

PUBLISHED BY PORTLAND PRESS ON BEHALF OF  
THE MEDICAL RESEARCH SOCIETY AND THE BIOCHEMICAL SOCIETY

© The Medical Research Society and the Biochemical Society 1994  
ISSN 0143-5221

*Printed in Great Britain by Bell and Bain Limited, Glasgow*

## Volume 86

### AUTHOR INDEX

- Ahlman, B. 653–662  
Albano, J.D.M. 227–231  
Aldred, G.P. 517–522  
Amris, S. 433–440  
Andersson, K. 653–662  
Angus, R.M. 291–295  
Arnal, M. 663–669  
Arvesen, B.L. 505–510  
Ashby, M.J. 723–730  
Atucha, N.M. 405–409
- Baggio, B. 239–243  
Balcke, P. 633–638  
Ballardie, F.W. 627–632  
Balsama, M. 209–215  
Bem-Ishay, D. 263–268  
Benestad, H.B. 505–510  
Bengtsson, A.-Å. 233–237  
Beretta-Piccoli, C. 383–390  
Bernardi, L. 537–545  
Berne, C. 159–167  
Biaggioni, I. 149–158  
Biggs, T. 639–644  
Bin Talib, H.K. 11–14  
Black, C.M. 141–148  
Bone, D. 15–25  
Bongiovi, S. 27–34  
Bossaert, L. 49–53  
Boulter, P.S. 453–460  
Bowron, A. 697–702  
Breuille, D. 663–669  
Brittenden, J. 123–132  
Broom, J. 339–345  
Broughton Pipkin, F. 557–565  
Brouwer, J. 531–535  
Brown, D.S. 339–345  
Brown, J. 723–730  
Brown, M.A. 251–255, 575–581  
Brown, M.J. 723–730  
Brundin, T. 611–618  
Buddle, M.L. 251–255  
Burggraaf, J. 497–503  
Byrne, C. 297–303
- Calder, A.G. 177–184  
Calver, A. 203–208
- Cambrey, A.D. 141–148  
Campbell, S.K. 227–231  
Cario, G.M. 251–255  
Carlton, M.A. 251–255  
Carstensen, E. 35–41  
Casiglia, E. 27–34  
Castaigne, A. 523–529  
Castaldo, G. 447–451  
Counce, M. 43–48  
Cavallin, S. 133–139  
Cayton, R.M. 59–65  
Ceolotto, G. 239–243  
Cervenka, J.H. 149–158  
Chalners, R.J.G. 627–632  
Chawtur, V. 223–226  
Chen, H.C. 689–695  
Cheung, B.M.Y. 723–730  
Clark, M.L. 169–175, 469–477  
Clark, R. 709–714  
Cochran, M. 223–226  
Coffman, J.D. 269–273  
Cohen, A.F. 497–503  
Cohen, R.A. 269–273  
Colangeli, G. 27–34  
Connolly, C.K. 645  
Coppack, S. 177–184  
Cowen, S.J. 479–485  
Crijns, H.J.G.M. 531–535  
Croft, K.D. 83–90  
Crosby, J. 417–424  
Curzen, N.P. 359–374  
Cusi, D. 383–390
- Dassi, S. 209–215  
Davidson, C. 297–303  
Davies, M. 627–632  
Davies, R.J.O. 417–424  
Davis, T.M.E. 83–90  
De Backer, W.A. 49–53  
De Jongh, R.F. 49–53  
De Wit, L.Th. 67–74  
Deicher, H. 461–467  
Devynck, M.-A. 263–268  
Dias, J.A. 469–477  
Dickerson, J.E.C. 723–730  
Dilena, B. 223–226
- Dobesova, Z. 11–14  
Doherty, J.F. 347–351  
Donaldson, G.C. 43–48  
du Bois, R.M. 141–148  
Dubois-Randé, J.L. 523–529  
Duval-Moulin, A.M. 523–529
- Edwards, B.D. 627–632  
Ekman, A.-C. 285–290  
Elia, M. 177–184  
Elshater-Zanetti, F. 383–390  
Eremin, O. 123–132, 339–345, 671–675  
Evans, T.W. 359–374
- Fagius, J. 159–167  
Falcone, C. 537–545  
Falconver, J.S. 479–485  
Farrer, A. 227–231  
Farthing, M.J.G. 469–477  
Fearon, K.C.H. 479–485  
Finardi, G. 537–545  
Fortunato, G. 447–451  
Fraenkel, M.B. 517–522  
Franco-Bourland, R.E. 149–158  
Frants, R.R. 323–329  
Frayn, K.N. 169–175, 177–184  
Freeman, W. 59–65  
Freyschuss, U. 425–432
- Gallati, H. 461–467  
Gambaro, G. 239–243  
García-Estañ, J. 405–409  
Garlick, P.J. 339–345, 671–675  
Geisert, J. 245–249  
Gevers Leuven, J.A. 323–329  
Ginocchio, G. 27–34  
Go, H. 703–707  
Godsland, I.F. 317–322  
Golden, M.H.N. 347–351  
Golinski, P. 741–747  
Goodall, A.H. 731–739  
Goode, H.F. 411–415  
Gottsauer-Wolf, M. 633–638  
Goyal, M. 749–751  
Griffin, G.E. 347–351

