
| The structure of the signal-binding domain of the 54 kDa subunit of signal recognition particle and its role in membrane insertion | S. PATEL AND B. AUSTEN | 1030 |
| A prototype computer system for de novo protein design | A. BERRY AND S. E. BRENNER | 1033 |
| Modelling the structures of the isoforms of human endothelins based on the crystal structure of human endothelin-I | R. W. JANES AND B. A. WALLACE | 1037 |
| Caesium-binding sites in the gramicidin pore | D. A. DOYLE AND B. A. WALLACE | 1043 |
| Peptides in molecular recognition: synthetic and conformational aspects | E. GIRALT, F. ALBERICIO, C. GARCIA-ECHEVERRIA, M. PONS, M. ROYO AND M. RUIZ-GAYO | 1045 |
| Further studies on cyclic RGD analogues | J. S. DAVIES, C. ENJALBAL, C. WISE, G. JONES AND B. K. HANNA | 1049 |
| Successful syntheses of β amyloid-(25–35)-peptide: a difficult sequence by N-(9-fluorenylmethoxycarbonyl) chemistry | D. J. S. GUTHRIE, O. EL-AGNAF, P. HARRIOTT, G. B. IRVINE AND B. WALKER | 1052 |
| A lipidic α-amino acid based synthetic adjuvant peptide complex for increasing immunogenicity of vaccines | I. TOTH, M. DANTON, N. FLINN, A. M. HILLERY, I. P. WOOD AND W. A. GIBBONS | 1055 |

cumulative indices:

| | |
|----------------------|-------------|
| Author index | 1059 |
| Keyword index | 1081 |

corrections:

1105

Polyamines in clinical and basic science

| | | |
|---|--|-------------|
| Polyamine metabolism in human hepatocellular cancer cells (Hep-G2) | A. A. SANTOS, A. P. STUBBS, M. MAGHSOUDLOO, G. M. MURPHY AND M. L. WILKINSON | 385S |
| The mechanism of the neurotoxic effects of spermidine | K. M. DOYLE AND G. G. SHAW | 386S |
| Polyamine transport and arginine pool size in vascular endothelial cells | D. M. L. MORGAN AND A. R. BAYDOUN | 387S |
| An investigation of the mechanism of polyamine efflux from human colorectal carcinoma cells | A. J. MACKAREL AND H. M. WALLACE | 388S |
| Difluoromethylornithine (DFMO), an inhibitor of nitrite production by macrophages? | D. M. L. MORGAN | 389S |
| Control of fungal plant diseases using putrescine analogues | D. R. WALTERS AND D. J. ROBINS | 390S |
| New routes to polyamine analogues | B. T. GOLDING, R. J. GRIFFIN, A. MITCHINSON AND M. C. O'SULLIVAN | 391S |
| Polyamines in the intestinal lumen of patients with small bowel bacterial over-growth | Y. SAWADA, S. P. PEREIRA, G. M. MURPHY AND R. H. DOWLING | 392S |
| Formation of cadaverine derivatives in <i>Vicia faba</i> | D. R. WALTERS | 393S |
| The mucolytic activity of polyamines and mucosal invasion | T. A. PAGET AND S. L. JAMES | 394S |
| Uptake of putrescine by human breast cancer cells | K. M. NICOLL, M. MCLEAN AND H. M. WALLACE | 395S |
| Polyamine oxidase activity and growth in human cancer cells | S. LAMOND AND H. M. WALALACE | 396S |
| Development of a prokaryotic model for studying anthracycline-membrane interactions | S. M. BURROW, C. E. ROLPH, J. J. WARING AND D. A. PHOENIX | 397S |
| Histamine release from mast cells by polyamines: an NMDA receptor-mediated event? | W. M. PURCELL, K. M. DOYLE, L. BAGGA AND M. DERKS | 398S |
| Carnosine protects proteins against <i>in vitro</i> glycation and cross-linking | A. R. HIPKISS, J. MICHAELIS, P. SYRRIS, S. KUMAR AND Y. LAM | 399S |
| Changes in spermidine/spermine N-acetyltransferase activity <i>in vivo</i> in response to the immunosuppressive agent, mycophenolic acid | F. M. ROSS, P. H. WHITING AND H. M. WALLACE | 400S |
| Spermine prevents lipid peroxidation induced by essential fatty acids in human breast cancer cells | G. E. CHAPMAN AND H. M. WALLACE | 401S |
| Targeting of tumour cells with polyamine-drug conjugates | P. M. CULLIS, R. E. GREEN, M. E. MALONE, L. MESON-DAVIES AND R. WEAVER | 402S |

