

PUBLISHED BY  
THE MEDICAL RESEARCH SOCIETY AND THE BIOCHEMICAL SOCIETY

© The Medical Research Society and the Biochemical Society 1989  
ISSN 0143-5221

Printed in Great Britain by Whitstable Litho Ltd, Whitstable, Kent

# ACKNOWLEDGMENTS

The Editorial Board of *Clinical Science* gratefully acknowledges the assistance given by the following referees during the year 1988.

- Aaronson, P.  
Abdel-Rahman, A.R.A.  
Aber, G.M.  
Acheson, K.J.  
Adams, J.F.  
Adams, L.  
Adu, D.  
Alberti, K.G.M.M.  
Alvestrand, A.  
Amiel, S.  
Anderson, J.V.  
Angell-James, J.E.  
Appleton, D.R.  
Ash, S.A.  
Atherton, J.C.  
Atkinson, M.  
Atlas, S.A.  
Axon, A.T.R.
- Badoer, E.  
Ball, S.G.  
Balment, R.J.  
Band, D.M.  
Baraldi, M.  
Barer, G.R.  
Barnes, P.  
Barnett, D.B.  
Baron, D.N.  
Bateman, D.N.  
Bates, P.  
Baylis, P.H.  
Belch, J.J.F.  
Belchetz, P.E.  
Bennet, W.M.  
Bennett, E.D.  
Bennett, T.  
Berg, K.  
Besser, G.M.  
Betteridge, J.  
Birchall, J.  
Boughton, B.J.  
Bouloux, P.  
Boulton, A.J.M.  
Brain, S.  
Brand, S.C.  
Brearley, C.J.  
Brody, M.J.  
Broughton-Pipkin, F.  
Brown, J.  
Brown, S.B.  
Bruckdorfer, K.R.  
Brunner, H.R.  
Bulow, J.  
Bunch, C.
- Burden, A.C.  
Burnett, D.  
Calam, J.  
Calverley, P.M.A.  
Cameron, I.R.  
Campbell, E.J.M.  
Campbell, I.T.  
Candy, D.  
Caro, C.G.  
Cattell, W.R.  
Catterall, J.R.  
Causon, R.C.  
Cederblad, G.  
Challis, R.A.J.  
Chanarin, I.  
Chapel, H.M.  
Chapman, R.W.  
Chilvers, E.R.  
Christensen, N.J.  
Christie, W.W.  
Chung, F.  
Clarke, R.W.  
Clausen, T.  
Clelland, J.  
Cloix, J.-F.  
Cobbe, S.  
Cochrane, G.M.  
Cockcroft, A.  
Cohen, J.  
Cohen, R.D.  
Cole, P.J.  
Coleman, R.  
Collins, P.  
Connell, J.M.C.  
Conway, F.J.  
Coote, J.H.  
Corrall, R.J.  
Cowan, J.C.  
Cranston, W.  
Cryer, P.E.  
Culling, W.  
Cummin, A.R.C.  
Cumming, A.D.  
Cumming, G.  
Cundy, T.  
Cuss, F.M.  
Dale, G.  
Daley Yates, P.T.  
Dascombe, M.J.  
Davenport, A.P.  
Davies, M.J.  
Davison, J.M.  
Dawes, J.
- Debnam, E.S.  
de Wardener, H.E.  
Dobbs, S.M.  
Dominiczak, A.  
Dooley, J.  
Dormandy, J.  
Eckland, D.J.A.  
Edwards, R.H.T.  
Edwards, R.J.  
Elia, M.  
Elias, E.  
Elliot, H.  
Ellory, J.C.  
El Nahas, A.M.  
Elstein, M.  
Emery, P.W.  
Esler, M.  
Ewing, D.  
Farthing, M.  
Fawcett, P.R.W.  
Feehally, J.  
Feher, M.  
Fell, G.S.  
Fellows, I.W.  
Ferguson, A.  
Ferriss, J.B.  
Firth, J.D.  
Fitzsimons, J.J.  
Fletcher, J.  
Foale, R.  
Folkow, B.  
Foote, J.W.  
Forbes, A.  
Fox, K.A.A.  
Franks, S.  
Frayn, K.N.  
Fritz, H.  
Funder, J.W.  
Furst, P.  
Ganten, D.  
Gardiner, S.M.  
Gardner, M.L.G.  
Garland, H.O.  
Garlick, P.J.  
Garrett, J.R.  
Garrow, J.  
Geddes, D.  
Gemmell, C.  
Gibson, G.J.  
Gokal, R.  
Goldberg, A.  
Goode, A.W.
- Goodship, T.H.J.  
Gove, C.  
Gray, R.S.  
Greaves, M.  
Greening, A.  
Griffiths, E.  
Grimble, G.  
Haddy, F.J.  
Hall, G.M.  
Hall, J.A.  
Halliday, D.  
Hampton, I.F.G.  
Hardman, M.  
Hardy, S.J.S.  
Harper, A.E.  
Harrap, S.B.  
Hartley, G.  
Haslam, P.L.  
Haslett, C.  
Hastewell, J.G.  
Hawkins, P.N.  
Haylor, J.  
Hayslett, J.  
Heagerty, A.M.  
Heath, D.A.  
Heatley, R.V.  
Heaton, A.  
Henderson, B.  
Heptinstall, S.  
Herbert, J.  
Higgs, C.M.B.  
Hill, J.  
Hilton, P.J.  
Himsworth, R.L.  
Hockaday, T.D.R.  
Holgate, S.T.  
Hommel, E.  
Hornych, A.  
Hosker, J.  
Howell, S.L.  
Huehns, E.R.  
Hughes, A.D.  
Hughes, J.M.B.  
Hughes, M.  
Hughes, R.D.  
Hughes, R.E.  
Hull, D.  
Hutchinson, W.L.  
Imms, F.J.  
Ind, P.W.  
Isles, C.G.
- Jackson, D.  
Jackson, M.J.  
Jackson, R.L.  
Jacyna, M.R.  
James, O.F.W.  
James, W.P.T.  
Jardine, A.  
Jarrett, R.J.  
Jeffrey, R.F.  
Jepson, M.M.  
Johansson, B.-L.  
Johns, E.J.  
Johnson, A.W.  
Johnston, A.  
Johnston, D.G.  
Johnstone, R.W.G.  
Jones, C.  
Jones, D.A.  
Jones, N.L.  
Jones, P.W.  
Jung, R.  
Kalsheker, N.  
Kanis, J.A.  
Karemaker, J.M.  
Karim, F.  
Kay, J.D.S.  
Kellett, G.L.  
Kendall, M.J.  
Kennedy, L.  
Knapp, M.F.  
Kooner, J.  
Kopelman, P.G.  
Kopple, J.D.  
Korsgaard, N.  
Kostner, G.  
Kramps, H.  
Kuksis, A.  
Laker, M.F.  
Lane, D.  
Langman, M.J.  
Lant, A.  
Lassen, N.A.  
Leaning, M.S.  
Lease, H.J.  
Lebrec, D.  
Leckie, B.J.  
Ledingham, J.G.G.  
Lee, M.R.  
Lee, T.  
Leese, H.J.  
Leonard, J.V.  
Lever, A.F.  
Lewis, B.

