OFFICERS AND COMMITTEE, 1978–79

Chairman of the Committee
R. R. Porter, F.R.S.

Committee
G. B. Ansell
J. R. Bronk

Treasurer
D. F. Elliott
E. G. Brown
N. G. Carr
P. H. Clarke, F.R.S.

General Secretary
J. B. Lloyd
J. T. Dingle*
P. F. Fottrell

Publications Secretary
R. M. C. Dawson
C. Green
M. I. Gurr
F. W. Hemming

Meetings Secretary
H. F. Bradford
H. K. King
J. C. Metcalfe

I. H. M. Muir, F.R.S.
J. W. Porteous, F.R.S.E.
B. E. Ryman

*Ex officio Member of Committee; Representative of Editorial Board of the Biochemical Journal.

Executive Secretary
A. I. P. Henton (7 Warwick Court, London WC1R 5DP)

The Biochemical Society exists to advance the science of biochemistry through meetings and publications. Several meetings a year are held, each at a different place; original papers are presented and special topics are discussed at symposia and colloquia.

Persons interested in biochemistry are eligible for election as Members. Details of further facilities accorded to Members, and forms of application for membership, are available from the Executive Secretary, The Biochemical Society, 7 Warwick Court, London WC1R 5DP [01-242 1076 (4 lines)].
NOTICE FOR CONTRIBUTORS

The *Biochemical Journal* places emphasis on the prompt publication of both full-length papers (on average about 6 months after receipt) and rapid papers (on average 10–12 weeks after receipt).

For detailed instructions on the preparation of papers contributors (who need not be members of the Biochemical Society) should refer to *Policy of the Journal and Instructions to Authors* [*Biochem. J.* (1978) 169, 1–27] (obtainable free on request, in booklet form, from the Executive Secretary, The Biochemical Society, 7 Warwick Court, London WC1R 5DP).

Papers submitted for publication should be addressed to the Editorial Office Manager, Biochemical Journal, 7 Warwick Court, London WC1R 5DP.

Contributors should note that the *Biochemical Journal* makes no manuscript handling charges, no page charges and no charges for plates. Reprints are available at modest cost at about the same time as publication, and, if an author is a member of the Biochemical Society, 50 reprints are provided free of charge.

(iii)
NOTICE FOR SUBSCRIBERS

The Biochemical Journal is published and distributed by the Biochemical Society. It is published twice monthly, alternate issues being devoted to Molecular Aspects and to Cellular Aspects of biochemistry. It is planned that in 1978 eight volumes, each volume being made up of three issues, will be published according to the following schedule:

<table>
<thead>
<tr>
<th>Molecular Aspects</th>
<th>Cellular Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>1978</td>
</tr>
<tr>
<td>1 Jan. 169 1</td>
<td>15 Jan. 170 1</td>
</tr>
<tr>
<td>1 Feb. 169 2</td>
<td>15 Feb. 170 2</td>
</tr>
<tr>
<td>1 Mar. 169 3*</td>
<td>15 Mar. 170 3*</td>
</tr>
<tr>
<td>1 Apr. 171 1</td>
<td>15 Apr. 172 1</td>
</tr>
<tr>
<td>1 May 171 2</td>
<td>15 May 172 2</td>
</tr>
<tr>
<td>1 June 171 3*</td>
<td>15 June 172 3*</td>
</tr>
<tr>
<td>1 July 173 1</td>
<td>15 July 174 1</td>
</tr>
<tr>
<td>1 Aug. 173 2</td>
<td>15 Aug. 174 2</td>
</tr>
<tr>
<td>1 Sept. 173 3*</td>
<td>15 Sept. 174 3*</td>
</tr>
<tr>
<td>1 Oct. 175 1</td>
<td>15 Oct. 176 1</td>
</tr>
<tr>
<td>1 Nov. 175 2</td>
<td>15 Nov. 176 2</td>
</tr>
<tr>
<td>1 Dec. 175 3*</td>
<td>15 Dec. 176 3*</td>
</tr>
</tbody>
</table>

*Completes volume, and includes Indexes.

Biochemical Society Transactions. This is a separate publication (see below). Volume 6 will be published in 1978, in six parts.

Subscription Rates to the Biochemical Journal. For non-members of the Biochemical Society the subscription rates for 1978 are shown below.

Subscribers to the Biochemical Journal can subscribe to Biochemical Society Transactions on a joint subscription, saving £15.00 (U.K. and Ireland) or $25.00 (elsewhere). The methods of despatch of both publications are shown below.

<table>
<thead>
<tr>
<th>U.K. &amp; Ireland only</th>
<th>U.S.A., Canada &amp; Mexico</th>
<th>Japan only</th>
<th>Overseas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year (8 volumes)</td>
<td>U.S. $320.00</td>
<td>U.S. $330.00</td>
<td>U.S. $300.00</td>
</tr>
<tr>
<td>Per volume</td>
<td>U.S. $45.00</td>
<td>U.S. $46.00</td>
<td>U.S. $42.00</td>
</tr>
<tr>
<td>Per part</td>
<td>U.S. $16.00</td>
<td>U.S. $16.50</td>
<td>U.S. $15.00</td>
</tr>
</tbody>
</table>

Airfreight to U.S.A., Canada and Mexico. The subscription rates for North America include an element for this service.

Accelerated Surface Post to Japan only. The subscription rates include a 10% surcharge for this service.

Terms are cash with order or against proforma invoice. Orders and subscriptions should be sent to the Biochemical Society Book Depot, P.O. Box 32, Commerce Way, Colchester CO2 8HP, Essex, or through your normal agent.

Claims regarding issues lost or damaged in transit should be addressed to the Biochemical Society at the address given in the preceding paragraph. Claims cannot be entertained if they are received later than three months after the date of posting, plus such time as would be expected for transit by post.

Back Numbers. Enquiries for volumes 1–19 of the Journal should be addressed to William Dawson & Sons Ltd., Back Issues Department, Cannon House, Park Farm Road, Folkestone, Kent. Quotations for available issues of subsequent volumes and parts of the Journal, and also of Transactions, may be obtained on application to The Biochemical Society Book Depot, P.O. Box 32, Commerce Way, Colchester CO2 8HP, Essex.

Microforms. The following versions are available.  
Details and prices are available on request from the Biochemical Society’s Colchester office.

Advertisements. Applications for advertising space should be sent to the Advertising Department, The Biochemical Society, 7 Warwick Court, London WC1R 5DP [01-242 1076 (4 lines)]. Copy is required eight weeks before publication date. Rate cards are available on request.