Transgenic plants and plant biochemistry

| | | |
|--|--|-------------|
| Purification of α-gliadins to apparent homogeneity | J. B. TURNER, D. B. GORDON, G. V. GARNER, G. A. LORD AND C. A. SMITH | 403S |
| Characteristics of C₄ plant containing varying levels of phosphoenolpyruvate carboxylase | L. DEVER, R. C. LEGOOD AND P. J. LEA | 404S |
| Differential expression of proteins from plant mitochondria subjected to thermal stress | J. R. PRATT, C. K. WOOD AND A. L. MOORE | 405S |

| | | |
|---|--------------------------------------|-------------|
| Titration of the external NADH dehydrogenase and the alternative oxidase in plant mitochondria | G. R. LEACH, K. KRAB AND A. L. MOORE | 406S |
|---|--------------------------------------|-------------|

Brain bioenergetics

| | | |
|--|---|-------------|
| Increased oxidative metabolism and oxidative stress in <i>m</i>-dinitrobenzene neurotoxicity | D. E. RAY, N. J. ABBOTT, M. W. K. CHAN AND I. A. ROMERO | 407S |
| Biochemical mechanisms of signalling pathways for different classes of analgesic molecules | W. A. GIBBONS, J. M. GIBBONS AND A. NICOLAOU | 408S |
| Development of mitochondrial respiratory-chain complexes in neonatal rat brain | A. ALMEIDA, T. E. BATES AND J. BB. CLARK | 409S |
| Comparison of the uptake of [³H]glutamate into rat cerebrocortical and cerebellar synaptosomes. Effects of anaesthetic agents | B. NICOL, D. J. ROWBOTHAM AND D. G. LAMBERT | 410S |
| Immunochemical analysis of FK506 binding proteins in neuronal cell lines | A. R. CHARTERS, M. KOBAYASHI AND S. P. BUTCHER | 411S |
| The subcellular distribution of FK506 binding proteins in rat brain | A. R. CHARTERS, M. KOBAYASHI AND S. P. BUTCHER | 412S |
| Nuclear expression of mitochondrial genes implicated in human encephalomyopathies | L. SUTHERLAND, J. DAVIDSON AND H. T. JACOBS | 413S |
| Development of systems supplying energy to the human brain: a map derived from the onset of disease due to inherited defects | R. A. HARKNESS | 414S |
| Molecular cloning of endopeptidase-24.15 from pig brain | N. HABGOOD, H. EASTHAM AND A. J. TURNER | 415S |
| Regulation of acetyl-CoA carboxylase (ACC) by ATP depletion in developing oligodendrocytes mimics the action of AMP-activated protein kinase (AMPK) | F. MOORE AND P. J. BROPHY | 416S |
| Mobilisation of intracellular Ca²⁺ triggers [³H]-noradrenaline release from SH-SY5Y cells | J. R. PURKISS, G. B. WILLARS AND S. R. NAHORSKI | 417S |
| An investigation into the aetiology of non-freezing cold injury using a near infra red spectroscopy | M. S. IRWIN, M. S. THORNLEY AND C. J. GREEN | 418S |
| Phospholipase D does not mediate alcohol inhibition of [³H]-noradrenaline release from SH-SY5Y cells | J. R. PURKISS | 419S |
| Mechanisms of phosphate transport in the lactating rat mammary gland | J. M. SHILLINGFORD, D. B. SHENNAN AND R. B. BEECHEY | 420S |
| The relationships between impaired cerebral energy metabolism and apoptosis in the cingulate gyrus of newborn piglets following transient hypoxia-ischaemia | H. MEHMET, X. YUEW, M. V. SQUIER AND A. D. EDWARDS | 421S |
| Body composition in immature rats with D-galactosamine induced hepatitis and bile duct ligation | A. J. BAKER, H. ANSELL, R. FOSTER, V. B. PATEL AND V. R. PREEDY | 422S |