- Lewis, M.J.  
 Leyssac, P.P.  
 Lipsitz, L.A.  
 Little, R.A.  
 Livne, A.  
 Lobley, G.  
 Lockhart, A.  
 Lund, P.
- MacClean, D.  
 MacDermot, J.  
 MacFarlane, G.T.  
 MacGregor, G.A.  
 MacMathuna, P.  
 MacNee, W.  
 Maguire, G.  
 Mahler, R.  
 Man in te Veld, A.  
 Manning, A.  
 Mansell, P.I.  
 Marshall, J.  
 Martin, J.F.  
 Mary, D.A.S.G.  
 Mason, M.J.  
 Matthews, D.R.  
 Matthias, C.J.  
 Maughan, R.J.  
 Maxwell, D.C.  
 McCarthy, D.  
 McColl, K.  
 McCormack, D.  
 McFarlane, I.G.  
 McGivan, J.D.  
 McGregor, K.H.  
 McHardy, G.V.R.  
 McIntyre, N.  
 McKenna, T.  
 McKinnes, G.  
 McPherson, M.A.  
 McVicar, A.  
 McWilliam, P.N.  
 Medbak, S.  
 Mendelsohn, F.A.O.  
 Meyer, P.  
 Milligan, D.W.  
 Mills, I.H.  
 Millward, B.A.  
 Mimran, A.  
 Mitchell, S.C.  
 Moniz, C.  
 Monson, J.P.  
 Moorhead, J.F.
- Moreland, T.A.  
 Murphy, C.  
 Myant, N.B.  
 Morgan, M.Y.  
 Morice, A.H.  
 Morris, R.C., Jr  
 Morrison, H.M.  
 Morton, J.J.  
 Mowat, A.  
 Moyses, C.
- Nahorski, S.R.  
 Nash, G.  
 Natrass, M.  
 Neale, G.  
 Newham, D.  
 Newman, S.P.  
 Newsholme, E.A.  
 Ng, L.  
 Nimmo, I.A.  
 Noble, A.  
 Northfield, T.  
 Nye, P.C.G.
- O'Brien, E.  
 Ockleford, C.D.  
 O'Gorman, D.  
 O'Hare, J.P.  
 Oliveira, D.B.  
 Orchard, C.H.  
 Osterby, R.
- Panos, M.  
 Parker, K.H.  
 Parsons, D.  
 Parving, H.-H.  
 Pasvol, G.  
 Patrick, J.M.  
 Patterson, C.R.  
 Pearson, J.D.  
 Penny, W.J.  
 Perrett, D.  
 Peters, T.J.  
 Petrie, J.C.  
 Potts, D.J.  
 Poulter, L.  
 Pounder, R.  
 Powell-Tuck, J.  
 Puddey, I.B.
- Puschett, J.  
 Pye, S.
- Radda, G.K.  
 Raine, A.E.G.  
 Rankin, A.J.  
 Rawbone, R.G.  
 Reckless, J.  
 Rees, A.J.  
 Rees, J.  
 Reichen, J.  
 Reid, J.  
 Reid, W.  
 Rennie, M.J.  
 Richards, A.M.  
 Riemersma, R.  
 Robinson, B.  
 Rognes, B.C.  
 Rogues, B.  
 Rothwell, N.J.  
 Roulston, J.E.  
 Rubin, P.C.  
 Rudman, D.  
 Rumsby, M.G.  
 Russell, G.I.
- Saklatvala, J.  
 Sandercock, P.A.G.  
 Saunders, A.  
 Schachter, M.  
 Schatzmann, J.  
 Schoner, W.  
 Schoolwerth, A.  
 Schroter, R.C.  
 Scott, A.R.  
 Scott, J.  
 Sebastian, A.  
 Seckl, J.R.  
 Seed, M.  
 Segal, A.  
 Segal, S.  
 Semple, P.F.  
 Semple, S.J.G.  
 Shale, D.  
 Shannon, R.P.  
 Sherwood, T.  
 Shirley, D.G.  
 Shore, A.C.  
 Short, A.H.  
 Shuttleworth, A.  
 Sibley, C.P.  
 Sikora, K.
- Simchowitz, L.  
 Simmons, N.L.  
 Singer, D.R.J.  
 Smith, G.  
 Smith, P.H.  
 Snashall, P.D.  
 Snow, H.M.  
 Solomon, L.  
 Sonksen, P.H.  
 Soutar, A.K.  
 Spence, V.A.  
 Stanley, N.N.  
 Stanton, B.  
 Steel, C.M.  
 Stephenson, F.A.  
 Steward, M.C.  
 Stewart, G.W.  
 Stock, M.J.  
 Stokes, M.  
 Stradling, J.R.  
 Struthers, A.D.  
 Stuart, J.  
 Stubbs, M.  
 Sudlow, M.F.  
 Sugden, M.C.  
 Sugden, P.H.  
 Summerill, R.  
 Sutters, M.  
 Swainson, C.P.  
 Swales, J.D.
- Taskinen, M.-R.  
 Taylor, C.M.  
 Taylor, G.  
 Taylor, R.  
 Thakkar, R.V.  
 Thesloff, I.  
 Thom, S.  
 Thomas, P.  
 Thomas, T.H.  
 Thompson, C.  
 Thompson, M.  
 Thompson, R.P.H.  
 Thomsen, K.  
 Thomson, N.C.  
 Thurston, H.  
 Tiribelli, C.  
 Tomkins, A.  
 Tomson, C.R.V.  
 Tooke, J.E.  
 Tournier, J.M.  
 Tree, M.  
 Turner, N.
- Unger, T.
- Vallotton, M.B.  
 Vasdev, S.C.  
 Vernon, R.G.  
 Verspaget, H.  
 Vessby, B.  
 Viberti, G.C.  
 Visser, T.J.
- Wahle, K.W.J.  
 Walker, J.  
 Walker, M.G.  
 Walker, P.D.  
 Walls, J.  
 Walter, S.J.  
 Warnes, T.W.  
 Warren, J.  
 Watson, M.  
 Watt, P.  
 Weetman, A.P.  
 Weir, D.  
 Weissberg, P.L.  
 Welbourne, T.  
 Whiting, P.H.  
 Widdicombe, J.T.  
 Wilcox, R.G.  
 Wilkins, M.R.  
 Wilkinson, S.P.  
 Will, E.J.  
 Williams, A.  
 Williams, B.C.  
 Williams, C.  
 Williams, S.R.  
 Wimalawansa, S.J.  
 Winterton, S.J.  
 Wiseman, M.  
 Woo, P.  
 Wood, J.A.  
 Woodhead, S.  
 Wootton, R.  
 Wootton, S.A.  
 Worwood, M.  
 Wraight, E.P.  
 Wray, S.  
 Wynick, D.
- Yates, M.S.  
 York, D.  
 Young, A.  
 Young, E.  
 Young, R.J.  
 Zierler, K.