IMPORTANT NOTICE. All subscribers outside the U.K. and Ireland must remit in U.S. $ or the sterling equivalent at the rate of exchange prevailing at the date of payment.
ACKNOWLEDGEMENT TO REFEREES

The Editorial Board of the Biochemical Journal gratefully acknowledges the assistance given during the 1977–78 academic year by the following referees:

E. P. Abraham  R. B. Beechey  B. Capon
D. H. Adams  J. G. Beeley  N. G. Carr
R. L. P. Adams  E. A. Bell  C. J. Carter
S. Ainsworth  D. S. Bendall  M. A. Cawthorne
M. Akhtar  C. S. Berry  R. A. Chalmers
K. G. M. M. Alberti  B. Birdsall  D. Chapman
W. N. Aldridge  J. O. Bishop  P. A. Charlwood
S. Y. Ali  J. A. Blair  C. J. Chesterton
D. Allan  A. Blow  W. W. Christie
A. Allen  D. M. Blow  G. D. Clarke
A. K. Allen  T. Blundell  J. Clegg
A. C. Allison  R. Bonnett  R. A. Clegg
R. P. Amblers  R. Booth  M. Clemens
J. C. Anderson  D. Boulter  G. A. Codd
P. Andrews  J. C. Boursnell  J. R. Coggins
G. B. Ansell  D. Bowen  P. Cohen
D. J. Anstee  D. H. Boxer  R. Coleman
C. Anthony  C. A. R. Boyd  M. G. Combe
H. R. V. Arnstein  G. S. Boyd  J. Conchie
S. J. H. Ashcroft  M. J. Brammer  G. M. W. Cook
C. C. Ashley  D. Bray  B. A. Cooke
E. D. T. Atkins  I. Bremner  J. Coombs
G. L. Atkins  J. W. Bridges  R. A. Cooper
A. Atkinson  A. S. Brill  H. G. Coore
H. S. Bachelard  K. Brocklehurst  D. B. Coult
J. S. D. Bacon  J. R. Bronk  B. Crabtree
A. A.-B. Badawy  B. L. Brown  R. K. Craig
A. J. Bailey  S. B. Brown  N. Crawford
E. Bailey  K. R. Bruckdorfer  J. M. Creath
G. S. Bailey  D. Brundish  J. E. Cremer
G. D. Baird  R. V. Brun  E. M. Crook
R. Balazs  C. J. Bruton  M. J. Crumpton
A. J. Cryer  J. Bryant  A. Cryer
B. C. Baldwin  J. D. Bu’Lock  E. Cundliffe
C. W. Bamforth  B. Burchell  L. Cuzner
A. D. Bangham  K. Burdett  K. Dalziel
B. E. C. Banks  R. H. Burdon  N. E. Dance
J. Barber  K. Burton  B. N. Dancer
R. G. Bardsley  A. F. Bury  P. D’Arcy-Hart
W. G. Bardsley  J. A. Buswell  D. R. Davies
T. Barkas  P. H. W. Butterworth  D. S. Davies
G. R. Barker  P. J. Butterworth  E. Davies
M. J. Barnes  P. J. Buttery  N. T. Davies
M. McC. Barnes  R. H. Burdon  P. Davies
A. J. Barrett  K. A. Cammack  A. P. Dawson
W. Bartley  R. Cammack  R. M. C. Dawson
J. M. Basford  M. Campbell  P. D. G. Dean
M. Bayliss  P. N. Campbell  R. T. Dean
G. H. Beaver  S. Campo  J. de Bellerocche
G. Beddard  D. J. Candy  F. De Matteis
T. J. C. Beebee