Biochemistry of atmospheric gas production and consumption

| | | |
|---|-----------------------------------|-------------|
| The microbial degradation of thiocyanate | F. MASON, D. HARPER AND M. LARKIN | 423S |
|---|-----------------------------------|-------------|

| | | |
|---|---|-------------|
| At physiological effector concentrations, ascorbate initiated peroxidation of C57Bl mouse heart membrane lipids is more inhibited by ATP- than by GSH-mediated antioxidant actions | L. WICKENS, J. GOR AND T. HALLINAN | 424S |
| <hr/> | | |
| General topics | | |
| Pre-operative recombinant interleukin-2 and increased nephrotoxicity | D. J. DEEHAN, S. D. HEYS, J. BROOM, O. EREMIN AND P. H. WHITING | 425S |
| Modulation of mitogen and alloantigen-induced lymphocyte proliferative responses by rat lacrimal gland-derived factors | A. G. POCKLEY AND P. C. MONTGOMERY | 426S |
| Synergistic interactions between adenosine A¹- and α_{1B}-adrenoceptors in DDT1 MF-2 cells | J. M. DICKENSON | 427S |
| The acute effects of alcohol and acetaldehyde on cardiac nucleotide levels | V. B. PATEL, L. M. RODRIGUES, J. R. GRIFFITHS, P. J. RICHARDSON AND V. R. PREEDY | 428S |
| Insulin-like growth factor binding proteins in fed and nutritionally restricted rats: interaction with acute ethanol dosage | J. S. MARWAY, J. P. MIELL AND V. R. PREEDY | 429S |
| A comparison of cytosolic phospholipase A₂ expression in human islets of Langerhans and rodent insulin-secreting cells | A. C. LOWETH, J. H. B. SCARPELLO AND N. G. MORGAN | 430S |
| Cholesterol metabolism in the livers of chick embryos produced from immature birds | K. VAJDA, J. H. SHAND, D. W. WEST, B. K. SPEAKE AND R. C. NOBLE | 431S |
| Effects of sterol biosynthesis inhibitors on phosphatidylcholine biosynthesis in <i>Apium graveolens</i> | E. T. PARKIN, L. J. GOAD AND C. E. ROLPH | 432S |
| Anti-atherogenic effects of cholesterol vaccination | J. M. BAILEY, R. BRIGHT, R. TOMAR AND J. BUTLER | 433S |
| Inhibition of neutral cholesterol ester hydrolase in rat liver by fibrac acids and probucol <i>in vitro</i> | J. H. SHAND AND D. W. WEST | 434S |
| Does enolase have a role in cholesterol metabolism? | J. H. SHAND AND D. W. WEST | 435S |
| A histological study of the pathological effect of lipopolysaccharide-free glycerophospholipid: cholesterol acyl transferase (GCAT) on Atlantic Salmon (<i>Salmo salar L.</i>) | G. COLEMAN AND P. J. HUNTLY | 436S |
| HDL cholesterol concentrations in healthy volunteers | P. H. WHITING, J. ROBERTSON AND R. J. MAUGHAN | 437S |
| Membrane targetting of carbonic anhydrase II (CAII) in human pancreatic ductal Capan 1 cells in culture | I. MAHIEU, E. HOLLANDE AND N. CARTER | 438S |
| Hypothetical structure of the membrane-associated ES oncoprotein of human papillomavirus type 16 | C. J. ULLMAN, P. I. HARIS, B. KELL, J. CASON, R. J. JEWERS, J. M. BEST, V. C. EMERY AND S. J. PERKINS | 439S |
| Protective effect of raised extracellular potassium against rapid cell damage in the rat heart | R. J. HARDING AND C. J. DUNCAN | 440S |
| Effect of osmotic pressure on cellular damage in the perfused rat kidney | J. W. MORTON AND C. J. DUNCAN | 441S |
| Antioxidant status in skeletal muscle and plasma of rats treated with ethanol | H. ANSELL, M. E. REILLY, V. B. PAEL, L. C. HEAP, T. J. PETERS AND V. R. PREEDY | 442S |