# Volume 77

## AUTHOR INDEX

- Adeoya, A.S. 395-400  
Adler, A.J. 463-466  
Airlie, M.A.A. 431-437  
Akabane, S. 389-394  
Albert, J.D. 113-120  
Alberti, K.G.M.M. 383-388,  
413-416  
Al-Shamma, Y.M.H. 547-553  
Anderson, D.C. 369-374  
Antman, K.H. 501-507  
Argilés, J.M. 357-364  
Arisz, L. 105-111  
Arteche, E. 473-478  
Atlas, S.A. 177-182  
Aynsley-Green, A. 413-416
- Badaloo, A. 93-97  
Bahner, U. 529-534  
Balzan, S. 375-381  
Bannister, R. 85-92, 623-628  
Barer, G.R. 515-520  
Barnes, P.J. 439-443, 671-676  
Barrett, R.J. 145-147  
Barrow, L. 259-263  
Bartlett, K. 413-416  
Bassendine, M.F. 365-368  
Beasley, R. 495-500  
Beeley, J.M. 509-514  
Bell, G.M. 177-182  
Berenson, M.M. 473-478  
Berlyne, G.M. 463-466  
Bernstein, R.K. 177-182  
Bhuiyan, A.K.M.J. 413-416  
Bing, R.F. 395-400  
Biver, P. 375-381  
Bland, J.M. 171-176  
Bloom, S.R. 85-92, 623-628  
Bond, J. 61-67  
Boppana, V.K. 637-641  
Botta, D. 611-616  
Boulton-Jones, J.M. 521-527  
Braillon, A. 7-9  
Brammar, W.J. 629-636  
Brena, A. 501-507  
Brennan, M.F. 113-120  
Brindley, D.N. 453-461  
Britton, J.R. 467-471  
Brooks, D.P. 637-641  
Brown, M.A. 599-604  
Brown, M.J. 129-131
- Bruijnzeel, P.L.B. 297-304  
Buckley, M.G. 253-258, 573-579  
Bund, S.J. 167-170  
Burnett, D. 35-41  
Butler, P.C. 413-416  
Bylund-Fellenius, A.-C. 485-493
- Cai, Y.N. 515-520  
Calder, G.A. 329-336  
Cappuccio, F.P. 337-342  
Carnovali, M. 217-222  
Caruso, C. 463-466  
Castellani, S. 217-222  
Cerini, R. 7-9  
Chamba, A. 35-41  
Chen, J.-L. 217-222, 535-539  
Childs, C. 425-429  
Christensen, N.J. 85-92, 149-155  
Clarke, B.F. 589-597  
Clarke, G.M. 561-566  
Clayton, B.A. 495-500  
Coe, S.A. 69-76  
Colston, K.W. 171-176  
Coppack, S.W. 663-670  
Cortelli, P. 623-628  
Coruzzi, P. 479-484  
Costas, L.J.V. 407-411  
Cowie, M.R. 223-228  
Crea, A.E.G. 195-203  
Critchley, D.R. 259-263  
Culling, W. 229-236
- da Costa, D.F. 85-92  
Dagher, G. 213-216  
Dahllof, A.-G. 485-493  
Damjær Nielsen, M. 319-322  
Davenport, A.P. 129-131  
Davenport, P.J. 425-429  
Decaux, G. 351-355  
de Jong, P.E. 55-60  
Del Greco, F. 617-621  
Del Rosso, A. 213-216  
de Moor, E.A.M. 105-111  
de Vasconcelos, P.R.L. 61-67  
de Zeeuw, D. 55-60  
Dhar, H. 663-670  
Dimitriadis, G.D. 61-67  
Dixon, M.S. 229-236  
Doise, B. 213-216
- Dominiczak, A.F. 183-188  
Dudley, C. 417-423  
Dundas, C.R. 651-655  
Durrington, P.N. 369-374
- Eadington, D. 589-597  
Eder, J.P. 501-507  
Eremin, O. 651-655  
Esler, M.D. 605-610  
Essen, P. 329-336  
Evans, R.D. 357-364  
Evans, T.W. 439-443  
Ewing, D.J. 589-597
- Fantoni, M. 375-381  
Farinaro, E. 337-342  
Ferguson, K. 651-655  
Ferwana, O.S. 77-84  
Firth, J.D. 657-661  
Fittes, D. 365-368  
Flenley, D.C. 431-437  
Fletcher, A. 167-170  
Fosbraey, P. 85-92  
Frayn, K.N. 663-670  
Fribery, P. 605-610  
Fukuda, K. 567-572  
Fukui, K. 643-650  
Fussey, S.P.M. 365-368
- Gadsbøll, N. 319-322  
Garlick, P.J. 329-336, 651-666  
Geiger, H. 529-534  
Genovesi-Ebert, A. 375-381  
Ghielmi, S. 479-484  
Ghione, S. 375-381  
Gillespie, C. 43-48  
Giorgione, N. 337-342  
Goode, A.W. 133-138  
Goodship, T.H.J. 445-451  
Gorden, C. 369-374  
Gove, C. 657-661  
Graves, S.W. 501-507  
Greenhalgh, P.M. 121-127  
Griffin, H.E. 637-641  
Grunstein, R.R. 407-411
- Hadengue, A. 7-9  
Hainsworth, R. 547-553

- Hammarqvist, F. 611-616  
 Hartley, B. 43-48  
 Hartley, G.H. 265-272, 445-451  
 Haskard, D. 195-203  
 Heagerty, A.M. 167-170  
 Heaton, A. 383-388  
 Heidland, A. 529-534  
 Heseltine, D. 265-272  
 Heys, S.D. 651-655  
 Hickish, T. 171-176  
 Higgs, N.B. 161-166  
 Hill, S.L. 35-41  
 Hilsted, J. 149-155  
 Hilton, P.J. 189-194  
 Hinks, L.J. 495-500  
 Hirata, Y. 643-650  
 Hockaday, T.D.R. 663-670  
 Hoek, F.J. 105-111  
 Høilund-Carlsen, P.F. 319-322  
 Holgate, S.T. 495-500  
 Holstein-Rathlou, N.-H. 311-318  
 Hori, S. 567-572  
 Horton, C.E. 195-203  
 Houben, L.A.M.J. 297-304  
 Humphreys, S.M. 663-670  
 Hupe, J. 529-534
- Iacone, R. 337-342  
 Iacoviello, L. 337-342  
 Imanishi, M. 389-394  
 Ishii, M. 643-650  
 Ishimitsu, T. 643-650  
 Ishola, M. 369-374  
 Ito, K. 389-394
- Jackson, A.A. 93-97  
 Jahoor, F. 93-97  
 James, G.D. 177-182  
 James, O.F.W. 265-272, 365-368  
 Janssen, W.M.T. 55-60  
 Jeacock, J. 369-374  
 Jeevanandam, M. 113-120  
 Jenkins, A.P. 555-559  
 Jennings, G.L. 605-610  
 Jensen, L.S. 205-211  
 Jepson, M.M. 13-20  
 Jivegard, L. 49-54  
 Jivegard, L. 49-54  
 Johnston, D.G. 383-388  
 Jones, J.R. 121-127  
 Jossa, F. 337-342  
 Juhl, C.O. 205-211
- Kageyama, Y. 567-572  
 Kamper, A.L. 311-318  
 Kangawa, K. 643-650  
 Katahira, K. 29-34
- Kawamura, M. 389-394  
 Kawana, Y. 389-394  
 Keavey, P. 445-451  
 Kendall, M.J. 281-285  
 Khazanchi, R.K. 69-76  
 Kimura, K. 643-650  
 King, R.F.G. 133-138, 343-349  
 Kinter, L.B. 637-641  
 Kiyose, H. 643-650  
 Knight, K.R. 69-76  
 Knox, A.J. 467-471  
 Kohara, K. 29-34  
 Koomen, G.C.M. 105-111  
 Kooner, J.S. 623-628  
 Koopman, M.G. 105-111  
 Koshy, A. 7-9  
 Kranstrup, I.L. 319-322  
 Krediet, R.T. 105-111  
 Kreiger, J. 407-411  
 Kuramochi, M. 389-394  
 Kurosawa, Y. 643-650  
 Kyan-Aung, U. 195-203
- Laks, L. 407-411  
 Lallau, G. 213-216  
 Laragh, J.H. 177-182  
 Larsen, S. 149-155  
 Lebrec, D. 7-9  
 Ledingham, J.G.G. 657-661  
 Lee, M.R. 281-285  
 Lee, S. 7-9  
 Lee, T.H. 195-203  
 Lefebvre, J. 213-216  
 Legaspi, A. 113-120  
 Leighton, B. 61-67  
 Leonelli, F.M. 561-566  
 Leong, L.L. 561-566  
 Levick, M.P. 323-327  
 Lewis, H.M. 281-285  
 Leyssac, P.P. 311-318  
 Lightman, S.L. 589-597  
 Little, R.A. 425-429  
 Littler, W.A. 11-12  
 Lloyd, S. 139-144  
 Lobley, G.E. 329-336  
 Lockhart, A. 237-244  
 Lovelock, M. 323-327  
 Lowe, S.A. 599-604  
 Lowry, S.F. 113-120  
 Lundgren, F. 485-493
- MacCormack, D. 671-676  
 Macdonald, I.A. 245-252, 265-272  
 MacGregor, G.A. 253-258, 573-579  
 Main, J. 157-160  
 Mallon, F.M. 637-641  
 Maltby, N.H. 671-676
- Mancini, M. 337-342  
 Mansell, P.I. 245-252  
 Mansy, H. 445-451  
 Marin, J.J.G. 473-478  
 Markandu, N.D. 253-258, 573-579  
 Marsac, J. 237-244  
 Maruing, J. 319-322  
 Mary, D.A.S.G. 1-5  
 Masotti, G. 217-222  
 Mathias, C.J. 85-92, 623-628  
 Matsuo, H. 643-650  
 Matsuoka, H. 643-650  
 Matsushima, Y. 389-394  
 Matthews, D.E. 113-120  
 Matthews, J. 265-272  
 Maxton, D.G. 401-406  
 Maxwell, J.D. 171-176  
 McArthur, S. 509-514  
 McCann, J.J. 69-76  
 McCormack, D.G. 439-443  
 McCulloch, R.K. 99-103  
 McDougall, J.G. 407-411  
 McIntosh, C.M. 85-92  
 McMahan, M.J. 343-349  
 McNurlan, M.A. 329-336  
 Menzies, I.S. 401-406  
 Meredith, I.T. 605-610  
 Mikami, H. 29-34  
 Milledge, J.S. 509-514  
 Miller, M.A. 253-258  
 Millward, D.J. 13-20  
 Milne, E. 329-336  
 Montali, U. 375-381  
 Montanari, A. 479-484  
 Moreau, J. 49-54  
 Moriarty, K.J. 161-166  
 Morice, A.H. 509-514  
 Morley, C.A. 547-553  
 Morris, J.F. 189-194  
 Morton, J.J. 183-188  
 Mujais, S.K. 617-621  
 Mulvany, M.J. 205-211  
 Murakami, M. 567-572  
 Murray, G. 183-188  
 Musiari, L. 479-484
- Nakamoto, H. 567-572  
 Newsholme, E.A. 61-67  
 Ng, L.L. 417-423  
 Noble, A.R. 273-279  
 Norman, R.I. 395-400  
 Norton, A.C. 651-655  
 Novarini, A. 479-484  
 Nunez, D.J. 129-131
- Obika, L.F.O. 21-27  
 O'Brien, B.M.C. 69-76  
 Ogihara, T. 29-34