- Griffiths, A.J. 169–175  
 Griffiths, M.J.D. 359–374  
 Groen, A.K. 67–74, 75–82  
 Guzzetti, S. 209–215
- Haaksma, J. 531–535  
 Halliday, D. 91–102, 103–118, 185–193  
 Hamada, M. 257–262  
 Hannan, W.J. 479–485  
 Hardy, E. 195–202  
 Harris, A. 203–208  
 Harrison, N.K. 141–148  
 Hatano, A. 703–707  
 Hatch, M. 353–357, 511–516  
 Havekes, L.M. 323–329  
 Hayes, M.E. 627–632  
 Heales, S. 697–702  
 Hedenborg, L. 653–662  
 Heintz, J.F. 523–529  
 Helwig, J.-J. 245–249  
 Henriksson, J. 15–25  
 Herlitz, H. 233–237  
 Heys, S.D. 123–132, 339–345, 671–675  
 Hickner, R.C. 15–25  
 Hirose, H. 311–316  
 Hittinger, L. 523–529  
 Hiwada, K. 257–262  
 Hoeks, A.P.G. 567–574  
 Hofstra, L. 567–574  
 Holthues, J. 741–747  
 Horn, E.H. 195–202  
 Howarth, J.A. 453–460  
 Howdle, P.D. 411–415  
 Huisman, L. 497–503  
 Humphreys, S.M. 169–175  
 Hurley, M.V. 305–310  
 Huvers, F.C. 567–574
- Ipallomeni, M. 447–451  
 Ito, K. 311–316  
 Iversen, P.O. 433–440, 505–510
- Jackson, A.A. 217–222, 441–446  
 Jacobs, M.-C.G.S. 275–283  
 Jamison, J.P. 646  
 Janes, S.L. 731–739  
 Jansen, T.L.Th.A. 275–283  
 Joen, T. 433–440  
 Jones, D.W. 305–310  
 Jonsson, O. 233–237  
 Jorens, P.G. 49–53  
 Jorfeldt, L. 15–25  
 Judes, C. 245–249
- Kanno, Y. 399–404  
 Keatinge, W.R. 43–48  
 Keil, M. 633–638  
 Kester, A.D.M. 567–574  
 Khan, K. 177–184  
 Kido, K. 311–316  
 Kitslaar, P.J.E.H.M. 567–574  
 Klinkspoor, J.H. 67–74, 75–82  
 Klitgaard, H. 433–440  
 Kluft, C. 497–503  
 Knox, A.J. 647–652  
 Koeleman, C.A.M. 75–82  
 Kohner, E.M. 689–695  
 Komeyama, T. 703–707  
 Koyama, K. 311–316  
 Kroon, J.M. 497–503  
 Kunes, J. 11–14, 263–268  
 Kurpad, A. 177–184  
 Kurz, R.W. 633–638
- Lacour, B. 263–268  
 Langlais, P.J. 149–158  
 Langley, S.C. 217–222  
 Laurent, G.J. 141–148  
 Le Quan Sang, K.H. 263–268  
 Leijonmarck, C.-H. 653–662  
 Lenders, J.W.M. 275–283  
 Leppäluoto, J. 285–290  
 Leuzzi, S. 537–545  
 Levine, G.L. 149–158  
 Lewis, L.K. 391–397  
 Lie, K.I. 531–535  
 Lipworth, B.J. 331–337  
 Liu, P.T. 453–460  
 Ljungqvist, O. 653–662  
 Lomas, D.A. 489–495  
 Lucini, D. 547–556
- Macdonald, I.A. 177–184, 677–687  
 Madrazo, I. 149–158  
 Malliani, A. 209–215, 547–556  
 Marber, M.S. 375–381  
 Marchesi, E. 537–545  
 Marchini, F. 239–243  
 Mario, L. 27–34  
 Martinelli, L. 537–545  
 Maruyama, H. 311–316  
 Massfelder, T. 245–249  
 Mattock, M. 43–48  
 Mawer, E.B. 627–632  
 Maxwell, J.D. 203–208  
 McAnulty, R.J. 141–148  
 McCall, R. 291–295  
 McDevitt, D.G. 331–337
- McDougall, J.G. 517–522  
 McFarlane, L.C. 331–337  
 McGrath, J.C. 291–295  
 McKinley, R.K. 646  
 McNurlan, M.A. 339–345, 671–675  
 Mehring, N. 741–747  
 Mekhton, S. 83–90  
 Mela, G.S. 547–556  
 Melin, C. 663–669  
 Mikhailidis, D.P. 593–598  
 Millar, J.G.B. 227–231  
 Millward, D.J. 91–102, 103–118, 185–193  
 Mizusawa, T. 703–707  
 Morel, D.R. 599–610  
 Morrell, N.W. 639–644  
 Morris, B.J. 583–592  
 Mortensen, D. 709–714  
 Moss, D.W. 447–451  
 Mourad, F.H. 469–477  
 Müller, M.J. 461–467  
 Myers, A.R. 141–148
- Nally, J.E. 291–295  
 Neild, P.J. 43–48  
 Neusser, M. 741–747  
 Newham, D.J. 305–310  
 Nicholls, M.G. 391–397  
 Nielsen, C.B. 715–721  
 Nijran, K.S. 639–644  
 Nordgaard, I. 433–440  
 Nordgren, N. 425–432
- Obled, C. 663–669  
 Ockenga, J. 461–467  
 O'Connell, G. 297–303  
 O'Connor, D.T. 149–158  
 Okada, H. 399–404  
 Okayama, H. 257–262  
 Ormerod, L.P. 749–751  
 Oude Elferink, R.P.J. 67–74  
 Overgaard, O. 433–440
- Packe, G.E. 59–65  
 Pacy, P.J. 91–102, 103–118, 185–193  
 Pagani, M. 209–215, 547–556  
 Palatini, P. 27–34  
 Park, K.G.M. 123–132, 339–345, 671–675  
 Parke, D.V. 453–460  
 Parkin, H. 677–687  
 Parmer, R.J. 149–158  
 Patel, V. 689–695

- Pedersen, E.B. 715–721  
 Perchet, H. 523–529  
 Persson, B. 425–432  
 Pessina, A.C. 27–34, 239–243  
 Phillips, J.W. 223–226  
 Pidgeon, G.B. 391–397  
 Piers, L.S. 441–446  
 Plester, C.E. 479–485  
 Poinsot, O. 599–610  
 Ponti, G.B. 209–215  
 Pouillart, F. 523–529  
 Price, G.M. 91–102, 103–118, 185–193  
 Pride, N.B. 55–58  
 Prothero, A. 417–424  
  
 Quesada, T. 405–409  
 Quevedo, M.R. 91–102, 103–118, 185–193  
  
 Rabkin, R. 709–714  
 Radaelli, A. 537–545  
 Ramírez, A. 405–409  
 Ramsay, M.M. 557–565  
 Rassam, S.M.B. 689–695  
 Raymond, F.D. 447–451  
 Reiter, L. 575–581  
 Remick, D.G. 347–351  
 Richards, A.M. 391–397  
 Richardson, R.A. 479–485  
 Rinaldi, M. 537–545  
 Robertson, D. 149–158  
 Robinson, B.G. 583–592  
 Rodger, A. 575–581  
 Rose, F. 663–669  
 Ross, J. 123–132  
 Rubin, P.C. 195–202, 557–565  
  
 Salim, A.F.M. 469–477  
 Salvatore, F. 447–451  
 Saruta, T. 311–316, 399–404  
 Sato, F. 133–139  
 Sato, K. 133–139  
 Sato, K.T. 133–139  
 Saussine, C. 245–249  
 Schaper, N.C. 567–574  
 Schoemaker, H.C. 497–503  
 Schwieger, I.M. 599–610  
 Seed, W.A. 639–644  
 Selberg, O. 461–467  
  