| | | |
|--|---|-------------|
| Differential effects of anti-asthmatic drugs on arachidonic acid and platelet-activating factor | S. A. SAEED, N. ALI AND S. SALEEM | 443S |
| Molecular activity of human milk xanthine oxidase varies with time after parturition | A.-M. BROWN, M. BENBOUBETRA, M. ELLISON, J. D. RECKLESS AND R. HARRISON | 444S |
| Inactivation of glucose-6-phosphate dehydrogenase by glycation | E. GANEA AND J. J. HARDING | 445S |
| Tissue insulin-like growth factor-I in soleus, plantaris, gastrocnemius, and ventricular muscle: chronic effects of alcohol | V. B. PATEL, R. J. RICHARDSON, V. R. PREEDY AND J. P. MIELL | 446S |
| The acute effects of a single dose of ethanol on biochemical indices of skeletal muscle composition: time course changes and comparison with the effects of endotoxin | M. E. REILLY, A. PAICE, H. ANSELL, V. B. PATEL, J. S. MARWAY, A. B. BONNER AND V. R. PREEDY | 447S |
| Expression cloning a dust mite cysteine proteinase, Der p 1, a major allergen associated with asthma and hypersensitivity reactions | G. SCOBIE, V. RAVINDRAN, S. M. DEAM, M. THOMAS, S. K. SREEDHARAN, K. BROCKLEHURST AND N. KALSHEKER | 448S |
| Interaction of cycloheximide with 25S ribosomal RNA from yeast | M. CANNON, M. A. A. MIRZA AND P. R. BROWN | 449S |
| Spectroscopic and conformational studies of the C-terminal cytoplasmic beta subunit 46-peptide of the high affinity IgE receptor | M. ZLOH, G. ANDERSON, I. CLARK-Lewis, A. NICOLAOU, R. THOMAS, I. TOTH AND W. A. GIBBONS | 450S |
| Immunoseparation of membrane peptidases from pig lung membranes using magnetic beads | K. BARNES, L. J. MURPHY AND A. J. TURNER | 451S |
| The effect of temperature on the adhesion of cultured Chinese hamster lung (CHL) cells | A. YILDIRIM AND W. J. D. WHISH | 452S |
| Simple and efficient cDNA capture utilising a short gene-specific probe attached to magnetic beads | K. MORGAN AND N. KALSHEKER | 453S |
| Membrane peptidase activity of a human endothelial cell line (EA.hy 926) | K. J. GREENHOUGH, B. J. WALKDEN, L. J. MURPHY, H. E. McLAREN, K. BARNES AND A. J. TURNER | 454S |
| Posttranslational regulation of arginine decarboxylase synthesis by spermine in osmotically-stressed oat leaves | A. F. TIBURCIO, R. T. BESFORD AND A. BORRELL | 455S |