(v)
ACKNOWLEDGEMENT TO REFEREES

A. J. Dickson
I. Dickson
A. T. Diplock
H. B. F. Dixon
A. S. R. Donald
I. A. Donaldson
H. M. Dott
V. C. Duance
J. P. Durham
R. A. Dwek
T. A. Dyer
R. R. Eady
S. B. Easterbrook-Smith
J. S. Easterby
A. A. Eddy
P. A. Edwards
R. A. Eisenthal
G. H. Elder
K. R. F. Elliott
R. Ellis
D. C. Ellwood
D. T. Elmore
S. R. Elsdon
P. C. Engel
P. J. England
M. B. Enser
M. P. Esnouf
D. J. Etherington
M. C. W. Evans
R. B. Fears
J. Feeney
S. Ferguson
E. B. Fern
H. N. Fernley
P. Ferré
C. A. Fewson
E. M. Fielden
J. B. C. Findlay
J. B. Finean
S. Fitton-Jackson
R. Flavell
J. C. Fletcher
R. J. Flower
K. Fotherby
L. A. Fothergill
D. R. Fraser
N. Frearson
R. B. Freedman
D. Fuller
T. Galliard
D. J. Galton
P. B. Garland
P. J. Garlick
G. A. Garton
P. J. Geary
A. J. Geddes
R. A. Gibbons
W. Gibbons
D. Gibbs
G. A. Gilbert
I. Giles
R. S. Gilmour
D. Girmes
J. Glover
I. M. Glynn
P. G. Glynn
J. P. Goddard
R. Goldbach
D. F. Goldspink
B. D. Gomperts
P. W. Goodenough
G. H. Goodwin
A. H. Gordon
B. Gould
G. Gould
A. B. Graham
M. E. Grant
C. D. Green
I. C. Green
N. M. Green
A. L. Greenbaum
C. Greenwood
G. Gregoriadis
N. A. Gregson
D. Grierson
W. G. Griffin
J. R. Griffiths
M. I. Gurr
H. Gutfreund
S. Gutteridge
B. A. Haddock
C. N. Hales
A. P. Halestrap
S. E. Halford
H. Hall
M. A. Hall
T. Hallinan
B. Halliwell
W. A. Hamilton
V. Hansson
T. E. Hardingham
K. G. Hardy
D. A. Harris
E. J. Harris
H. E. Harris
P. Harrison
R. Harrison
I. C. Hart
E. Hartree
J. Harwood
R. Harwood
J. N. Hawthorne
D. F. Heath
F. W. Hemming
D. A. Hems
D. G. Herries
G. M. Herring
T. R. Hesketh
S. J. Higgins
R. H. Hinton
A. R. Hipkiss
C. H. S. Hitchcock
R. Hoffenberg
J. G. Hoggett
J. J. Holbrook
J. S. Holden
M. Holder
G. Holder
G. Holman
A. M. Holmes
W. E. Hornby
D. Hough
M. D. Houslay
S. L. Howell
D. P. Hucklesby
A. K. Huggins
N. C. Hughes-Jones
N. Hutson
H. P. A. Illing
J. I. Illingworth
W. J. Ingledew
R. F. Itzhaki
G. Jack
A. H. Jackson
D. S. Jackson
J. B. Jackson
R. J. Jackson
W. Jacobson
S. S. Jaffertji
A. T. James
K. James
S. James
V. H. T. James
R. Jeffcoat
J. Jeffery
P. C. Jocelyn
P. John
R. John
E. W. Johns
P. Johnson
I. R. Johnston
A. D. Jones
C. T. Jones
D. S. Jones
E. A. Jones
J. G. Jones
K. W. Jones
<table>
<thead>
<tr>
<th>Name</th>
<th>Acknowledged By</th>
<th>Name</th>
<th>Acknowledged By</th>
</tr>
</thead>
<tbody>
<tr>
<td>M. N. Jones</td>
<td>D. J. Manners</td>
<td>H. G. Nimmo</td>
<td></td>
</tr>
<tr>
<td>O. T. G. Jones</td>
<td>R. D. Marshall</td>
<td>I. A. Nimmo</td>
<td></td>
</tr>
<tr>
<td>P. Jones</td>
<td>R. Martin</td>
<td>A. R. Noble</td>
<td></td>
</tr>
<tr>
<td>R. H. Jones</td>
<td>S. P. Martin</td>
<td>J. K. Norymberski</td>
<td></td>
</tr>
<tr>
<td>R. L. Jones</td>
<td>S. R. Martin</td>
<td>P. B. Nunn</td>
<td></td>
</tr>
<tr>
<td>V. C. Jordan</td>
<td>R. M. Mason</td>
<td>P. O'Carra</td>
<td></td>
</tr>
<tr>
<td>J. D. Judah</td>
<td>A. Mathias</td>
<td>A. G. Ogston</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. Matus</td>
<td>S. C. Oliver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E. B. Mawer</td>
<td>M. G. Ord</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R. J. Mayer</td>
<td>B. A. Orsi</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P. A. Mayes</td>
<td>D. J. Osborne</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. J. McCaffery</td>
<td>M. Owen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F. McCormick</td>
<td>R. H. Pain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. A. McDevitt</td>
<td>V. M. Pain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R. G. McDonald-Gibson</td>
<td>A. Paine</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. D. McGivan</td>
<td>T. N. Palmer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H. McIlwain</td>
<td>D. V. Parke</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P. McIntosh</td>
<td>D. S. Parsons</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P. McLean</td>
<td>S. M. Partridge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. McMartin</td>
<td>C. A. Pasternak</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G. D. Meakins</td>
<td>J. Paul</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T. B. Mepham</td>
<td>M. Peaker</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E. I. Mercer</td>
<td>C. K. Pearson</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. C. Metcalfe</td>
<td>J. L. Peel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R. H. Michell</td>
<td>J. F. Pennock</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B. Middleton</td>
<td>R. J. Pennington</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M. Midgley</td>
<td>H. R. Perkins</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P. Millburn</td>
<td>S. V. Perry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. Miller</td>
<td>M. F. Perutz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G. L. Mills</td>
<td>R. Perutz</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. J. Millward</td>
<td>C. F. Phelps</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. Milner</td>
<td>J. H. Phillips</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E. J. Milner-White</td>
<td>G. A. J. Pitt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. P. Milstein</td>
<td>R. Pitt-Rivers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M. Mitchell</td>
<td>P. Poat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>P. Mitchell</td>
<td>R. J. Pollitt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. J. G. Moir</td>
<td>J. W. Porteous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. C. Mollin</td>
<td>K. Powell</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W. Montague</td>
<td>N. C. Price</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A. L. Moore</td>
<td>J. D. Priddle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. H. Moore</td>
<td>G. K. Radda</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T. A. Moore</td>
<td>W. N. M. Ramsay</td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. J. O. R. Morris</td>
<td>D. Ramsden</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. Morton</td>
<td>D. B. Ramsden</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D. W. Moss</td>
<td>P. J. Randle</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. Mowbray</td>
<td>D. Reichl</td>
<td></td>
</tr>
<tr>
<td></td>
<td>J. Moyle</td>
<td>M. Rennie</td>
<td></td>
</tr>
<tr>
<td></td>
<td>H. Muir</td>
<td>C. Rice-Evans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>K. A. Munday</td>
<td>E. G. Richards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>E. A. Munn</td>
<td>D. Rickwood</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G. Murphy</td>
<td>T. Rink</td>
<td></td>
</tr>
<tr>
<td></td>
<td>K. Murray</td>
<td>C. Roberts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N. B. Myant</td>
<td>G. C. K. Roberts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>G. Robinson</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>C. H. Rochester</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R. Rodnight</td>
<td></td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT TO REFEREES

D. B. Roodyn
F. A. Rose
K. Rose
M. Rosemeyer
B. D. Ross
C. E. Rowe
B. E. Ryman

E. D. Saggerson
J. Saklatvala
J. A. Salmon
J. Sampson
J. G. Scaife
J. G. Schofield
W. Schwartz
M. C. Scrutton
M. J. Selwyn
P. Senior
S. Shall
A. M. Sheltawy
P. R. Shewry
C. A. Shuttleworth
K. Siddle
I. Silver
M. L. Sinnott
D. N. Skillerter
T. Slater
R. M. S. Smellie
J. D. Smith
K. E. Smith
S. A. Smith
K. Snell
G. A. Snow
P. J. Somers
A. K. Soutar
S. Spanner
N. Spencer
K. A. Stacey
D. A. Stansfield
F. S. Steven
C. Stevens
W. D. P. Stewart
D. E. S. Stewart-Tull
J. L. Stirling
A. Stockell Hartree
L. A. Stocken
M. Stoll

J. E. Storrey
D. Stribling
M. Stubbs
R. J. Sturgeon
K. E. Suckling
P. H. Sugden
I. W. Sutherland
P. F. Swann
B. E. P. Swoboda
E. Syrries
P. J. Syrett
G. H. Tait
J. R. Tata
I. J. Taylor
F. W. J. Teale
T. R. Tephy
D. R. Thatcher
E. W. Thomas
J. O. Thomas
P. Thomas
R. A. Thompson
R. J. Thompson
R. Y. Thomson
C. J. R. Thorne
K. Thorne
D. R. Threlfall
C. J. Thurston
E. Tipping
K. F. Tipton
G. M. Tonge
M. G. Townsend
A. Travers
I. P. Trayer
A. J. Trewavas
P. W. Trudgill
P. K. Tubbs
J. H. Turnbull
A. J. Turner
G. Turnock
D. D. Tyler