 Selldén, E. 611–618  
 Semplicini, A. 239–243  
 Sestoft, L. 433–440  
 Shaw, A.J. 627–632  
 Shaw, R.J. 749–751  
 Shaw, S. 383–390  
 Shetty, P.S. 441–446  
 Simeoni, U. 245–249  
 Simpson, E. 677–687  
 Skidmore, R. 557–565  
 Smelt, A.H.M. 323–329  
 Smits, P. 275–283  
 Soares, M. 441–446  
 Sorensen, S.S. 715–721  
 Southcott, A.M. 141–148  
 Spencer, J.L. 83–90  
 Stockenhuber, F. 633–638  
 Stone, R.A. 149–158  
 Stradling, J.R. 417–424  
 Strong, P. 593–598  
 Struthers, A.D. 1–9  
 Sturrock, N.D.C. 1–9  
 Suputtamongkol, Y. 83–90  
 Surtees, R. 697–702  
 Süttmann, U. 461–467  
 Suzuki, H. 399–404  
 Swan, J.W. 317–322  
 Symons, A.M. 453–460  
 Sundercombe-Court, D. 43–48  
  
 Takeda, M. 703–707  
 Tanikawa, T. 703–707  
 Tashiro, Y. 311–316  
 Tepel, M. 741–747  
 Thien, T. 275–283  
 Thillainayagam, A.V. 469–477  
 Thompson, C.S. 593–598  
 Thomson, N.C. 291–295  
 Tsutsui, T. 703–707  
 Turnberg, L.A. 619–626  
 Tytgat, G.N.J. 67–74, 75–82  
  
 Ungerstedt, U. 15–25  
  
 Vakkuri, O. 285–290  
 Vallance, P. 203–208  
 Valle, F. 537–545  
 van den Berg, M.P. 531–535  
 Van den Maagdenberg, A.M.J.M. 323–329  
  
 Van den Laarse, A. 323–329  
 Van Dijk, W. 75–82  
 Van Overveld, F.J. 49–53  
 Van 'T Hooft, F.M. 323–329  
 Van Wijland, M.J.A. 67–74, 75–82  
 Vaziri, N.D. 353–357, 511–516  
 Viganó, M. 537–545  
 Vincenti, M. 239–243  
 Vrana, A. 11–14  
 Vroom, T.F.F.P. 323–329  
 Vuolteenaho, O. 285–290  
  
 Wahren, J. 611–618  
 Walker, B.E. 411–415  
 Walter, P. 49–53  
 Walton, C. 317–322  
 Wang, M.-X. 251–255  
 Wardle, T.D. 619–626  
 Waterlow, J.C. 441–446  
 Webber, J. 677–687  
 Weber, A. 599–610  
 Webster, N.R. 411–415  
 Weidmann, P. 383–390  
 Wernerman, J. 653–662  
 Wheeldon, N.M. 331–337  
 White, N.J. 83–90  
 Whitworth, J.A. 251–255, 575–581  
 Willemsen, J. 275–283  
 Willigers, J.M. 567–574  
 Wilmshurst, P. 297–303  
 Wilson, S.G. 83–90  
 Wurnig, C. 633–638  
  
 Yamamura, Y. 399–404  
 Yandle, T.G. 391–397  
 Yap, J.C.H. 55–58  
 Young, L.C. 291–295  
 Yudkin, J.S. 35–41  
  
 Zammit, V.C. 251–255  
 Zee, R.Y.L. 583–592  
 Zhao, S.-P. 323–329  
 Zhu, Z. 741–747  
 Zicha, J. 11–14, 263–268  
 Zidek, W. 741–747

## SUBJECT INDEX

First and last page numbers of papers to which entries refer are given. Page numbers marked with an asterisk refer to Reviews.

- Acetylcholine  
 isolated perfused kidney,  
 vasorelaxation 245–249
- Acquired immunodeficiency syndrome  
 malnutrition, tumour necrosis factor 461–467
- Acute diarrhoea  
 rotavirus infection, oral rehydration 469–477
- Acute renal failure  
 insulin-like growth factor-1 709–714
- Acute tubular necrosis  
 insulin-like growth factor-1 709–714
- Acute-phase protein  
 sepsis 663–669
- Adenosine receptor agonist  
 lipolysis, diabetic ketoacidosis 593–598
- S-Adenosylmethionine  
 tetrahydrofolates, biogenic  
 monoamines 697–702
- Adipose tissue  
 metabolism, ketone bodies 677–687
- Adolescents  
 blood pressure, exercise 425–432
- Adrenaline  
 physical and psychological stress 35–41
- $\beta$ -Adrenoceptor antagonist  
 chronic heart failure, Doppler  
 echocardiography 523–529  
 heart rate variability, computer  
 analysis 547–556
- $\beta$ -Adrenoceptors  
 metabolic rate, BRL 35135 331–337
- Adult respiratory distress syndrome  
 coronary artery bypass grafting,  
 corticosterone 49–53
- Ageing  
 haemoconcentration, cold 43–48
- Airway smooth muscle  
 asthma 647–652\*
- Albuminuria  
 pre-eclampsia 251–255
- Alcoholic myopathy  
 myosin heavy chain isoforms 433–440
- Aldosterone  
 diabetes, sodium 383–390  
 ouabain 391–397
- Aluminium excretion  
 urinary citrate 223–226
- Ambulatory arterial pressure  
 cardiac sympathetic control,  
 hypertension 209–215
- Amino acids  
 intestinal mucosa, starvation 653–662  
 thermogenesis, anaesthesia 611–618
- Anaemia  
 rheumatoid arthritis, cytokines 633–638
- Anaesthesia  
 amino acids, thermogenesis 611–618
- Antitrypsin  
 loop-sheet polymerization, cirrhosis 489–495
- Apolipoprotein E mutants  
 lipoproteins, hypertriglyceridaemia 323–329
- L-Arginine  
 pharmacology, immune system 123–132\*
- Arterial occlusion  
 Doppler ultrasound 557–565
- Arteriovenous exchange  
 adipose tissue, ketone bodies 677–687
- Arthritis  
 anaemia, cytokines 633–638
- Arthrogenic muscle inhibition  
 muscle strength, rehabilitation 305–310
- Articular afferents  
 arthrogenic muscle inhibition,  
 rehabilitation 305–310
- Asthma  
 airway smooth muscle 647–652\*  
 nasal resistance, bronchoconstriction 55–58  
 peak expiratory flow 645–646  
 peak expiratory flow, diurnal variation 59–65
- Atrial fibrillation  
 atrioventricular node, atropine 531–535