- Ogihara, T. 29-34  
 Ohishi, A. 567-572  
 Omae, T. 389-394  
 Otsuka, A. 29-34
- Palkovits, M. 529-534  
 Panos, M.Z. 657-661  
 Pardy, K. 273-279  
 Parry-Billings, M. 61-67  
 Payton, C.D. 521-527  
 Pecker, M.S. 177-182  
 Pederson, W.C. 69-76  
 Pedrinelli, R. 541-545  
 Peiffer, C. 237-244  
 Perez-Barriocanal, F. 473-478  
 Peters, W.P. 501-507  
 Pirie, S.C. 77-84  
 Pollard, H. 49-54  
 Poston, L. 189-194  
 Potter, J.F. 265-272  
 Potts, D.J. 77-84
- Quintanilla, A.P. 617-621
- Raajmakers, J.A.M. 297-304  
 Racadot, R. 213-216  
 Raimbach, S.J. 623-628  
 Raine, A.E.G. 657-661  
 Ravenetti, C. 479-484  
 Rawles, J.W. 223-228  
 Redondo-Torres, J.G. 473-478  
 Reid, W. 589-597  
 Rhodes, G.R. 637-641  
 Rodella, A. 479-484  
 Rolland, Y. 453-461  
 Roulston, J.E. 589-597  
 Rouse, I.L. 99-103
- Sagnella, G.A. 253-258, 573-579  
 Salih, M.S. 11-12  
 Salvetti, A. 541-545  
 Samani, N.J. 629-636  
 Saruta, T. 567-572  
 Saunders, S. 323-327  
 Scarti, L. 217-222  
 Schersten, T. 485-493  
 Schmitze du Moulin, F.E.M.  
 297-304
- Schryber, S.M. 501-507  
 Schwartz, J.C. 49-54  
 Sealey, J.E. 177-182  
 Semple, P.F. 183-188  
 Shainkin-Kestenbaum 463-466  
 Sharma, K. 501-507  
 Sheridan, D.J. 229-236  
 Shimamoto, K. 389-394  
 Singer, D.R.J. 253-258, 573-579  
 Slavin, B. 401-406  
 Smith, M.W. 139-144  
 Smith, R. 323-327  
 Spur, B.W. 195-203  
 Stockley, R.A. 35-41  
 Stone, J. 495-500  
 Stoner, H.B. 425-429  
 Strandgaard, W. 311-318  
 Strazzullo, P. 337-342  
 Strophair, J.A. 561-566  
 Sturm, M.J. 561-566  
 Sudhir, K. 605-610  
 Sugden, A.L. 253-258  
 Sugimoto, Tokuichiro 643-650  
 Sugimoto, Toshihiko 643-650  
 Sullivan, C.E. 407-411  
 Summers, J. 99-103  
 Suzuki, H. 567-572  
 Svanvik, J. 49-54  
 Swales, J.D. 167-170, 629-636
- Taddei, S. 541-545  
 Tanner, M.S. 259-263  
 Tapson, J.S. 445-451  
 Tattersfield, A.E. 467-471  
 Taylor, D.R. 145-147  
 Taylor, R. 383-388, 561-566  
 ten Harkel, A.D.J. 305-310  
 Terpstra, G.K. 297-304  
 Thomas, P. 229-236  
 Thomas, T.H. 157-160  
 Thompson, R.P.H. 401-406,  
 555-559  
 Thune, A. 49-54  
 Thunell, S. 611-616  
 Tipton, M.J. 581-588  
 Torikai, S. 287-295  
 Tracey, K.J. 113-120  
 Trevisan, M. 337-342  
 Tsunetoshi, T. 29-34  
 Turnberg, L.A. 161-166  
 Turner, I.B. 365-368
- van der Hem, G.K. 55-60  
 van Lieshout, E.J. 305-310  
 Van Lieshout, J.J. 305-310  
 Van Overveld, F.J. 297-304  
 Van Reeth, O. 351-355  
 Vandongen, R. 99-103  
 Vantygghem, M.C. 213-216  
 Villanueva, G.R. 473-478  
 Vinnars, E. 329-336, 611-616  
 von der Decken, A. 611-616
- Wagener, O.E. 617-621  
 Wahba, M.M.A.E. 547-553  
 Wang, J.-Y. 535-539  
 Wang, Y.-C. 535-539  
 Ward, M.K. 383-388  
 Warren, J.B. 671-676  
 Warren, P.M. 431-437  
 Wernerman, J. 329-336, 611-616  
 West, J.N.W. 11-12  
 Weston, P.M.T. 133-138  
 Wieling, W. 305-310  
 Wilcox, I. 407-411  
 Wilkins, M.R. 281-285  
 Wilkinson, A.H. 43-48  
 Wilkinson, R. 157-160, 383-388,  
 445-451  
 Williams, B.C. 273-279  
 Williams, D.G. 43-48  
 Williams, N.S. 133-138  
 Williams, R. 657-661  
 Williams, T.D.M. 589-597  
 Williamson, D.H. 357-364  
 Winocour, P.H. 369-374  
 Wolfe, C.D. 189-194  
 Wood, S.M. 85-92  
 Woodford, M. 161-166  
 Woods, R.L. 605-610  
 Woodward, P. 637-641  
 Wright, K.F. 145-147
- Yeaman, S.F. 365-368  
 Yoshida, K. 389-394  
 Young, G.A. 343-349  
 Yudkin, J.S. 121-127
- Zammit, V.C. 599-604  
 Zeiderman, M.R. 343-349