S. van Heyningen
F. Van Hoof
M.-R. van Schravendijk
G. Vassart
C. A. Vernon

M. Voaden
R. Wade
W. M. Waites
D. G. Walker
J. E. Walker
C. J. A. Wallace
P. L. Walton
R. M. Warn
A. Waters
W. Watkins
D. C. Watts
R. A. Weale
M. Webb
A. G. Weeds
D. J. Weir
I. C. West
J. H. Westwood
C. W. Wharton
F. R. Whatley
K. P. Wheeler
D. A. White
P. J. White
P. Whiteman
G. C. Whiting
D. G. Wild
J. M. Wilkinson
A. Williams
R. Williamson
E. D. Wills
H. Wilson
M. J. Wilson
G. P. Winter
M. H. Wisher
E. J. Wood
G. C. Wood
S. B. P. Wooding
J. F. Woodley
J. C. Wootton
M. Worwood
J. M. Wrigglesworth
C. H. Wynn
D. W. Yates
D. W. Young
M. Young
## INDEX OF AUTHORS

| Ahmed, K. | 739 | Harris, D. A. | 967 | Prebble, J. | 767 |
| Ali, S. Y. | 683 | Harris, E. J. | 983 | Prinz, R. | 671 |
| Ashby, P. | 865 | Hassenen, I. E. | 885 | Prpić, V. | 705 |
| Bayliss, M. T. | 683 | Hems, D. A. | 893 | Rachmeler, M. | 695 |
| Beebee, T. J. C. | 715 | Hems, R. | 733 | Ramadan-Talib, Z. | 767 |
| Bennett, D. P. | 865 | Hers, H.-G. | 791 | Read, W. W. C. | 733 |
| Blackwell, C. M. | 751 | Hozumi, M. | 665 | Reid, R. A. | 1011 |
| Borum, P. R. | 677 | Hue, L. | 791 | Richards, D. A. | 899 |
| Bourbon, J. | 785 | Jarrett, I. G. | 805 | Robinson, D. S. | 865 |
| Brindley, D. N. | 777 | Johnson, T. C. | 695 | Rogers, A. | 727 |
| Buddecke, E. | 671 | Joseph, S. K. | 827, 837 | Savolainen, M. J. | 885 |
| Burgess, R. J. | 919, 927 | Keir, H. M. | 933 | Scaife, J. R. | 799 |
| Bygrave, F. L. | 705 | Keulemans, K. | 959 | Schwermann, J. | 671 |
| Chin, J. G. | 899 | Krebs, H. A. | 733 | Smith, G. S. | 1011 |
| Clark, J. B. | 951 | | | Smith, S. A. | 817 |
| Clark, M. G. | 805 | Lopez, A. | 873 | Speake, B. K. | 993 |
| Denton, R. M. | 899 | Lund, P. | 733 | Spencer, I. M. | 865 |
| Dodd, G. | 845 | Mayer, R. J. | 919, 927 | Spencer, T. L. | 705 |
| Elliott, K. R. F. | 817 | McGivan, J. D. | 827, 837 | Takenaga, K. | 665 |
| Feliu, J. E. | 791 | McPherson, M. A. | 855 | Teng, C. S. | 1003 |
| Ferré, P. | 759 | Melvin, W. T. | 933 | Teng, C. T. | 1003 |
| Funae, Y. | 977 | Menevse, A. | 845 | Tomida, M. | 665 |
| Funakawa, S. | 977 | Milenkovic, A. G. | 695 | Turner, J. M. | 751 |
| Gallagher, K. | 1003 | Mulder, G. J. | 959 | von Figura, K. | 671, 943 |
| Garton, G. A. | 799 | Murray, A. W. | 727 | Wahle, K. W. J. | 799 |
| Gilbert, M. | 785 | Nicholas, R. A. | 639 | Walker, J. H. | 919, 927 |
| Girard, J. R. | 759 | Nicholls, D. M. | 907 | Weber, E. | 943 |
| Giudicelli, Y. | 1007 | Ordal, G. W. | 639 | White, D. A. | 993 |
| Glenny, H. P. | 777 | Patel, T. B. | 951 | Whitton, P. D. | 893 |
| Goueli, S. A. | 739 | Perry, B. N. | 873 | Williamson, D. H. | 759 |
| Hales, C. N. | 855 | Petryshyn, R. A. | 907 | Wilson, M. J. | 739 |
| Halliday, D. | 733 | Pogson, C. I. | 817 | Yamamoto, K. | 977 |
| | | Poynder, T. M. | 845 | Yamamoto, Y. | 665 |
INDEX OF AUTHORS