- Atrial natriuretic peptide
  - bronchi, phosphoramidon-sensitive protease inhibitor 291–295
  - diabetes, sodium 383–390
  - pharmacokinetics 723–730
  - receptor, sodium status 517–522
  - sympathetic nervous system 275–283
- Atrial natriuretic peptide 99–126
  - ethanol, osmolality 285–290
- Atrial natriuretic peptide 1–98
  - ethanol, osmolality 285–290
- Atrioventricular node
  - atrial fibrillation, atropine 531–535
- Atropine
  - atrioventricular node, atrial fibrillation 531–535
- Autonomic nervous system
  - heart rate variability, sympathetic activity 547–556
  - heart transplantation, heart rate variability 537–545
- Basal metabolic rate
  - protein turnover, chronic energy deficiency 441–446
- N*- $\alpha$ -Benzoyl-L-arginine ethyl ester
  - isolated perfused kidney, vasorelaxation 245–249
- Bioelectrical impedance analysis
  - body composition, human immunodeficiency virus 461–467
  - nutritional assessment, surgery 479–485
- Biogenic monoamines
  - tetrahydrofolates, S-adenosylmethionine 697–702
- Biopsy specimen
  - intestinal mucosa, free amino acids 653–662
- Blood flow
  - adipose tissue, ketone bodies 677–687
  - cirrhosis, nitric oxide 203–208
- Blood pressure
  - erythrocyte ion transport, plasma triacylglycerol 11–13
  - exercise, adolescents 425–432
  - muscular arteries, elasticity 567–574
  - ouabain 391–397
  - sleep apnoea syndromes 417–424
  - sympathetic nervous system, food intake 159–167
- Blood temperature
  - anaesthesia, amino acids 611–618
- Body composition
  - bioelectrical impedance analysis, human immunodeficiency virus 461–467
  - protein turnover, chronic energy deficiency 441–446
- Body mass index
  - low-density-lipoprotein receptor, hypertension 583–592
- Brain natriuretic peptide
  - natriuresis, pharmacokinetics 723–730
  - receptor, sodium status 517–522
- Branched-chain amino acids
  - protein metabolism, cancer 339–345
- BRL 35135
  - metabolic rate,  $\beta$ -adrenoceptors 331–337
- Bronchi
  - atrial natriuretic peptide, phosphoramidon-sensitive protease inhibitor 291–295
- Bronchoconstriction
  - nasal resistance, asthma 55–58
- Calcium
  - hypertension, cyclosporin 1–9\*
- Cancer
  - protein metabolism, branched-chain amino acids 339–345
- Cardiac surgery
  - lung injury, corticosterone 49–53
- Cardiac sympathetic control
  - ambulatory arterial pressure, hypertension 209–215
- Catecholamines
  - ouabain 391–397
- Cation transport
  - erythrocytes, nephrolithiasis 239–243
- Cerebrospinal fluid
  - dopamine  $\beta$ -hydroxylase, radioimmunoassay 149–158
- Chloride
  - absorption, intestine 511–516
- Cholesterol
  - cold, ageing 43–48
- Cholesterol crystallization
  - mucin, gallstones 75–82
- Cholesterol nucleation
  - mucin heterogeneity, gallstones 67–74
- Chronic energy deficiency
  - protein turnover, basal metabolic rate 441–446
- Chronic heart failure
  - $\beta$ -adrenoceptor antagonist, Doppler echocardiography 523–529
- Chronic renal failure
  - uric acid, intestinal secretion 511–516
- Chylomicrons
  - dietary fat, forearm exercise 169–175
- Circadian rhythm
  - atrial natriuretic peptide, ethanol 285–290
- Cirrhosis
  - antitrypsin, loop-sheet polymerization 489–495
  - blood flow, nitric oxide 203–208
  - inositol-specific phospholipase D 447–451

- Citrate  
 urinary aluminium excretion 223–226
- Cold  
 haemoconcentration, ageing 43–48
- Colon  
 uric acid secretion, chronic renal failure 511–516
- Computer analysis  
 R–R interval variability, hypertension 209–215
- Contractile dysfunction  
 myocytes, diabetes 257–262
- Coronary artery bypass grafting  
 lung injury, corticosterone 49–53
- Corticosterone  
 lung injury, coronary artery bypass grafting 49–53
- C-type natriuretic peptide  
 receptor, sodium status 517–522
- Cyclic AMP  
 sweat gland, cystic fibrosis 133–139
- Cyclic GMP  
 platelets, nitric oxide 195–202
- Cyclo-oxygenase  
 ulcerative colitis 619–626
- Cyclosporin  
 1,25-dihydroxyvitamin D, psoriasis 627–632  
 nephrotoxicity and hypertension 1–9\*  
 sweat gland 133–139
- Cystic fibrosis  
 sweat gland, cyclic AMP 133–139
- Cystic fibrosis transmembrane conductance regulator  
 sweat gland 133–139
- Cytokines  
 anaemia, rheumatoid arthritis 633–638  
 leucocytes, exercise 505–510  
 nitric oxide, polymorphonuclear leucocytes 411–415  
 protein-energy malnutrition 347–351
- Cystolic sodium  
 vascular smooth muscle, hypertension 741–747
- Decompression sickness  
 lung disease 297–303
- Density gradient ultracentrifugation  
 lipoproteins, hypertriglyceridaemia 323–329
- 1-Desamino-8-D-vasopressin  
 fibrinolysis 497–503
- Diabetes  
 blood pressure, exercise 425–432  
 myocytes, contractile dysfunction 257–262  
 sodium, renal and hormonal effects 383–390  
 vascular reactivity 689–695
- Diabetic ketoacidosis  
 lipolysis, adenosine receptor agonist 593–598
- Diarrhoea  
 rotavirus infection, oral rehydration 469–477
- Dietary fat  
 muscle, exercise 169–175
- Dietary sodium  
 platelet membrane fluidity, hypertension 263–268
- 1,25-Dihydroxyvitamin D  
 psoriasis, cyclosporin A 627–632
- Diuresis  
 cold, ageing 43–48
- Diuretics  
 oxalate transport, intestine 353–357
- Diurnal cycling  
 body nitrogen, protein intake 91–102, 103–118  
 nitrogen balance, stable isotopes 185–193
- Diurnal variation  
 peak expiratory flow, asthma 59–65
- Diving  
 decompression sickness 297–303
- Dopamine  $\beta$ -hydroxylase  
 cerebrospinal fluid, radioimmunoassay 149–158
- Doppler echocardiography  
 chronic heart failure,  $\beta$ -adrenoceptor antagonist 523–529
- Doppler ultrasound  
 arterial occlusion 557–565
- Drug resistance  
*Mycobacterium tuberculosis*, restriction fragment length polymorphism 749–751
- Duplex scanning  
 liver blood flow, 1-desamino-8-D-vasopressin 497–503
- Echocardiography  
 left ventricular hypertrophy, sleep apnoea syndromes 417–424
- Eicosanoids  
 ulcerative colitis 619–626
- Elasticity  
 variation, muscular arteries 567–574
- Endoscopy  
 intestinal mucosa, free amino acids 653–662
- Endothelin  
 excretion, renal tubular injury 703–707  
 vasculature, sepsis 359–374\*
- Endothelium  
 sepsis 359–374\*
- Endothelium-dependent relaxing factor  
 isolated perfused kidney, parathyroid hormone-related peptide 245–249
- Endotoxin shock  
 renal function, prostanoids 599–610