# Volume 77

## SUBJECT INDEX

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

- Acetorphan
  - cholecystitis, enkephalinase 49-54
- Acute mountain sickness
  - atrial natriuretic peptide 509-514
- Acute renal failure
  - ischaemia, biological preservation 77-84
  - methylguanidine 637-641
- Adaptation
  - renal architecture, transport activity 287-295
- Adenosine 3':5'-cyclic monophosphate
  - renin secretion, calcium 273-279
- Adipose tissue metabolism
  - insulin 663-670
- Adrenaline
  - plasma volume, albumin 149-155
  - protein synthesis, muscle 611-616
- Adrenocorticotrophic hormone
  - endothelin 567-572
- Ageing
  - postprandial blood pressure, autonomic function 265-272
  - pressoreceptors 223-228
- Albumin
  - insulin, catecholamines 149-155
- Albumin excretion
  - circadian rhythm, glomerular filtration rate 105-111
- Alcoholism
  - vitamin D deficiency, muscle contraction 171-176
- Aldosterone
  - atrial natriuretic peptide, essential hypertension 252-258
  - endothelin 567-572
- Almitrine
  - hypoxic ventilatory drive, chemoreceptors 431-437
- Altitude
  - atrial natriuretic peptide, acute mountain sickness 509-514
- Aluminium
  - superoxide dismutase, oxygen free radicals 463-466
- Amiloride
  - excretion of potassium and kallikrein 21-27
  - leucocytes, sodium 417-423
- Amino acid flux
  - total parenteral nutrition, exercise 113-120
- Anaesthetics
  - protein synthesis 651-655
- Angiotensin II
  - cerebrospinal fluid, sodium depletion 389-394
- Antidigoxin antibody
  - Na<sup>+</sup>,K<sup>+</sup>-adenosine triphosphatase 617-621
- Antidiuretic hormone
  - hyponatraemia, urea 351-355
- Antimitochondrial antibodies
  - primary biliary cirrhosis 365-368
- Arginine vasopressin
  - endothelin 567-572
- Arm
  - amino acid flux, exercise 113-120
- Arterial pressure
  - endothelin 567-572
- Arteriolar vasodilator
  - congestive heart failure, haemodynamic responses 229-236
- Arteriovenous difference
  - short-chain acylcarnitine, muscle 413-416
- Aspirin
  - platelet aggregation, thromboxane A<sub>2</sub> 99-103
- Asthma
  - dyspnoea, peak expiratory flow rate 237-244
  - selenium, glutathione peroxidase 495-500
- Atherosclerosis
  - counter-regulatory hormones 453-461\*
- Atrial natriuretic peptide
  - altitude, acute mountain sickness 509-514
  - baroreceptor reflex, volume expansion 29-34
  - blood sampling site, exercise 319-322
  - brain, deoxycorticosterone acetate-salt hypertension 529-534
  - cardiac secretion, sodium restriction 605-610
  - diabetes mellitus, glycaemic control 177-182
  - dopaminergic blockade, central hypervolaemia 479-484
  - endothelin 567-572
  - essential hypertension, aldosterone 253-258
  - natriuresis, dopamine 281-285
  - obstructive sleep apnoea, nasal continuous positive airways pressure 407-411
  - proteinuria, primary glomerular disease 643-650
  - renal blood flow, renal sodium handling 55-60
  - renal clearance, sodium restriction 605-610
- Atrial natriuretic peptide precursor
  - plasma 573-579

- Autoimmunity  
   primary biliary cirrhosis, pyruvate dehydrogenase complex 365–368
- Autonomic failure  
   hypotension, glucose 85–92  
   postprandial hypotension, somatostatin 623–628
- Autonomic function  
   postprandial blood pressure, ageing 265–272
- Autonomic nervous control  
   cardiovascular responses, coughing 305–310
- Autonomic neuropathy  
   diabetes, vasopressin 589–597
- Baroreceptor reflex  
   atrial natriuretic peptide, volume expansion 29–34
- Baroreceptors  
   syncope 547–553
- Benzopyrones  
   lymphoedema 69–76
- Bile  
   protoporphyrin IX 473–478
- Biliary lipid secretion  
   protoporphyrin IX 473–478
- Biological preservation  
   acute renal failure, ischaemia 77–84
- Blood flow  
   skeletal muscle, walking performance 485–493
- Blood pressure  
   ageing, autonomic function 265–272  
   atrial natriuretic peptide, aldosterone 253–258  
   autonomic failure, glucose 85–92  
   coughing 305–310  
   sodium/lithium countertransport, lithium clearance 337–342
- Blood sampling site  
   atrial natriuretic peptide, exercise 319–322
- Blood supply  
   adaptation, transport activity 287–295
- BN 52021  
   hypoxia, pulmonary artery pressure 439–443
- Body temperature regulation  
   food deprivation, vasoconstriction 245–252
- Brain  
   atrial natriuretic peptide, deoxycorticosterone acetate–salt hypertension 529–534
- Bretylium tosylate  
   ouabain, sympathetic vasoconstriction 541–545
- 2-Bromoethylamine hydrobromide  
   mesenteric resistance vessels, noradrenaline sensitivity 167–170
- Bronchial reactivity  
   histamine, vasopressin 467–471
- Burns  
   thermoregulation 425–429
- Cachectin  
   metabolic effects, tissue wasting 357–364\*
- Caeruloplasmin  
   messenger RNA, liver 259–263
- Calcium  
   renin secretion, adenosine 3':5'-cyclic monophosphate 273–279
- Calcium antagonist  
   congestive heart failure, haemodynamic responses 229–236
- Calcium channel blockers  
   renin secretion, kidney cortex 273–279
- Ca<sup>2+</sup>–Mg<sup>2+</sup>-adenosine 5'-triphosphatase  
   erythrocyte membrane, hypertension 395–400
- Cancer  
   cytokines 357–364\*
- Cancer cachexia  
   diet-induced thermogenesis, energy expenditure 133–138
- Capillary permeability  
   pregnancy-induced hypertension 599–604
- Carbidopa  
   atrial natriuretic peptide, natriuresis 281–285
- Cardiac output  
   syncope 547–553
- Cardiac transplant  
   atrial natriuretic peptide precursor, plasma 573–579
- Cardiogenic shock  
   lyso-platelet-activating factor 561–566
- Cardiovascular autonomic function  
   Valsava manoeuvre, standing up 305–310
- Cardiovascular receptors  
   coronary circulation 1–5\*
- Carnitine  
   arteriovenous difference, muscle 413–416
- Carotid body  
   hypoxic ventilatory drive, almitrine 431–437
- Catecholamines  
   endothelin 567–572  
   postprandial blood pressure, ageing 265–272
- Cation permeability  
   erythrocytes, pseudohyperkalaemia 213–216
- Central hypervolaemia  
   dopaminergic blockade, atrial natriuretic peptide 479–484
- Central pontine myelinolysis  
   hyponatraemia, urea 351–355
- Cerebrospinal fluid  
   angiotensin II, sodium depletion 389–394
- Chemical renal medullectomy  
   noradrenaline sensitivity, mesenteric resistance vessels 167–170
- Chemoreceptors  
   hypoxic ventilatory drive, almitrine 431–437
- Chemotaxis  
   neutrophils, lipoxins A<sub>4</sub> and B<sub>4</sub> 195–203
- Chemotherapy  
   hypertension, Na<sup>+</sup>, K<sup>+</sup>-adenosine triphosphatase inhibitor 501–507
- p*-Chlorophenylalanine  
   renal failure, 5-hydroxytryptamine 145–147