contents—index of authors

- | | | | |
|---|---|--|--|
| Abbott, N. J. 407S Albericio, F. 104S Ali, N. 443S Almeida, A. 409S, 980 Anderson, G. 450S, 1027 Andersson, L. C. 853 Ansell, H. 422S, 442S, 447S Austen, B. 1030 Auvinen, M. 853 Bacchi, C. J. 875 Bachelard, H. 988 Badar-Goffer, R. 988 Bagga, S. 915 Baggs, L. 398S Bailey, J. M. 433S Baker, A. J. 422S Barker, J. H. A. 953 Barnes, K. 451S, 454S Bates, T. E. 409S, 980 Baydoun, A. R. 387S Beal, M. F. 1002 Beechey, R. B. 420S Benboubetra, M. 444S Berry, A. 1033 Besford, R. T. 455S Best, J. M. 439S Blagbrough, I. S. 888 Bonner, A. B. 447S Borrell, A. 455S Boulter, D. 944 Brenner, S. E. 1033 Bright, R. 433S Broadbent, P. 931, 1020 Brocklehurst, K. 448S Broom, J. 425S Brophy, P. J. 416S Brown, A.-M. 444S Brown, G. C. 974 Brown, P. J. 859 Brown, P. R. 449S Browne, S. E. 1002 Burrow, S. M. 397S Butcher, S. P. 411S, 412S Butler, J. 433S Cahana, A. 921 Cannon, M. 449S Carter, N. 438S Cason, J. 439S Chan, M. W. K. 407S Chance, B. 983 Chapman, G. E. 401S | Charters, A. R. 411S, 412S Clark, J. B. 409S, 980 Clark-Lewis, I. 450S, 1027 Cockburn, W. 940 Coleman, C. S. 846 Coleman, G. 436S Colombatto, S. 894 Cooper, C. E. 974 Cooper, J. M. 996 Cope, M. 974 Cousin, M. A. 970 Creissen, G. 931, 1020 Cullingford, T. 980 Danton, M. 1055 Davidson, J. 413S Davies, J. S. 1049 Davison, G. M. 944 Dear, S. M. 448S Deehan, D. J. 425S Delpy, D. T. 974 Derks, M. 398S Dever, L. 404S Dickenson, J. M. 427S Dowling, R. H. 392S Down, R. E. 944 Doyle, D. A. 1043 Doyle, K. M. 386S, 398S Dubinina, G. A. 1011 Duncan, C. J. 440S, 441S Eastham, H. 415S Edmonds, H. S. 944 Edwards, A. D. 421S El-Agnaf, O. 1052 Ellison, M. 444S Emery, V. C. 439S Enjalbal, C. 1049 Erecińska, M. 959 Eremin, O. 425S Ferrario, S. 909 Flinn, N. 1055 Foster, R. 422S Foyer, C. H. 909 Galili, G. 921 Galili, S. 921 Garcia-Echeverria, C. 1045 Garner, G. V. 403S Gatehouse, A. M. R. 944 | Gatehouse, J. A. 944 Gatehouse, L. N. 944 Genea, E. 445S Gibbons, J. M. 408S Gibbons, W. A. 408S, 450S, 1027, 1055 Giralt, E. 1045 Goad, L. J. 432S Golding, B. T. 391S Gor, J. 424S Gordon, D. B. 403S Gorlenko, V. M. 1011 Green, C. J. 418S Green, R. E. 402S Greenhough, K. J. 454S Griffin, R. J. 391S Griffiths, J. R. 428S Grillo, M. A. 894 Guthrie, D. J. S. 1052 Habgood, N. 415S Haddox, M. K. 859 Halford, N. G. 953 Hallinan, T. 424S Hamilton, W. D. O. 944 Handa, B. K. 1049 Haper, D. 423S Harding, J. J. 445S Harding, R. J. 440S Haris, P. I. 439S Harkness, R. A. 414S Harper, D. B. 1007 Harriott, P. 1052 Harrison, R. 444S Heap, L. C. 442S Hetherington, A. M. 949 Heys, S. D. 425S Hilder, V. A. 944 Hillery, A. M. 1055 Hipkiss, A. R. 399S Hollande, E. 438S Hölttä, E. 853 Hunty, P. J. 436S Irvine, G. B. 1052 Irwin, M. S. 418S Jacobs, H. T. 413S James, S. L. 394S Janes, R. W. 1037 Jewers, R. J. 439S Jones, G. 1049 Jordan, S. L. 1011 | Kalsheker, N. 448S, 453S Kangas, A. 853 Karchi, H. 921 Katsura, K.-I. 991 Kauppinen, R. A. 965 Kell, B. 439S Kelly, D. P. 1011 Keys, A. J. 1016 Kobayashi, M. 411S, 412S Krab, K. 406S Kristián, T. 991 Kruger, N. J. 904 Kular, B. 931 Kumar, S. 399S Lam, Y. 399S Lambert, D. G. 410S Lamond, S. 396S Larkin, M. 423S Lawlor, D. W. 1016 Lea, P. J. 404S Leach, G. R. 406S Leegood, R. C. 404S Lord, G. A. 403S Loweth, A. C. 430S Mackarel, A. J. 388S Maghsoudloo, M. 385S Mahieu, I. 438S Malone, M. E. 402S Man, A. L. 953 Marway, J. S. 429S, 447S Mason, F. 423S Matcher, S. J. 974 Maughan, R. J. 437S McAinsh, M. R. 949 McLaren, H. E. 454S McLean, M. 395S Mehmet, H. 421S Merryweather, A. 944 Merson-Davies, L. 402S Michaelis, J. 399S Miell, J. P. 429S, 446S Mirza, M. A. A. 449S Mitchinson, A. 391S Monger, W. 953 Montgomery, L. 949 Montgomery, P. C. 426S Moore, A. L. 405S, 406S Moore, F. 416S Morgan, D. M. L. 387S, 389S, 845, 879 |
|---|---|--|--|