- Erythrocytes  
 cation transport, nephrolithiasis 239–243  
 ion transport, plasma triacylglycerol 11–13
- Erythropoietin  
 cytokines, rheumatoid arthritis 633–638
- Ethanol  
 atrial natriuretic peptide, osmolality 285–290
- Euglycaemic clamp technique  
 insulin resistance, heart failure 317–322
- Exercise  
 blood pressure, adolescents 425–432  
 haemodynamics, hypertension 27–34  
 leucocytes splenectomy 505–510
- Extracellular sodium  
 platelet membrane fluidity,  
 hypertension 263–268
- Extracellular volume expansion  
 renal papillary blood flow, nitric  
 oxide 405–409
- Extracellular water  
 bioelectrical impedance analysis,  
 surgery 479–485
- Factor X  
 cold, ageing 43–48
- Familial dysbetalipoproteinaemia  
 lipoproteins, apolipoprotein E  
 mutants 323–329
- Fasting  
 protein turnover, diurnal cycling 103–118
- Feeding  
 protein turnover, diurnal cycling 103–118
- Fetus  
 protein deficiency, hypertension 121, 217–222
- Fibrinogen  
 cold, ageing 43–48  
 platelets, pre-eclampsia 731–739
- Fibrinolysis  
 1-desamino-8-D-vasopressin 497–503
- Fibroblast proliferation  
 systemic sclerosis, insulin-like growth  
 factor-1 141–148
- Flow cytometry  
 platelet activation, pre-eclampsia 731–739
- Fluid therapy  
 acute diarrhoea, rotavirus infection 469–477
- Food intake  
 sympathetic nervous system,  
 microneuropathy 159–167
- Foramen ovale  
 decompression sickness 297–303
- Forearm blood flow  
 cirrhosis, nitric oxide 203–208
- Forearm exercise  
 dietary fat 169–175
- Forearm vascular resistance  
 lower body negative pressure, atrial natriuretic  
 peptide 275–283
- Free amino acids  
 intestinal mucosa, starvation 653–662
- Functional joint stability  
 rehabilitation 305–310
- Gallstones  
 mucin heterogeneity 67–74, 75–82
- Gastrointestinal function  
 sympathetic nervous system,  
 microneurography 159–167
- Gender differences  
 urinary kallikrein 227–231
- Glomerular filtration rate  
 pre-eclampsia 251–255
- Glomerular sclerosis  
 vasopressin 399–404
- Glucagon secretion  
 Zucker fatty rats 311–316
- Glucose  
 dietary fat, forearm exercise 169–175  
 muscle blood flow, microdialysis probe 15–25
- Glucose polymer  
 oral rehydration, acute diarrhoea 469–477
- Glucose tolerance test  
 insulin resistance, heart failure 317–322
- Glucose turnover  
 pregnancy, malaria 83–90
- Glucose uptake  
 adipose tissue, ketone bodies 677–687
- Glycerol  
 adipose tissue, noradrenaline 177–184
- [<sup>15</sup>N]Glycine  
 protein turnover, diurnal cycling 103–118
- Granulocytes  
 exercise, splenectomy 505–510
- Growth hormone  
 intracellular sodium, renin–angiotensin  
 system 233–237
- Guanylate cyclase  
 platelets, nitric oxide 195–202
- Haemoconcentration  
 cold, ageing 43–48
- Haemodynamics  
 1-desamino-8-D-vasopressin 497–503  
 hypertension, exercise 27–34
- Harmonic frequencies  
 arterial occlusion 557–565
- Heart failure  
 insulin resistance, mathematical  
 modelling 317–322



- Heart rate variability  
  heart transplantation, autonomic  
    reinnervation 537–545  
  sympathetic activity, computer analysis 547–556
- Heart transplantation  
  heart rate variability, autonomic  
    reinnervation 537–545
- Heat stress  
  myocardial protection 375–381
- Heat-shock proteins  
  myocardial protection 375–381
- Hepatitis  
  inositol-specific phospholipase D 447–451
- Hepatocellular carcinoma  
  inositol-specific phospholipase D 447–451
- Histamine  
  adult respiratory distress syndrome,  
    corticosterone 49–53  
  nasal resistance, asthma 55–58
- Human immunodeficiency virus  
  malnutrition, tumour necrosis factor 461–467
- 5-Hydroxytryptamine  
  sympathetic nervous system 269–273
- Hypertension  
  ambulatory arterial pressure, cardiac  
    sympathetic control 209–215  
  dopamine  $\beta$ -hydroxylase, cerebrospinal  
    fluid 149–158  
  erythrocyte ion transport, plasma  
    triacylglycerol 11–13  
  fetus, protein deficiency 121, 217–222  
  haemodynamics, exercise 27–34  
  low-density-lipoprotein receptor, plasma  
    triacylglycerol 583–592  
  platelets, membrane fluidity 263–268  
  pregnancy, albuminuria 251–255  
  renal failure, vasopressin 399–404  
  renin, frusemide 575–581  
  sleep apnoea syndromes 417–424  
  sodium, cyclosporin 1–9\*  
  vascular smooth muscle, cytosolic  
    sodium 741–747
- Hypertriglyceridaemia  
  apolipoprotein E mutants 323–329  
  erythrocyte ion transport, blood pressure 11–13
- Hypometabolism  
  anaesthesia, amino acids 611–618
- Hypothermia  
  anaesthesia, amino acids 611–618
- Hypoxic vasoconstriction  
  pulmonary circulation, technetium-99m 639–644
- Ileum  
  uric acid secretion, chronic renal  
    failure 511–516
- Immune system  
  L-arginine, pharmacology 123–132\*
- Indomethacin  
  renal function, uninephrectomy 715–721
- Infection  
  protein turnover 663–669
- Inositol-specific phospholipase D  
  disease 447–451
- Insulin  
  sympathetic nervous system, food  
    intake 159–167
- Insulin receptor  
  restriction fragment length polymorphism,  
    hypertension 583–592
- Insulin resistance  
  mathematical modelling, heart failure 317–322
- Insulin secretion  
  Zucker fatty rats 311–316
- Insulin-like growth factor-1  
  acute renal failure 709–714  
  fibroblast proliferation, systemic  
    sclerosis 141–148
- Interferon  
  anaemia, rheumatoid arthritis 633–638  
  nitric oxide, polymorphonuclear  
    leucocytes 411–415
- Interleukin  
  anaemia, rheumatoid arthritis 633–638  
  nitric oxide, polymorphonuclear  
    leucocytes 411–415  
  phospholipase A<sub>2</sub>, ulcerative colitis 619–626  
  protein synthesis, lymphocytes 671–675  
  protein-energy malnutrition 347–351
- Intermittent isometric exercise  
  muscle blood flow, microdialysis probe 15–25
- Intestinal mucosa  
  free amino acids, starvation 653–662
- Intestine  
  oxalate transport, thiazides 353–357
- Ischaemia–reperfusion  
  oxidative stress, liver 453–460
- Isoleucine  
  protein metabolism, cancer 339–345
- Isoprenaline  
  sweat gland, cystic fibrosis 133–139
- Jejunum  
  uric acid secretion, chronic renal  
    failure 511–516
- Ketoacidosis  
  lipolysis, adenosine receptor agonist 593–598
- Ketone bodies  
  metabolism, adipose tissue 677–687