- Cholecystitis  
  enkephalinase, acetorphan 49–54
- Cholera toxin  
  intestinal secretion, tetrodotoxin 161–166
- Cholesterol  
  protoporphyrin IX 473–478
- Chronic nephropathy  
  lithium clearance, glomerular filtration rate 311–318
- Chronic renal failure  
  insulin action, continuous ambulatory peritoneal dialysis 383–385  
  methylguanidine 637–641
- Circadian rhythm  
  dyspnoea, asthma 237–244  
  effective renal plasma flow 105–111  
  glomerular filtration rate 105–111
- Cirrhosis  
  haemorrhage, somatostatin analogue 7–9  
  isolated perfused kidney, sodium excretion 657–661
- Citrate synthetase  
  intermittent claudication, walking performance 485–493
- Cold shock  
  cardiovascular and respiratory responses 581–588\*
- Cold-water immersion  
  cardiovascular and respiratory responses 581–588\*
- Collagen  
  platelet aggregation, aspirin 99–103
- Congestive heart failure  
  haemodynamic responses, arteriolar vasodilator 229–236
- Continuous ambulatory peritoneal dialysis  
  insulin action, glucose metabolism 383–385
- Contractility  
  mesenteric veins, oesophageal varices 205–211
- Coronary circulation  
  cardiovascular receptors 1–5\*
- Cortisol  
  endothelin 567–572  
  hypercapnia 323–327  
  protein synthesis, muscle 611–616
- Coughing  
  cardiovascular responses, autonomic nervous control 305–310
- Coumarin  
  lymphoedema 69–76
- Counter-regulatory hormones  
  atherosclerosis 453–461\*
- C-peptide  
  lipoproteins, diabetes mellitus 369–374
- Cranial window  
  pial vessel diameter, glycerol infusion 535–539
- Crypt cell production rate  
  small intestine, essential fatty acids 555–559
- Cytochrome-*c* oxidase  
  intermittent claudication, walking performance 485–493
- Cytokines  
  metabolic effects, tissue wasting 357–364\*
- Deoxycorticosterone acetate–salt hypertension  
  atrial natriuretic peptide, brain 529–534
- Dexamethasone  
  neutrophils, proteolysis 35–41
- Diabetes  
  atherosclerosis 453–461\*  
  atrial natriuretic peptide, renin 177–182  
  lipoproteins, C-peptide 369–374  
  vasopressin, autonomic neuropathy 589–597
- Diabetic nephropathy  
  mesangial expansion, streptozotocin 521–527
- Dietary protein  
  nephrotic syndrome 445–451
- Diet-induced thermogenesis  
  cancer cachexia 133–138
- Diltiazem  
  renin secretion, calcium 273–279
- Dopamine  
  atrial natriuretic peptide, natriuresis 281–285
- Dopaminergic blockade  
  central hypervolaemia, atrial natriuretic peptide 479–484
- Doppler flowmetry  
  forearm blood flow, plethysmography 11–12
- Dyspnoea  
  asthma, peak expiratory flow rate 237–244
- Effective renal plasma flow  
  circadian rhythm 105–111
- Elastase  
  neutrophils, proteolysis 35–41
- Emphysema  
  neutrophils, proteolysis 35–41
- Endogenous digoxin-like immunoreactivity  
  erythrocyte, <sup>86</sup>Rb uptake 375–381  
  sodium transport, pregnancy-induced hypertension 185–190
- $\beta$ -Endorphin  
  ventilatory control 323–327
- Endothelin  
  haemodynamics, neurohormones 567–572  
  kidney, quantitative receptor autoradiography 129–131  
  pulmonary circulation, hypoxia 671–676
- Endothelium-derived relaxing factor  
  pulmonary circulation, hypoxia 671–676
- Endotoxin  
  neutrophils, proteolysis 35–41
- Energy expenditure  
  cancer cachexia 133–138  
  sickle cell disease 93–97
- Enkephalin  
  cholecystitis, acetorphan 49–54
- Enkephalinase  
  cholecystitis, acetorphan 49–54
- Enteral feeding  
  intestinal absorption 401–406
- Enteroglucagon  
  small intestine, essential fatty acids 555–559

- Enzyme activation  
liver, parenteral nutrition 343–349
- Erythrocyte membrane  
Ca<sup>2+</sup>-Mg<sup>2+</sup>-adenosine 5'-triphosphatase,  
hypertension 395–400
- Erythrocytes  
cation permeability, pseudohyperkalaemia 213–216  
<sup>86</sup>Rb uptake 375–381
- Essential fatty acids  
small-intestinal mucosa, gut peptides 555–559
- Essential hypertension  
atrial natriuretic peptide, aldosterone 253–258  
atrial natriuretic peptide precursor, plasma 573–579  
cerebrospinal fluid, angiotensin II 389–394  
intracellular free calcium, vasopressin 183–188
- Exercise  
amino acid flux, total parenteral nutrition 113–120  
atrial natriuretic peptide, blood sampling  
site 319–322
- Extracellular fluid volume  
pregnancy-induced hypertension 599–604
- Fatty acid metabolism  
muscle 413–416
- Fenbufen  
protein synthesis, liver 13–20
- Fever  
burn injury 425–429
- Fibrosis  
benzopyrones 69–76
- Filtered load  
electrolytes, circadian rhythm 105–111
- Fluid balance  
hypoxia 509–514
- Fluid retention  
chemotherapy, Na<sup>+</sup>, K<sup>+</sup>-adenosine triphosphatase  
inhibitor 501–507
- Food deprivation  
body temperature regulation,  
vasoconstriction 245–252
- Forearm  
arteriovenous difference, short-chain  
acylcarnitine 413–416
- N*-Formyl-L-methionyl-L-leucyl-L-phenylalanine  
neutrophils, chemotaxis 195–203
- Forearm blood flow  
myogenic response, Doppler flowmetry 11–12
- Free fatty acids  
adipose tissue, insulin 663–670
- $\beta$ -Galactosidase  
intestinal mucosa, nematode infection 139–144
- Gall bladder  
cholecystitis, enkephalinase 49–54
- Glomerular basement membrane  
proteinuria, nephrotic syndrome 43–48
- Glomerular filtration rate  
circadian rhythm, electrolyte excretion 105–111  
lithium clearance, chronic nephropathy 311–318  
primary glomerular disease, atrial natriuretic  
peptide 643–650
- Glucagon  
protein synthesis, muscle 611–616
- Glucose  
adipose tissue, insulin 663–670  
hypotension, autonomic failure 85–92  
postprandial hypotension, somatostatin 623–628
- Glucose clearance  
chronic nephropathy, glomerular filtration  
rate 311–318
- Glucose metabolism  
chronic renal failure, continuous ambulatory peritoneal  
dialysis 383–385  
endotoxin, insulin resistance 61–67
- Glutamine  
skeletal muscle, fenbufen 13–20
- Glutathione peroxidase  
selenium, asthma 495–500
- Glycaemic control  
diabetes mellitus, atrial natriuretic peptide 177–182
- Glycerol  
adipose tissue, insulin 663–670  
pial vessel diameter, haemodynamics 535–539  
renal failure, 5-hydroxytryptamine 145–147
- Glycine  
protein turnover, sickle cell disease 93–97
- Glycogen  
liver, parenteral nutrition 343–349
- Guanosine 3':5'-cyclic monophosphate  
atrial natriuretic peptide, natriuresis 281–285
- Haemodynamics  
glycerol infusion 535–539
- Haemoglobinopathy  
protein turnover, metabolic rate 93–97
- Haemorrhage  
portal hypertension, somatostatin analogue 7–9
- Heart  
atrial natriuretic peptide secretion, sodium  
clearance 605–610  
protein synthesis, anaesthetics 651–655
- Heart rate  
coughing 305–310
- High-density lipoprotein cholesterol  
diabetes mellitus, C-peptide 369–374
- Hippuran extraction  
atrial natriuretic peptide 55–60
- Histamine  
bronchial reactivity, vasopressin 467–471
- 3-Hydroxyacyl-CoA dehydrogenase  
intermittent claudication, walking  
performance 485–493
- 7-Hydroxycoumarin  
lymphoedema 69–76
- 5-Hydroxytryptamine  
renal failure, *p*-chlorophenylamine 145–147