contents—index of authors

| | | | |
|---|--|-------------------------------|---|
| Morgan, K. 453S | Polle, A. 936 | Sengupta-Gopalan, C. 915 | Walkden, B. J. 454S |
| Morgan, N. G. 430S | Pons, M. 1045 | Shand, J. H. 431S, 434S, 435S | Walker, B. 1052 |
| Morris, P. 988 | Powell, K. S. 944 | Shantz, L. M. 846, 863 | Wallace, B. A. 1037, 1043 |
| Morton, J. W. 441S | Pratt, J. R. 405S | Shaul, O. 921 | Wallace, H. M. 388S, 395S, 396S, 400S, 401S, 845, 870 |
| Moya, E. 888 | Preedy, V. R. 422S, 428S, 429S, 442S, 446S, 447S | Shaw, G. G. 386S | Walters, D. R. 390S, 393S |
| Mullineaux, P. M. 931, 1020 | Purcell, P. C. 953 | Shennan, D. B. 420S | Wang, M. 944 |
| Murphy, D. J. 926 | Purcell, W. M. 398S | Shewry, P. R. 953 | Waring, J. J. 397S |
| Murphy, G. M. 385S, 392S | Purkiss, J. R. 417S, 419S | Shillingford, J. M. 420S | Warwick, J. 980 |
| Murphy, L. J. 451S, 454S | Quick, D. M. 870 | Siesjö, B. K. 991 | Weaver, R. 402S |
| Nahorski, S. R. 417S | Quick, W. P. 899 | Silver, I. A. 959 | Webb, A. A. R. 949 |
| Nelson, D. 959 | Ravindran, V. 448S | Smith, A. 953 | Wellburn, A. R. 931, 1020 |
| Nemoto, E. M. 974 | Ray, D. E. 407S | Smith, C. A. 403S | Wellburn, F. A. M. 1020 |
| Newell, C. A. 944 | Reckless, J. D. 444S | Speake, B. K. 431S | West, D. W. 431S, 434S, 435S |
| Nicol, B. 410S | Reddy, S. G. 859 | Squier, M. V. 421S | Whish, W. J. D. 452S |
| Nicolaou, A. 408S, 450S | Reilly, M. E. 442S, 447S | Sreedharan, S. K. 448S | Whitelam, G. C. 940 |
| Nicoll, K. M. 395S | Rennenberg, H. 936 | Stanley, B. A. 863 | Whiting, P. H. 400S, 425S, 437S |
| Noble, R. C. 431S | Renwick, K. F. 949 | Stubbs, A. P. 385S | Wickens, L. 424S |
| O'Sullivan, M. C. 391S | Reynolds, H. 931 | Sutherland, L. 413S | Wilkinson, M. L. 385S |
| Owen, M. R. L. 940 | Richardson, P. J. 428S, 446S | Syrris, P. 399S | Willars, G. B. 417S |
| Paasinen, A. 853 | Robertson, J. 437S | Taylor, J. E. 949 | Williams, K. 884 |
| Padden, A. N. 1011 | Robins, D. J. 390S | Taylor, S. 888 | Wise, C. 1049 |
| Paget, T. A. 394S | Rodrigues, L. M. 428S | Temple, S. J. 915 | Wood, A. P. 1011 |
| Paice, A. 447S | Rolph, C. E. 397S, 432S | Thatcher, N. 988 | Wood, C. K. 405S |
| Parkin, E. T. 432S | Romero, I. A. 407S | Thomas, M. 448S | Wood, I. P. 1055 |
| Patel, S. 1030 | Ross, F. M. 400S | Thomas, R. 450S, 1027 | Wyatt, J. S. 974 |
| Patel, V. B. 422S, 428S, 442S, 446S, 447S | Rowbotham, D. J. 410S | Thorniley, M. S. 418S | Yarlett, N. 875 |
| Pegg, A. E. 846 | Royo, M. 1045 | Tiburcio, A. F. 455S | Yildirim, A. 452S |
| Pereira, S. P. 392S | Ruiz-Gayo, M. 1045 | Tomar, R. 433S | Yudkoff, M. 959 |
| Perkins, S. J. 439S | Saeed, S. A. 443S | Toth, I. 450S, 1027, 1055 | Yue, X. 421S |
| Perl, A. 921 | Saleem, S. 443S | Turner A. J. 415S, 451S, 454S | Zhu, X. Z. 921 |
| Perry, M. A. J. 1016 | Santos, A. A. 385S | Turner, J. B. 403S | Zloh, M. 450S, 1027 |
| Peters, T. J. 442S | Sawada, Y. 392S | Tzchori, I. B.-T. 921 | |
| Phoenix, D. A. 397S | Scarpello, J. H. B. 430S | Ullman, C. J. 439S | |
| Pockley, A. G. 426S | Schapira, A. H. V. 996 | Vajda, K. 431S | |
| Pocock, J. M. 970 | Scobie, G. 448S | | |
| | Scott, P. 904 | | |