- Kidney**  
 insulin-like growth factor-1 709–714  
 natriuretic peptide receptors, sodium status 517–522
- Labile protein reserves**  
 nitrogen balance, stable isotopes 185–193
- Lactate**  
 muscle blood flow, microdialysis probe 15–25
- Laser Doppler flowmetry**  
 renal papillary blood flow, nitric oxide 405–409
- Left ventricular hypertrophy**  
 echocardiography, sleep apnoea syndromes 417–424
- Leucine**  
 nitrogen balance, protein requirements 91–102  
 protein metabolism, cancer 339–345
- Leucocytes**  
 exercise, splenectomy 505–510
- Leukotriene C<sub>4</sub>**  
 ulcerative colitis 619–626
- Lipolysis**  
 adenosine receptor agonist, diabetic ketoacidosis 593–598  
 adipose tissue, noradrenaline 177–184
- Lipoproteins**  
 apolipoprotein E mutants, hypertriglyceridaemia 323–329
- Lipoxygenase**  
 ulcerative colitis 619–626
- Lithium clearance**  
 uninephrectomy, indomethacin 715–721
- Liver**  
 antitrypsin, loop-sheet polymerization 489–495  
 blood flow, 1-desamino-8-D-vasopressin 497–503  
 oxidative stress, surgical trauma 453–460
- Loop-sheet polymerization**  
 antitrypsin, cirrhosis 489–495
- Low-density-lipoprotein receptor**  
 restriction fragment length polymorphism, hypertension 583–592
- Lower body negative pressure**  
 forearm vascular resistance, atrial natriuretic peptide 275–283
- Lung disease**  
 decompression sickness 297–303
- Lung injury**  
 coronary artery bypass grafting, corticosterone 49–53
- Lymphocytes**  
 exercise, splenectomy 505–510  
 protein synthesis 671–675
- Macrophages**  
 1,25-dihydroxyvitamin D, cyclosporin A 627–632
- Malaria**  
 glucose turnover, pregnancy 83–90
- Malnutrition**  
 cytokine production 347–351  
 tumour necrosis factor, human immunodeficiency virus 461–467
- Mathematical modelling**  
 insulin resistance, heart failure 317–322
- Membrane fluidity**  
 platelets, hypertension 263–268
- Menstrual cycle**  
 urinary kallikrein, spironolactone 227–231
- Metabolic economy**  
 protein turnover, chronic energy deficiency 441–446
- Metabolic rate**  
 anaesthesia, amino acids 611–618  
 BRL 35135,  $\beta$ -adrenoceptors 331–337
- Methoxyhydroxyphenylglycol**  
 dopamine  $\beta$ -hydroxylase, cerebrospinal fluid 149–158
- Metoprolol**  
 chronic heart failure, Doppler echocardiography 523–529
- Microdialysis probe**  
 muscle blood flow, intermittent isometric exercise 15–25
- Microneurography**  
 sympathetic nervous system, food intake 159–167
- Monocytes**  
 exercise, splenectomy 505–510
- Mucin**  
 heterogeneity, gallstones 67–74
- Multisystem organ failure**  
 oxidative stress, liver 453–460
- Muscle**  
 dietary fat, exercise 169–175  
 metabolism, alcohol 433–440  
 protein metabolism, branched-chain amino acids 339–345
- Muscle atrophy**  
 alcohol 433–440  
 protein turnover, sepsis 663–669
- Muscle blood flow**  
 microdialysis probe, intermittent isometric exercise 15–25
- Muscle strength**  
 arthrogenic muscle inhibition, rehabilitation 305–310
- Muscular arteries**  
 elasticity, variation 567–574