AHKONG, Q. F. see QUIRK, S. J. 159–167
ALI, S. Y. see BAYLISS, M. T. 683–693
ANDERSSON, A. Opposite effects of starvation on oxidation of [14C]adenosine and adenosine-induced insulin release by isolated mouse pancreatic islets 619–621
ASHBY, P., BENNETT, D. P., SPENCER, I. M. & ROBINSON, D. S. Post-translational regulation of lipoprotein lipase activity in adipose tissue 865–872
ASINA, S. see JAIN, K. 31–37
AUSTIN, L. see KWOK, C. T. 15–22
AZOULAY, E. see GIORDANO, G. 553–561
BALLARD, F. J. see CHANDLER, C. S. 151–158
BARTRIT, T., BREAKEFIELD, X. O. & GREENGARD, P. Regulation of synthesis of guanosine 3′:5′-cyclic monophosphate in neuroblastoma cells 119–127
BATES, D. J., PERRETT, D. & MOWBRAY, J. Systematic variations in the content of the purine nucleotides in the steady-state perfused rat heart. Evidence for the existence of controlled storage and release of adenine nucleotides 485–493
BATES, P. C. see LAURENT, G. J. 393–401, 419–427
BAYLISS, M. T. & ALI, S. Y. Age-related changes in the composition and structure of human articular-cartilage proteoglycans 683–693
BEEBE, T. J. C. The use of rat liver nucleoloplas for the characterization of heterogeneous nuclear ribonucleic acid synthesis in vitro 715–725
BENTO, M. & WILLIAMSON, D. H. Evidence for a reciprocal relationship between lipogenesis and ketogenesis in hepatocytes from fed virgin and lactating rats 331–334
BENNETT, D. P. see ASHBY, P. 865–872
BERTHELIER, M. see THOMOPoulos, P. 169–174
BETTERIDGE, A. & WALLIS, M. Stimulation of anterior pituitary prolactinlagin E content and somatotropin (growth hormone) synthesis by phospholipase A 319–323
BING, R. F. & SCHULSTER, D. Adenosine 3′:5′-cyclic monophosphate production and steroidogenesis by isolated rat adrenal glomerulosa cells. Effects of angiotensin II and [Sar1,Ala8]angiotensin II 39–45
BONNEY, R. J., WHIGHTMAN, P. D., DAVIES, P., SADOWSKI, S. J., KUEHL, F. A., JR. & HUMES, J. L. Regulation of prolactinlagin synthesis and of the selective release of lysosomal hydrolases by mouse peritoneal macrophages 433–442
BOOTH, A. see MCMLLAN, R. M. 595–598
BOOTH, R. F. G. & CLARK, J. B. A rapid method for the preparation of relatively pure metabolically competent synaptosomes from rat brain 365–370
BORUM, P. R. Variation in tissue carnitine concentrations with age and sex in the rat 677–681
BOSCHERO, A. C. see SENER, A. 217–232
BOTHAM, G. M. see QUIRK, S. J. 159–167
BOURBON, J. see GILBERT, M. 785–789
BRADFORD, N. M. see JOSEPH, S. K. 827–836
BREAKEFIELD, X. O. see BARTFAY, T. 119–127; CROOKS, P. A. 187–196
BRINDLEY, D. N. see GLENNY, H. P. 777–784
BRYLA, J. see ZALESKI, J. 563–568
BUCKLEY, W. T. & MILLIGAN, L. P. Participation of cysteine and cystine in inactivation of tyrosine aminotransferase in rat liver homogenates 449–454
BUCKSHEE, K. see KASID, A. 531–539
BUDDECKE, E. see PRINZ, R. 671–676
BURGESS, R. J., WALKER, J. H. & MAYER, R. J. Choice of precursors for the measurement of protein turnover by the double-isotope method. Application to the study of mitochondrial proteins 919–926
BURGESS, R. J. see also WALKER, J. H. 927–932
BURNSIDE, J. see SCHNEIDER, D. L. 75–82
BYGRAVE, F. L. see PRPIC, V. 705–714
CAMPBELL, A. K. & DORMER, R. L. Inhibition by calcium ions of adenosine cyclic monophosphate formation in sealed pigeon erythrocyte 'ghosts'. A study using the photoprotein obelin 53–66
CARTENI-FARINA, M. see DE ROSA, M. 1–7
CASTIGLIONE, C. M. see CROOKS, P. A. 187–196
CHANDLER, C. S. & BALLARD, F. J. Accelerated breakdown of reticulocyte protein formed under conditions of amino acid depletion 151–158
CHAPMAN, M. J. see THOMOPoulos, P. 169–174
CHATTOPADHYAY, S. see SAMANTA, T. B. 593–594
CHAUDHURI, G. see MYATT, L. 523–529
CHIN, J. G. see DENTON, R. M. 899–906
CLARK, J. B. see BOOTH, R. F. G. 365–370; PALTE, T. B. 951–958
CLARK, M. G. & JARRETT, I. G. Responsiveness to glucagon by isolated rat hepatocytes controlled by the redox state of the cytosolic nicotinamide–adenine dinucleotide couple acting on adenosine 3′:5′-cyclic monophosphate phosphodiesterase 805–816
CLARK, M. G. see also WILLSAMS, J. F. 241–256, 257–282
CLIFFORD, A. J. see HOOVER-PLOW, J. L. 137–142
COA, A. A. see LEADER, D. P. 569–572
COWARD, J. K. see CROOKS, P. A. 187–196
CROOK, R. B. & TOMKINS, G. M. Effect of glutamine on the degradation of glutamine synthetase in hepatoma tissue-culture cells 47–52
CURTIS, C. G. see DESAI, R. 455–462; POWELL, G. M. 443–448

Vol. 176

Index of Authors
INDEX OF AUTHORS

DAS, C. see RAMAKRISHNAN, S. 599–602
DAVIDSON, M. M. L. see HASLAM, R. J. 83–95
DAVIES, P. see BONNEY, R. J. 433–442
DAWSON, R. M. C. see IRVINE, R. F. 475–484
DE ROSA, S. see DE ROSA, M. 1–7
DECHATELET, L. R. see IVerson, D. B. 175–178
DENARO, M. see MONTANARO, L. 371–379
DENTON, R. M., RICHARDS, D. A. & CHIN, J. G. Calcium ions and the regulation of NAD+--linked isocitrate dehydrogenase from the mitochondria of rat heart and other tissues 899–906
DENTON, R. M. see also HEMS, D. A. 627–629
DESJARDINS, J. V. see HASLAM, R. J. 83–95
DEVIS, G. see SENER, A. 217–232
DODD, G. see MENEVE, A. 845–854
DOEBBER, T. W. see SCHLEISINGER, P. H. 103–109
DORMER, R. L. see CAMPBELL, A. K. 53–66
DOU, J. H. see GIORGIANO, G. 553–561
DUNHAM, S. M. & THURSTON, C. F. Control of isocitrate lyase synthesis in Chlorella fusca var. vacuolata. Rate of enzyme synthesis in the presence and absence of acetate measured by [35S]methionine labelling and immunoprecipitation 179–185
ELDER, M. G. see MYATT, L. 523–529
ELLAR, D. J. see HOGARTH, C. 197–203
ELLIOTT, K. R. F. see SMITH, S. A. 817–825
ELLIOTT, W. H. see PEARCE, P. D. 611–614
Felú, J. E. see HUE, L. 791–797
FERRÉ, P. & WILLIAMSON, D. H. Evidence for the participation of aspartate aminotransferase in hepatic glucose synthesis in the suckling newborn rat 335–338
FEY, S. see HUVOS, P. 381–391
FREEMAN, D. see EDELSTEIN, S. 111–117
FUNAE, Y. see FUNAKAWA, S. 977–981
FUNAKAWA, S., FUNAE, Y. & YAMAMOTO, K. Conversion between renin and high-molecular-weight renin in the dog 977–981
GALLAGHER, K. see TENG, C. S. 1003–1006
GALLET, D. see DAZORD, A. 233–239
GAMBACUTA, A. see DE ROSA, M. 1–7
GARLICK, P. J. An analysis of errors in estimation of the rate of protein synthesis by constant infusion of a labelled amino acid 402–405
GARTON, G. A.: see SCAIFE, J. R. 799–804
GASPERI-CAMPANI, A. see MONTANARO, L. 371–379
GILBERT, M. & BOURDON, J. Turnover of liver glycogen in the rat foetus 785–789
GIORDANO, G., GRILLET, L., ROSET, R., DOU, J. H., AZOULAY, E. & HADDOCK, B. A. Characterization of an Escherichia coli K12 mutant that is sensitive to chlorate when grown aerobically 553–561
GIRARD, J. R. see FERRÉ, P. 759–765; ROBINSON, A. M. 343–346
GIUDICELLI, Y. Thyroid-hormone modulation of the number of β-adrenergic receptors in rat fat-cell membranes 1007–1010
GLENNY, H. P. & BRINDLEY, D. N. The effects of cortisol, corticotropin and thyroxine on the synthesis of glycerolipids and on the phosphatidate phosphohydrolase activity in rat liver 777–784
GLINSWANN, W. H. see TAO, S.-H. 347–350
GOLDSPIKN, D. F. The effects of food deprivation on protein turnover and nucleic acid concentrations of active and immobilized extensor digitorum longus muscles of the rat 603–606
GOMEZ-FERNANDEZ, J. C. & HARRIS, D. A. A thermodynamic analysis of the interaction between the mitochondrial coupling adenosine triphosphatase and its naturally occurring inhibitor protein 967–975
GORDON, J. L. see McMillan, R. M. 595–598
GORGA, F. R. see SCHNEIDER, D. L. 75–82
GOUEL, S. A. see AHMED, K. 739–750
GRANDCHAMP, B., PHUNG, N. & NORDMANN, Y. The mitochondrial localization of coproporphyrinogen III oxidase 97–102
GRANT, M. E. see HEATHCOTE, J. G. 283–294
GREENGARD, P. see BARTFAI, T. 119–127
GRIFFIN, H. D. & HAWTHORNE, J. N. Calcium-activated hydrolysis of phosphatidyl--myo-inositol 4-phosphate and phosphatidyl--myo-inositol 4,5-bisphosphate in guinea-pig synaptosomes 541–552
GRILLET, L. see GIORDAN, G. 553–561
HADDOCK, B. A. see GIORDANO, G. 553–561
HALES, C. N. see MCPHERSON, M. A. 855–863
HALL, C. & LIM, L. The metabolism of high-molecular-weight ribonucleic acid in hypothalamic and cortical regions of the developing female rat brain 511–521
HALDIDAY, D. see KREBS, H. A. 733–737
HARDWICKE, P. M. D. see HUVOS, P. 381–391
HARRIS, D. A. see GOMEZ-FERNANDEZ, J. C. 967–975
HARRIS, E. J. Anion/calcium ion ratios and proton production in some mitochondrial calcium ion uptakes 983–991
HASLAM, R. J., DAVIDSON, M. M. L. & DESJARDINS, J. V. Inhibition of adenylate cyclase by adenosine analogues in preparations of broken and intact human platelets. Evidence for the unidirectional control of platelet function by cyclic AMP 83–95
HASSINEN, I. E. see SAVOLAINEN, M. J. 885–892
HAWTHORNE, J. N. see GRIFFIN, H. D. 541–552