- Hypercapnia**  
 opioids, occlusion pressure 323–327
- Hypertension**  
 atherosclerosis 453–461\*  
 atrial natriuretic peptide, brain 529–534  
 atrial natriuretic peptide precursor, plasma 573–579  
 Ca<sup>2+</sup>-Mg<sup>2+</sup>-adenosine 5'-triphosphatase, erythrocyte membrane 395–400  
 chemotherapy, Na<sup>+</sup>,K<sup>+</sup>-adenosine triphosphatase inhibitor 501–507  
 ouabain, sympathetic vasoconstriction 541–545  
 pressoreceptors 223–228  
 renin messenger RNA, renal/extra-renal tissues 629–636  
 sodium/lithium countertransport, lithium clearance 337–342
- Hypertrophy**  
 mesenteric veins, oesophageal varices 205–211
- Hyponatraemia**  
 urea, central pontine myelinolysis 351–355
- Hypotension**  
 autonomic failure, glucose 85–92
- Hypoxia**  
 atrial natriuretic peptide, nasal continuous positive airways pressure 407–411  
 fluid balance, sodium excretion 509–514  
 ligustrazine, pulmonary vasodilatation 515–520  
 pulmonary artery pressure, platelet-activating factor 439–443  
 pulmonary circulation, endothelium-derived relaxing factor 671–676
- Hypoxic ventilatory drive**  
 almitrine, chemoreceptors 431–437
- Ileum**  
 cholera toxin, tetrodotoxin 161–166
- Injury**  
 thermoregulation 425–429
- Insulin**  
 adipose tissue metabolism 663–670  
 fenbufen, endotoxaemia 13–20  
 hypotension, glucose 85–92  
 plasma volume, albumin 149–155  
 postprandial blood pressure, ageing 265–272
- Insulin action**  
 chronic renal failure, continuous ambulatory peritoneal dialysis 383–385
- Insulin injection site**  
 blood flow, thermal clearance 121–127
- Insulin resistance**  
 glucose metabolism, endotoxin 61–67
- Interleukin-1**  
 metabolic effects, tissue wasting 357–364\*
- Intermittent claudication**  
 metabolic adaptation, walking performance 485–493
- Intestinal absorption**  
 enteral feeding, starvation 401–406
- Intestinal mucosa**  
 β-galactosidase, nematode infection 139–144
- Intestinal secretion**  
 cholera toxin, tetrodotoxin 161–166
- Intracellular free calcium**  
 essential hypertension, vasopressin 183–188
- Ischaemia**  
 acute renal failure, biological preservation 77–84
- Kallikrein excretion**  
 amiloride, potassium 21–27
- Kidney**  
 atrial natriuretic peptide clearance, sodium restriction 605–610  
 endothelin-1, quantitative receptor autoradiography 129–131
- Kidney cortex**  
 renin secretion, calcium 273–279
- Lactase**  
 intestinal mucosa, nematode infection 139–144
- Lactate**  
 adipose tissue, insulin 663–670
- Lactate dehydrogenase**  
 intermittent claudication, walking performance 485–493
- Leg**  
 amino acid flux, exercise 113–120
- Leucine**  
 protein synthesis, muscle 329–336
- Leucocytes**  
 sodium, amiloride 417–423  
 sodium, potassium 157–160  
 sodium transport, endogenous digoxin-like immunoreactivity 189–194
- Leukotriene B<sub>4</sub>**  
 neutrophils, chemotaxis 195–203
- Ligustrazine**  
 pulmonary vasodilatation, chronic hypoxia 515–520
- Lipoprotein metabolism**  
 atherosclerosis 453–461\*
- Lipoproteins**  
 diabetes mellitus, C-peptide 369–374
- Lipoxin A<sub>4</sub>**  
 neutrophils, chemotaxis 195–203
- Lipoxin B<sub>4</sub>**  
 neutrophils, chemotaxis 195–203
- Lithium clearance**  
 chronic nephropathy, glomerular filtration rate 311–318  
 sodium/lithium countertransport, blood pressure 337–342
- Liver**  
 caeruloplasmin, messenger RNA 259–263  
 enzyme activation, parenteral nutrition 343–349  
 protein synthesis, anaesthetics 651–655  
 protein synthesis, fenbufen 13–20
- Lung**  
 mast cell subtypes 297–304  
 protein synthesis, anaesthetics 651–655

- Lymphoedema  
benzopyrones 69–76
- Lyso-platelet-activating factor  
shock, severe tissue damage 561–566
- Mass spectrometry  
protein synthesis, leucine 329–336
- Mast cell subtypes  
lung tissue 297–304
- Mesangial expansion  
diabetic nephropathy, streptozotocin 521–527
- Mesenteric resistance vessels  
noradrenaline sensitivity, chemical renal  
medullectomy 167–170
- Mesenteric veins  
contractility, oesophageal varices 205–211
- Messenger RNA  
caeruloplasmin, liver 259–263  
renin, hypertension 629–636
- Metabolic rate  
sickle cell disease 93–97
- Methylguanidine  
renal failure 637–641
- $\beta$ -Microglobulin excretion  
circadian rhythm, glomerular filtration rate 105–111
- Muscle  
protein synthesis, anaesthetics 651–655  
protein synthesis, leucine 329–336  
protein synthesis, stress hormones 611–616  
short-chain acylcarnitine, arteriovenous  
difference 413–416
- Muscle contraction  
alcoholism, vitamin D deficiency 171–176
- Myogenic response  
forearm blood flow, Doppler flowmetry 11–12
- $\text{Na}^+, \text{K}^+$ -adenosine triphosphatase  
ouabain-like factor 617–621
- $\text{Na}^+, \text{K}^+$ -adenosine triphosphatase inhibitor  
chemotherapy, hypertension 501–507
- Nasal continuous positive airways pressure  
atrial natriuretic peptide, obstructive sleep  
apnoea 407–411
- Natriuresis  
dopaminergic blockade, atrial natriuretic  
peptide 479–484
- Natriuretic factor  
chemotherapy, hypertension 501–507
- Nematode infection  
intestinal mucosa,  $\beta$ -galactosidase 139–144
- Neonate  
erythrocyte  $^{86}\text{Rb}$  uptake, endogenous digoxin-like  
immunoreactivity 375–381
- Nephrotic syndrome  
dietary protein 445–451  
proteinuria, glomerular basement membrane 43–48
- Neurotensin  
cholera toxin, intestinal secretion 161–166
- Neutrophils  
chemotaxis, lipoxins  $\text{A}_4$  and  $\text{B}_4$  195–203  
proteolysis, emphysema 35–41
- Nicardipine  
congestive heart failure, haemodynamic  
response 229–236
- Noradrenaline  
plasma volume, albumin 149–155
- Noradrenaline sensitivity  
mesenteric resistance vessels, chemical renal  
medullectomy 167–170
- Northern blotting  
renin messenger RNA, hypertension 629–636
- Obesity  
atherosclerosis 453–461\*
- Obstructive sleep apnoea  
atrial natriuretic peptide, nasal continuous positive  
airways pressure 407–411
- Occlusion pressure  
hypercapnia, opioids 323–327
- Oesophageal varices  
mesenteric veins, contractility 205–211
- Opioids  
ventilatory control 323–327
- Orthostasis  
vasopressin, autonomic neuropathy 589–597
- Osmotic stimulation  
vasopressin, autonomic neuropathy 589–597
- Ouabain  
sympathetic mechanism, hypertension 541–545
- Oubain-like factor  
 $\text{Na}^+, \text{K}^+$ -adenosine triphosphatase 617–621
- Oxygen free radicals  
superoxide dismutase, aluminium 463–466
- Oxygen partial pressure  
transport activity, renal architecture 287–295
- Packed cell volume  
insulin, catecholamines 149–155
- Parenteral nutrition  
liver, enzyme activation 343–349
- Peak expiratory flow rate  
asthma, dyspnoea 237–244
- Peptidyltyrosyltyrosine  
small intestine, essential fatty acids 55–559
- Phentolamine  
ouabain, sympathetic vasoconstriction 541–545
- Phosphofructokinase  
intermittent claudication, walking  
performance 485–493
- Phospholipid  
protoporphyrin IX 473–478
- Physical exercise  
intermittent claudication, metabolic  
adaptation 485–493
- Pial vessel diameter  
cranial window, glycerol infusion 535–539