- Mycobacterium tuberculosis*  
 drug resistance, restriction fragment length polymorphism 749–751
- Myocardial infarction  
 stress proteins 375–381
- Myocardial protection  
 stress proteins 375–381
- Myocytes  
 contractile dysfunction, diabetes 257–262
- Myosin heavy chain isoforms  
 alcohol 433–440
- Nadolol  
 metabolic rate,  $\beta$ -adrenoceptors 331–337
- Nasal resistance  
 bronchoconstriction, asthma 55–58
- Natriuresis  
 brain natriuretic peptide 723–730
- Natriuretic peptide receptor  
 kidney, sodium status 517–522
- Natriuretic peptides  
 pharmacokinetics 723–730
- Nephrolithiasis  
 cation transport, erythrocytes 239–243
- Nephropathy  
 blood pressure, adolescents 425–432
- Nephrotoxicity  
 renin–angiotensin system, cyclosporin 1–9\*
- Neutrophils  
 nitric oxide, cytokines 411–415
- Nitric oxide  
 blood flow, cirrhosis 203–208  
 hypertension, cyclosporin 1–9\*  
 isolated perfused kidney, parathyroid hormone-related peptide 245–249  
 platelets, pre-eclampsia 195–202  
 polymorphonuclear leucocytes, cytokines 411–415  
 renal papillary blood flow, extracellular volume expansion 405–409  
 vasculature, sepsis 359–374\*
- Nitric oxide synthetase  
 isolated perfused kidney, parathyroid hormone-related peptide 245–249
- N*<sup>G</sup>-Nitro-L-arginine methyl ester  
 isolated perfused kidney, vasorelaxation 245–249
- Nitrogen balance  
 diurnal cycling, stable isotopes 185–193  
 protein requirements, diurnal cycling 91–102
- Nitroprusside  
 platelets, pre-eclampsia 195–202
- Non-esterified fatty acids  
 dietary fat, forearm exercise 169–175
- Non-insulin-dependent diabetes mellitus  
 insulin and glucagon secretion 311–316
- Noradrenaline  
 blood flow, cirrhosis 203–208  
 dopamine  $\beta$ -hydroxylase, cerebrospinal fluid 149–158  
 isolated perfused kidney, parathyroid hormone-related peptide 245–249  
 lipolysis, adipose tissue 177–184  
 physical and psychological stress 35–41
- Nose  
 bronchoconstriction, asthma 55–58
- Nucleation time  
 mucin, gallstones 75–82
- Nutritional assessment  
 bioelectrical impedance analysis, surgery 479–485
- Nutritional status  
 tumour necrosis factor, human immunodeficiency virus 461–467
- Obstructive sleep apnoea  
 blood pressure 417–424
- Oral rehydration  
 acute diarrhoea, rotavirus infection 469–477
- Osmolality  
 atrial natriuretic peptide, ethanol 285–290
- Ouabain  
 vasoactive hormones 391–397
- Ouabain-like factor  
 diabetes, sodium 383–390
- Oxalate  
 sodium–potassium–chloride co-transport, nephrolithiasis 239–243
- Oxidative metabolism  
 anaesthesia, amino acids 611–618
- Oxidative stress  
 liver, surgical trauma 453–460
- Oxygen uptake  
 exercise, adolescents 425–432
- Parasympathetic nervous system  
 atrioventricular node, atrial fibrillation 531–535
- Parathyroid hormone-related peptide  
 isolated perfused kidney, vasorelaxation 245–249
- Parkinson's disease  
 dopamine  $\beta$ -hydroxylase, cerebrospinal fluid 149–158
- Peak expiratory flow  
 asthma 645–646  
 diurnal variation, asthma 59–65
- Phenylalanine  
 nitrogen balance, protein requirements 91–102  
 protein turnover, diurnal cycling 103–118
- Phosphoinositol-specific phospholipase D  
 disease 447–451

- Phospholipase A<sub>2</sub>  
interleukin-1, ulcerative colitis 619–626
- Phosphoramidon-sensitive protease inhibitor  
atrial natriuretic peptide, bronchi 291–295
- Physical stress  
platelet and plasma catecholamines 35–41
- Plasma renin activity  
diabetes, sodium 383–390
- Platelet activation  
pre-eclampsia, flow cytometry 731–739
- Platelet catecholamines  
stability, stress 35–41
- Platelet-activating factor  
ulcerative colitis 619–626
- Platelet-derived growth factor  
fibroblast proliferation, systemic sclerosis 141–148
- Platelets  
membrane fluidity, hypertension 263–268  
nitric oxide, pre-eclampsia 195–202
- cis*-Platinum  
renal tubular injury, urinary endothelin-1 703–707
- Pneumonia  
inositol-specific phospholipase D 447–451
- Polymorphonuclear leucocytes  
nitric oxide, cytokines 411–415
- Power spectrum analysis  
heart rate variability, transplantation 537–545
- Pre-eclampsia  
albuminuria 251–255  
platelet activation, flow cytometry 731–739  
platelets, nitric oxide 195–202  
renin, frusemide 575–581
- Pregnancy  
glucose turnover, malaria 83–90  
hypertension, albuminuria 251–255  
platelet activation, flow cytometry 731–739  
renin, frusemide 575–581
- Prostaglandins  
cyclosporin, nephrotoxicity 1–9\*  
renal function, uninephrectomy 715–721  
ulcerative colitis 619–626
- Prostanoids  
renal function, endotoxin shock 599–610
- Protein C  
cold, ageing 43–48
- Protein content  
intestinal mucosa, starvation 653–662
- Protein deficiency  
fetus, hypertension 121, 217–222
- Protein metabolism  
branched-chain amino acids, cancer 339–345
- Protein requirements  
nitrogen balance, diurnal cycling 91–102  
nitrogen balance, stable isotopes 185–193
- Protein synthesis  
lymphocyte activation 671–675
- Protein turnover  
basal metabolic rate, chronic energy deficiency 441–446  
diurnal cycling, protein intake 103–118  
sepsis 663–669
- Protein-energy malnutrition  
cytokine production 347–351
- Proteinase inhibitor  
loop-sheet polymerization, cirrhosis 489–495
- Proteinuria  
renal failure, vasopressin 399–404
- Psoriasis  
1,25-dihydroxyvitamin D, cyclosporin A 627–632
- Psychological stress  
platelet and plasma catecholamines 35–41
- Pulmonary circulation  
hypoxic vasoconstriction, technetium-99m 639–644
- Pulmonary fibrosis  
systemic sclerosis, insulin-like growth factor-1 141–148
- Quinine  
glucose turnover, pregnancy 83–90
- Raynaud's phenomenon  
5-hydroxytryptamine 269–273
- Reactive oxygen species  
liver, surgical trauma 453–460
- Rehabilitation  
muscle strength, arthrogenic muscle inhibition 305–310
- Reinnervation  
heart transplantation, heart rate variability 537–545
- Renal disease  
dopamine  $\beta$ -hydroxylase, cerebrospinal fluid 149–158
- Renal failure  
insulin-like growth factor-1 709–714  
vasopressin 399–404
- Renal function  
endotoxin shock, prostanoids 599–610
- Renal haemodynamics  
uninephrectomy, indomethacin 715–721
- Renal papillary blood flow  
extracellular volume expansion, nitric oxide 405–409
- Renal tubular injury  
urinary endothelin-1, *cis*-platinum 703–707
- Renin  
ouabain 391–397  
pre-eclampsia, frusemide 575–581