1978
INDEX OF AUTHORS


HEMINGTON, N. see IRVINE, R. F. 475–484

HEMS, D. A., MCCORMACK, J. G. & DENTON, R. M. Activation of pyruvate dehydrogenase in the perfused rat liver by vasopressin 627–629

HEMS, D. A. see also WHITTON, P. D. 893–898

HEMS, R. see KREBS, H. A. 733–737

HERCHELZ, A. see SENER, A. 217–232

HERS, H.-G. see HUE, L. 791–797

HILL, F. see HISSIN, P. J. 205–215

HINGORANI, V. see KASID, A. 531–539

HISSIN, P. J. & HILL, R. α-Aminoisobutyrate transport into cells from R3230AC mammary adenocarcinoma. Evidence for sodium ion-dependent and -independent carrier-mediated entry and effects of diabetes 205–215

HOGARTH, C. & ELLAR, D. J. Calcium accumulation during sporulation of Bacillus megaterium KM 197–203


HOUeTON, B. see NUMMo, H. G. 607–610

HOZUMI, M. see TOMIDA, M. 665–669

HUANG, F. L. see TAO, S.-H. 347–350

HUANG, M.-T. see MACDONALD, M. J. 495–504


HUGHES, B. P. & BARRITT, G. J. Effects of glucagon and N⁰O₂-dibutyryladenosine 3'5'-cyclic monophosphate on calcium transport in isolated rat liver mitochondria 295–304

HUGHES, J. & MELLGOS, G. Inhibition of isoleucyltransfer ribonucleic acid synthetase in Escherichia coli by pseudomonic acid 305–318

HUMES, J. L. see BONNEY, R. J. 433–442

HUTTON, J. C. see SENER, A. 217–232


INFANTE, J. P. & KINSELLA, J. E. Control of phosphatidyl-choline synthesis and the regulatory role of choline kinase in rat liver. Evidence from essential-fatty acid-deficient rats 631–633

IRVINE, R. F., HEMINGTON, N. & DAWSON, R. M. C. The hydrolysis of phosphatidylinositol by lysosomal enzymes of rat liver and brain 475–484

IVerson, D. B., WANG-IVERSON, P., SPITZNAGEL, J. K. & DeCHATELET, L. R. Subcellular localization of NAD(P)H oxidase(s) in human neutrophilic polymorphonuclear leucocytes 175–178

JAIN, K., ASINA, S. & LOGOTHETOPOULOS, J. Stimulation of proinsulin biosynthesis and insulin release by pyruvate and lactate 31–37

JARRET, I. G. see CLARK, M. G. 805–816

JOCelyn, P. C. The reduction of diamide by rat liver mitochondria and the role of glutathione 649–664

JOHNSON, T. C. see MILenkoVIC, A. G. 695–704

JOSEPH, S. K., BRADFORD, N. M. & McgivAN, J. D. Characteristics of the transport of alanine, serine and glutamine across the plasma membrane of isolated rat liver cells 827–836

JOSEPH, S. K. & McgivAN, J. D. The effects of ammonium chloride and bicarbonate on the activity of glutaminase in isolated liver mitochondria 837–844

KANAGASUNThERAM, P. & LIM, S. C. Calcium-dependent inhibition of protein synthesis in rat parotid gland 23–29

KASID, A., BUCKSHEE, K., HINGORANI, V. & LAUMAS, K. R. Interaction of progestins with steroid receptors in human uterus 531–539

KAWAZU, S. see SENER, A. 217–232

KEIR, H. M. see MELVIN, W. T. 933–941

KEULEMANS, K. see MULDER, G. J. 959–965

KINSELLA, J. E. see INFANTE, J. P. 631–633


KUEHL, F. A., JR. see BONNEY, R. J. 433–442

KWOK, C. T. & AUSTIN, L. Phospholipid composition and metabolism in mouse muscular dystrophy 15–22