- Plasma**  
atrial natriuretic peptide precursor 573–579
- Plasma renin activity**  
atrial natriuretic peptide, essential hypertension 253–258  
endothelin 567–572
- Plasma volume**  
insulin, catecholamines 149–155  
pregnancy-induced hypertension 599–604
- Platelet aggregation**  
platelet-activating factor, thromboxane A<sub>2</sub> 99–103
- Platelet-activating factor**  
hypoxia, pulmonary artery pressure 439–443  
platelet aggregation, thromboxane A<sub>2</sub> 99–103  
shock, severe tissue damage 561–566
- Platelets**  
intracellular free calcium, vasopressin 183–188
- Plethysmography**  
forearm blood flow, Doppler flowmetry 11–12
- Portal hypertension**  
haemorrhage, somatostatin analogue 7–9  
vascular structure, oesophageal varices 205–211
- Postprandial blood pressure**  
ageing, autonomic function 265–272
- Postprandial hypotension**  
autonomic failure, somatostatin 623–628
- Potassium**  
amiloride, kallikrein excretion 21–27  
leucocytes 153–156
- Potassium canrenoate**  
renal prostaglandins 217–222
- Potassium clearance**  
chronic nephropathy, glomerular filtration rate 311–318
- Pregnancy-induced hypertension**  
capillary permeability, extracellular fluid volume 599–604  
sodium transport, endogenous digoxin-like immunoreactivity 189–194
- Pressoreceptors**  
hypertension 223–228
- Primary biliary cirrhosis**  
autoimmunity, pyruvate dehydrogenase complex 365–368
- Primary glomerular disease**  
proteinuria, atrial natriuretic peptide 643–650
- Prostaglandins**  
fenbufen, endotoxaemia 13–20  
potassium canrenoate 217–222
- Protein**  
nephrotic syndrome 445–451
- Protein kinetics**  
total parenteral nutrition, exercise 113–120
- Protein synthesis**  
anaesthetics 651–655  
liver and muscle, fenbufen 13–20  
muscle, leucine 329–336  
muscle, stress hormones 611–616
- Protein turnover**  
sickle cell disease 93–97
- Proteinuria**  
glomerular basement membrane, nephrotic syndrome 43–48  
primary glomerular disease, atrial natriuretic peptide 643–650
- Proteolysis**  
neutrophils, emphysema 35–41
- Protoporphyrin IX**  
biliary lipid secretion 473–478
- Pseudohyperkalaemia**  
erythrocytes, cation permeability 213–216
- Pulmonary artery pressure**  
hypoxia, platelet-activating factor 439–443
- Pulmonary circulation**  
hypoxia, endothelium-derived relaxing factor 671–676
- Pulmonary hypertension**  
ligustrazine, chronic hypoxia 515–520
- Pulmonary vasodilatation**  
ligustrazine, chronic hypoxia 515–520
- Pyruvate dehydrogenase complex**  
primary biliary cirrhosis, autoimmunity 365–368
- Quantitative receptor autoradiography**  
endothelin-1, kidney 129–131
- <sup>86</sup>Rb uptake  
erythrocyte, endogenous digoxin-like immunoreactivity 375–381
- Regulatory peptides**  
hypotension, glucose 85–92  
postprandial hypotension, somatostatin 623–628
- Renal architecture**  
tissue oxygen partial pressure, transport activity 287–295
- Renal blood flow**  
atrial natriuretic peptide, renal sodium handling 55–60  
endothelin 567–572
- Renal failure**  
atrial natriuretic peptide precursor, plasma 573–579  
*p*-chlorophenylalanine, 5-hydroxytryptamine 145–147
- Renal function**  
atrial natriuretic peptide 55–60  
primary glomerular disease, atrial natriuretic peptide 643–650
- Renal prostaglandins**  
potassium canrenoate 217–222
- Renal sodium handling**  
atrial natriuretic peptide, renal blood flow 55–60
- Renal tubular function**  
chronic nephropathy 311–318
- Renal vein**  
renin, sodium restriction 605–610
- Renin**  
diabetes mellitus, glycaemic control 177–182  
renal vein, sodium restriction 605–610

- Renin messenger RNA**  
 renal/extra-renal tissues, hypertension 629-636
- Renin secretion**  
 calcium, adenosine 3':5'-cyclic  
 monophosphate 273-279
- Rest**  
 atrial natriuretic peptide, blood sampling  
 site 319-322
- Ribonuclease protection**  
 renin messenger RNA, hypertension 629-636
- Ribosomes**  
 muscle, stress hormones 611-616
- Selenium**  
 glutathione peroxidase, asthma 495-500
- Sensory scaling**  
 dyspnoea, asthma 237-244
- Sepsis**  
 cytokines 357-364\*  
 glucose metabolism, skeletal muscle 61-67
- Septicaemia**  
 lyso-platelet-activating factor 561-566
- Severe tissue damage**  
 lyso-platelet-activating factor 561-566
- Shock**  
 lyso-platelet-activating factor 561-566
- Short-chain acylcarnitine**  
 arteriovenous difference, muscle 413-416
- Sickle cell disease**  
 protein turnover, metabolic rate 93-97
- Skeletal muscle**  
 alcoholism, vitamin D deficiency 171-176  
 blood flow, walking performance 485-493  
 glucose metabolism, sepsis 61-67  
 glutamine, protein synthesis, fenbufen 13-20
- Small-intestinal mucosa**  
 gut peptides, essential fatty acids 555-559
- Small intestine**  
 absorption, starvation 401-406
- Sodium**  
 leucocytes 157-160  
 leucocytes, amiloride 417-423
- Sodium clearance**  
 chronic nephropathy, glomerular filtration  
 rate 311-318
- Sodium depletion**  
 cerebrospinal fluid, angiotensin II 389-394
- Sodium excretion**  
 hypoxia 509-514  
 isolated perfused kidney, cirrhosis 657-661
- Sodium/lithium countertransport**  
 lithium clearance, blood pressure 337-342
- Sodium restriction**  
 atrial natriuretic peptide secretion and  
 clearance 605-610
- Sodium transport**  
 endogenous digoxin-like reactivity, pregnancy-induced  
 hypertension 189-194
- Sodium transport inhibitor**  
 endogenous digoxin-like immunoreactivity, pregnancy-  
 induced hypertension 189-194
- Somatostatin**  
 postprandial hypotension, autonomic  
 failure 623-628
- Somatostatin analogue**  
 haemorrhage, portal hypertension 7-9
- Standing up**  
 cardiovascular autonomic function 305-310
- Starvation**  
 body temperature regulation,  
 vasoconstriction 245-252  
 intestinal absorption 401-406
- Streptozotocin**  
 diabetic nephropathy, mesangial expansion 521-527
- Stress**  
 atherosclerosis 453-461\*
- Stress hormones**  
 protein synthesis, muscle 611-616
- Subcutaneous blood flow**  
 thermal clearance 121-127
- Superoxide dismutase**  
 aluminium, oxygen free radicals 463-466
- Sympathetic nervous system**  
 atrial natriuretic peptide, volume expansion 29-34  
 hypotension, glucose 85-92  
 postprandial hypotension, somatostatin 623-628
- Sympathetic vasoconstriction**  
 ouabain, hypertension 541-545
- Syncope**  
 cardiac output, baroreceptors 547-553
- Syndrome of inappropriate antidiuretic hormone  
 secretion**  
 hyponatraemia, urea 351-355
- Taurocholate**  
 protoporphyrin IX 473-478
- Tetrodotoxin**  
 intestinal secretion, cholera toxin 161-166
- Thermal clearance**  
 subcutaneous blood flow 121-127
- Thermoregulation**  
 burn injury 425-429
- Thromboxane A<sub>2</sub>**  
 platelet aggregation, platelet-activating  
 factor 99-103
- Tissue wasting**  
 cytokines 357-364\*
- Total parenteral nutrition**  
 amino acid flux, exercise 113-120
- Transport activity**  
 renal architecture, blood supply 287-295
- Trauma**  
 cytokines 357-364\*
- Triacylglycerol**  
 adipose tissue, insulin 663-670

- high-density lipoprotein cholesterol, diabetes mellitus 369-374
- small-intestinal mucosa, gut peptides 555-559
- Tri-iodothyronine
  - glucose metabolism, endotoxin 61-67
- Tumour necrosis factor
  - metabolic effects, tissue wasting 357-364\*
  - neutrophils, proteolysis 35-41
- Urea
  - hyponatraemia, central pontine myelinolysis 351-355
- Urinary albumin excretion
  - diabetes mellitus, glycaemic control 177-182
- Valsava manoeuvre
  - cardiovascular autonomic function 305-310
- Vascular permeability
  - primary glomerular disease, atrial natriuretic peptide 643-650
- Vasoconstriction
  - body temperature regulation, food deprivation 245-252
- Vasopressin
  - bronchial reactivity, histamine 467-471
- diabetes, autonomic neuropathy 589-597
- intracellular free calcium, essential hypertension 183-188
- Ventilatory control
  - opioids 323-327
- Vitamin D
  - alcoholism, muscle contraction 171-176
- Vitamin D deficiency
  - alcoholism, muscle contraction 171-176
- Volume expansion
  - atrial natriuretic peptide, baroreceptor reflex 29-34
- von Willebrand factor
  - kidney, endothelin-1 129-131
- Walking performance
  - intermittent claudication, metabolic adaptation 485-493
- Water immersion
  - dopaminergic blockade, atrial natriuretic peptide 479-484
- WEB 2086
  - hypoxia, pulmonary artery pressure 439-443
- <sup>133</sup>Xe washout
  - subcutaneous blood flow 121-127