- Renin-angiotensin system  
 cyclosporin, nephrotoxicity 1-9\*  
 intracellular sodium, growth hormone 233-237
- Respiratory sinus arrhythmia  
 heart transplantation, autonomic  
 reinnervation 537-545
- Restriction fragment length polymorphism  
 low-density-lipoprotein receptor,  
 hypertension 583-592  
*Mycobacterium tuberculosis*, drug  
 resistance 749-751
- Retinal blood flow  
 diabetes 689-695
- Rheumatoid arthritis  
 anaemia, cytokines 633-638
- Rotavirus  
 acute diarrhoea, oral rehydration 469-477
- R-R interval variability  
 ambulatory arterial pressure,  
 hypertension 209-215
- Sabra rats  
 platelets, membrane fluidity 263-268
- Salbutamol  
 metabolic rate,  $\beta$ -adrenoceptors 331-337
- Salt  
 platelet membrane fluidity,  
 hypertension 263-268
- Seasonal mortality  
 thrombosis, ageing 43-48
- Sepsis  
 endothelium 359-374\*  
 protein turnover 663-669  
 renal function, prostanoids 599-610
- Sleep apnoea syndromes  
 blood pressure 417-424
- Smoking  
 decompression sickness 297-303
- Snoring  
 blood pressure 417-424
- Sodium  
 hypertension, cyclosporin 1-9\*  
 pre-eclampsia, frusemide 575-581  
 renal and hormonal effects, diabetes 383-390  
 vascular smooth muscle, hypertension 741-747
- Sodium excretion  
 renal papillary blood flow, nitric  
 oxide 405-409
- Sodium leak  
 blood pressure, plasma triacylglycerol 11-13
- Sodium-lithium countertransport  
 diabetes 383-390
- Sodium metabolism  
 growth hormone, renin-angiotensin  
 system 233-237
- Sodium-potassium co-transport  
 blood pressure, plasma triacylglycerol 11-13  
 diabetes 383-390
- Sodium-potassium pump  
 blood pressure, plasma triacylglycerol 11-13
- Sodium-potassium-chloride co-transport  
 erythrocytes, nephrolithiasis 239-243
- Sodium status  
 natriuretic peptide receptors, kidney 517-522
- Soluble interleukin-2 receptor  
 anaemia, rheumatoid arthritis 633-638
- Soluble tumour necrosis factor receptor  
 malnutrition, human immunodeficiency  
 virus 461-467
- Somatomedin  
 acute renal failure 709-714
- Spironolactone  
 urinary kallikrein, menstrual cycle 227-231
- Splenectomy  
 leucocytes, exercise 505-510
- Stable isotopes  
 nitrogen balance, protein requirements 91-102  
 protein turnover, diurnal cycling 103-118
- Starvation  
 free amino acids, intestinal mucosa 653-662  
 metabolism, adipose tissue 677-687
- Stress  
 platelet and plasma catecholamines 35-41
- Stress proteins  
 myocardial protection 375-381
- Surgery  
 nutritional assessment, bioelectrical impedance  
 analysis 479-485  
 oxidative stress, liver 453-460
- Sweat gland  
 cyclic AMP, cystic fibrosis 133-139
- Sympathetic nervous system  
 atrial natriuretic peptide 275-283  
 food intake, microneurography 159-167  
 heart rate variability, computer  
 analysis 547-556  
 5-hydroxytryptamine 269-273
- Sympatho-vagal balance  
 hypertension 209-215
- Systemic sclerosis  
 fibroblast proliferation, insulin-like growth  
 factor-1 141-148
- Technetium-99m  
 pulmonary circulation, hypoxic  
 vasoconstriction 639-644
- Tetrahydrofolates  
 biogenic monoamines,  
*S*-adenosylmethionine 697-702

- Thermogenesis  
  amino acids, anaesthesia 611–618
- Thiazides  
  oxalate transport, intestine 353–357
- Thrombosis  
  cold, ageing 43–48
- Total body water  
  bioelectrical impedance analysis,  
  surgery 479–485
- Total parenteral nutrition  
  protein metabolism, cancer 339–345
- Triacylglycerol  
  dietary fat, forearm exercise 169–175  
  erythrocyte ion transport, blood pressure 11–13  
  low-density-lipoprotein receptor,  
  hypertension 583–592
- Tryptase  
  adult respiratory distress syndrome,  
  corticosterone 49–53
- Tuberculosis  
  drug resistance, restriction fragment length  
  polymorphism 749–751
- Tubular necrosis  
  insulin-like growth factor-1 709–714
- Tumour  
  L-arginine, pharmacology 123–132\*  
  protein metabolism, branched-chain amino  
  acids 339–345
- Tumour necrosis factor  
  anaemia, rheumatoid arthritis 633–638  
  malnutrition, human immunodeficiency  
  virus 461–467  
  protein-energy malnutrition 347–351
- Tyramine  
  sympathetic nervous system,  
  5-hydroxytryptamine 269–273
- Tyrosine  
  protein turnover, diurnal cycling 103–118
- Ulcerative colitis  
  interleukin-1, phospholipase A<sub>2</sub> 619–626
- Uninephrectomy  
  renal function, indomethacin 715–721
- Uric acid  
  intestinal secretion, chronic renal  
  failure 511–516
- Urinary aluminium excretion  
  urinary citrate 223–226
- Urinary citrate  
  urinary aluminium excretion 223–226
- Urinary endothelin-1  
  renal tubular injury, *cis*-platinum 703–707
- Urinary kallikrein  
  gender differences 227–231
- Vagal activity  
  heart rate variability, computer  
  analysis 547–556
- Valine  
  protein metabolism, cancer 339–345
- Valsalva manoeuvre  
  Doppler ultrasound 557–565
- Vascular reactivity  
  diabetes 689–695
- Vascular smooth muscle  
  cytosolic sodium, hypertension 741–747
- Vasculature  
  endothelin, sepsis 359–374\*
- Vasodilatation  
  forearm, atrial natriuretic peptide 275–283
- Vasopressin  
  renal failure 399–404
- Vasorelaxation  
  isolated perfused kidney, parathyroid hormone-  
  related peptide 245–249
- Vein size  
  cirrhosis, nitric oxide 203–208
- Ventricular rhythm  
  atrial fibrillation, atropine 531–535
- Verapamil  
  isolated perfused kidney,  
  vasorelaxation 245–249
- Vesicle leakage  
  mucin, gallstones 75–82
- Volume expansion  
  renal papillary blood flow, nitric  
  oxide 405–409
- Wasting  
  tumour necrosis factor, human  
  immunodeficiency virus 461–467
- Working capacity  
  skeletal muscle, alcohol 433–440
- Zucker fatty rats  
  insulin and glucagon secretion 311–316