Lagrange, D. see Thomopoulos, P. 169–174

Lardy, H. A. see MacDonald, M. J. 495–504

LATIF, A. see NAKHLA, A. M. 339–342

LAUdAT, M.-H. see Thomopoulos, P. 169–174

LAUMAS, K. R. see KASID, A. 531–539

LAUReNT, G. J., SPARROW, M. P., BATES, P. C. & MILLWARD, D. J. Turnover of muscle protein in the fowl. Collagen content and turnover in cardiac and skeletal muscles of the adult fowl and the changes during stretch-induced growth 419–427

LAUReNT, G. J., SPARROW, M. P., BATES, P. C. & MILLWARD, D. J. Turnover of muscle protein in the fowl (Gallus domesticus). Rates of protein synthesis in fast and slow skeletal, cardiac and smooth muscle of the adult fowl 393–401

LAUReNT, G. J., SPARROW, M. P. & MILLWARD, D. J. Turnover of muscle protein in the fowl. Changes in rates of protein synthesis and breakdown during hypertrophy of the anterior and posterior latissimus dorsi muscles 407–417

LEADER, D. P. & COIA, A. A. The acidic ribosomal phosphoprotein of eukaryotes and its relationship to ribosomal proteins L7 and L12 of Escherichia coli 569–572

LEToVaARA, P. Oxidation of glycine by Phaseolus leghaemoglobin with associated catabolic reactions at the haem 351–358


LIM, L. see HALL, C. 511–521; MYATT, L. 523–529

LIM, S. C. see KANAGASUNThERAM, P. 23–29

LOGOTHETOPOULOS, J. see JAIN, K. 31–37

LOPEZ, A. see PERRY, B. N. 873–883

LUCY, J. A. see QUIRK, S. J. 159–167

LUND, P. see KREBS, H. A. 733–737

LYNCH, A. see TAO, S.-H. 347–350

Vol. 176
INDEX OF AUTHORS

NACHTLS, D. G. The regulation of extramitochondrial free calcium ion concentration by rat liver mitochondria 463–474

NICHOLLS, D. M. see PETRYSHYN, R. A. 907–917

NIMMO, H. G. & HOUSTON, B. Rat adipose-tissue glycerol phosphate acyltransferase can be inactivated by cyclic AMP-dependent protein kinase 607–610

NIFF, D. see EDELSTEIN, S. 111–117

NORDMANN, Y. see GRANDCHAMP, B. 97–102

OLAVESEN, A. H. see POWELL, G. M. 443–448

ORD, M. G. & STOCKEN, L. A. Initiation of transcription in normal and phosphorylated rat liver nucleosomes 615–618

ORDAL, G. W. see NICHOLS, R. A. 639–647

PALMER, D. N., RABIN, B. R. & WILLIAMS, D. J. A sub-population of rat liver membrane-bound ribosomes that are detached in situ by carcinogens and centri- fugation 9–14


PEARCE, P. D., MAY, B. K. & ELLIOTT, W. H. Proteinase-sensitive release of enzymes from pancreatic microsomal fraction 611–614

PÉGORIER, J.-P. see FERRÉ, P. 759–675

PERRETT, D. J. see BATES, D. J. 485–493

PERY, B. N. & LOPEZ, A. The binding of 3H-labelled oestradiol- and progesterone-receptor complexes to hypothalamic chromatin of male and female sheep 873–883

PERTTILA, U. see LEHTOVAARA, P. 359–364

PETRYSHYN, R. A. & NICHOLS, D. M. Studies of a factor from dystrophic mouse muscle inhibitory towards protein synthesis 907–917

PHUNG, N. see GRANDCHAMP, B. 97–102

POGSON, C. I. see SMITH, S. A. 817–825


POWELL, G. M. see also DESAI, R. 455–462

POYNED, T. M. see MENEVSE, A. 845–854

PREBBLE, J. see RAMADAN-TALIB, Z. 767–775

PRINZ, R., SCHWERMANN, J., BUDGECKE, E. & VON FIGURA, K. Endocytosis of sulphated proteoglycans by cultured skin fibroblasts 671–676

PRIPIC, V., SPENCER, T. L. & BYGRAVE, F. L. Stable enhancement of calcium retention in mitochondria isolated from rat liver after the administration of glucagon to the intact animal 705–714

QUIRK, S. J., AHKONG, Q. F., BOTHAM, G. M., VOS, J. & LUCY, J. A. Membrane proteins in human erythrocytes during cell fusion induced by oleoylglycerol 159–167

RABIN, B. R. see PALMER, D. N. 9–14

RACHMELER, M. see MILENKOVIC, A. G. 695–704

RAMADAN-TALIB, Z. & PREBBLE, J. Photosensitivity of respiration in Neurospora mitochondria. A protective role for carotenoid 767–775

1978
INDEX OF AUTHORS

RAMAKRISHNAN, S., Das, C. & Talwar, G. P. Recognition of the beta-subunit of human chorionic gonadotropin and sub-determinants by target tissue receptors 599–602

READ, W. C. see Krebs, H. A. 733–737

Reid, R. A. see Smith, G. S. 1011–1014

Richards, D. A. see Denton, R. M. 899–906

Richards, R. J. see Desai, R. 455–462


Robinson, D. S. see Ashby, P. 865–872

Rodbman, J. S. see Schlesinger, P. H. 103–109

Rogoluez, L. M. see Whitten, P. D. 893–898

Rogers, A. see Murray, A. W. 727–732

Rosset, R. see Giordano, G. 553–561

Roy, N. see Samanta, T. B. 593–594

Sadowski, S. J. see Bonney, R. J. 433–442

Saez, J. M. see Dazor, A. 233–234

Samanta, T. B., Roy, N. & Chattopadhyay, S. An improved 11β-hydroxylation of progesterone by Aspergillus oryceus TS 593–594

Savolainen, M. J. & Hassinen, I. E. Mechanisms for the effects of ethanol on hepatic phosphatidic phosphohydrolase 885–892

Scaife, J. R., Wahlke, K. W. J. & Garton, G. A. Utilization of methylmalonate for the synthesis of branched-chain fatty acids by preparations of chicken liver and sheep adipose tissue 799–804


Schneider, D. L., Burnside, J., Gorga, F. R. & Nettleton, C. J. Properties of the membrane proteins of rat liver lysosomes. The majority of lysosomal membrane proteins are exposed to the cytoplasm 75–82

Schulster, D. see Bing, R. F. 39–45

Schwermann, J. see Prinz, R. 671–676

Sear, C. H. J. see Heathcote, J. G. 283–294


Sharp, G. W. G. see Fischer, J. 505–510

Sheeves, M. see Edelstein, S. 111–117

Smith, G. S. & Reid, R. A. The influence of respiratory state on monoamine oxidase activity in rat liver mitochondria 1011–1014


Somers, G. see Sener, A. 217–232

Sparrow, M. P. see Laurent, G. J. 393–401, 407–417, 419–427

Speake, B. K. & White, D. A. Lipid-linked oligosaccharides containing glucose in lactating rabbit mammary gland 993–1000

Spencer, I. M. see Ashby, P. 865–872

Spencer, T. L. see Prpic, V. 705–714

Sperti, S. see Montanaro, L. 371–379

Spitznagel, J. K. see Iverson, D. B. 175–178

Stahl, P. see Schlesinger, P. H. 103–109

Stirpe, F. see Montanaro, L. 371–379

Stocken, L. A. see Ord, M. G. 615–618

Strange, P. G. A method for measuring relative changes in guanosine 3′,5′-cyclic monophosphate in mouse neuroblastoma cells on muscarinic cholinergic stimulation 583–590

Sulens, C. H. see Crooks, P. A. 187–196

Sunde, M. L. see Maruyama, K. 573–582

Swick, R. W. see Maruyama, K. 573–582

Takenaga, K. see Tomida, M. 665–669

Talwar, G. P. see Ramakrishnan, S. 599–602


Taylor, W. H. see Walker, V. 429–432

Teng, C. S., Gallagher, K. & Teng, C. T. Isolation of a high-molecular-weight high-mobility-group-type non-histone protein from hen oviduct 1003–1006

Teng, C. S. & Teng, C. T. Studies on sex-organ development. Oestrogenic effect on ornithine decarboxylase activity in the differentiating Müllerian ducts and other organs of the chick embryo 143–149

Teng, C. T. see Teng, C. S. 143–149, 1003–1006

Testoni, G. see Montanaro, L. 371–379

Tetley, T. D. see Desai, R. 455–462

Thomas, S. E. see Brown, S. B. 327–330


Thurston, C. F. see Dunham, S. M. 179–185

Tomida, M., Takenaga, K., Yamamoto, Y. & Hozumi, M. Enhancement by double-stranded polynucleotides of production by cultured mouse peritoneal macrophages of differentiation-stimulating factor(s) for mouse myeloid leukaemic cells 665–669

Tomkins, G. M. see Crook, R. B. 47–52

Tuan, R. S. & Zaike, J. Functional involvement of carbonic anhydrase in calcium transport of the chick chorioallantoic membrane 67–74

Turner, J. M. see Blackwell, C. M. 751–757


von Figura, K. see also Prinz, R. 671–676

Vos, J. see Quirk, S. J. 159–167

Wahle, K. W. J. see Scaife, J. R. 799–804
INDEX OF AUTHORS

Walker, J. H., Burgess, R. J. & Mayer, R. J. Relative rates of turnover of subunits of mitochondrial proteins 927–932

Walker, J. H. see also Burgess, R. J. 919–926

Walker, V. & Taylor, W. H. Ovalbumin digestion by human pepsins 1, 3 and 5 429–432

Wallis, M. see Betteridge, A. 319–323

Wang-Iverson, P. see Iverson, D. B. 175–178

Weber, E. see von Figura, K. 943–950

White, D. A. see Speake, B. K. 993–1000

White, R. see Schlesinger, P. H. 103–109

Whitton, P. D., Rodrigues, L. M. & Hems, D. A. Stimulation by vasopressin, angiotensin and oxytocin of gluconeogenesis in hepatocyte suspensions 893–898

Wightman, P. D. see Bonney, R. J. 433–442

Williams, D. J. see Palmer, D. N. 9–14

Williams, J. F., Blackmore, P. F. & Clark, M. G. New reaction sequences for the non-oxidative pentose phosphate pathway 257–282

Williams, J. F., Clark, M. G. & Blackmore, P. F. The fate of 14C in glucose 6-phosphate synthesized from [1-14C]Ribose 5-phosphate by enzymes of rat liver 241–256

Williams, T. see Newsholme, E. A. 623–626

Williams-Ashman, H. G. see Ahmed, K. 739–750


Wilson, M. J. see Ahmed, K. 739–750

Wilson, S. B. Cyanide-insensitive oxidation of ascorbate + NNN'N'-tetramethyl-p-phenylenediamine mixture by mung-bean (Phaseolus aureus) mitochondria. An energy-linked function 129–136

Yamamoto, K. see Funakawa, S. 977–981

Yamamoto, Y. see Tomida, M. 665–669

Zaleski, J. & Bryla, J. Effect of alloxan-diabetes on gluconeogenesis and ureogenesis in isolated rabbit liver cells 563–568

Zamboni, M. see Montanaro, L. 371–379

Zappia, V. see De Rosa, M. 1–7

Zrike, J. see Tuan, R. S. 67–74

1978
INDEX OF SUBJECTS

Index of Subjects

2-Acetamidofluorene, evidence for the presence of a subpopulation of rat liver membrane-bound ribosomes that are detached by, and other carcinogens and by centrifugation (Palmer, D. N., Rabin, B. R. & Williams, D. J.) 9–14

Acetate, effect of, on the rate of biosynthesis of isocitrate lyase in Chlorella fusca var. vacuolata (Dunham, S. M. & Thurston, C. F.) 179–185

Acetoacetyl-coenzyme A deacylase, changes in the activities of 3-hydroxy-3-methylglutaryl-coenzyme A synthase and, in rat brain during postnatal development (Patel, T. B. & Clark, J. B.) 951–958

N-2-Acetylaminoﬂuorene, see 2-Acetamidofluorene

N-Acetylglucosamine residues, terminal, role of rat liver non-parenchymal cells in the clearance from plasma of glycoproteins with, and mannose residues (Schlesinger, P. H., Dobbker, T. W., Mandell, B. F., White, R., DeSchryver, C., Rodman, J. S., Miller, M. J. & Stahl, P.) 103–109

Adenine nucleotides, systematic variations in the concentrations of, and other purine nucleotides in steady-state perfused rat heart (Bates, D. J., Perrett, D. & Mowbray, J.) 485–493

Adenocarcinoma R3230AC cells, mammary-gland, rat, sodium ion-dependent and, independent transport of 2-aminoisobutyrate into, and the effects of streptozotocin-induced diabetes in the host animal (Hissin, P. J. & Hill, R.) 205–215

Adenosine 3':5'-cyclic monophosphate, 6-N,2'-O-dibutylryl-, effects of, on other agonists in the biosynthesis and release of amylase by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855–863

Adenosine 3':5'-cyclic monophosphate, 6-N,2'-O-dibutylryl-, effects of guacocan and, on the transport of calcium ions by isolated rat liver mitochondria (Hughes, B. P. & Barratt, G. J.) 295–304

Adenosine 3':5'-cyclic monophosphate, effects of angiotensin II and [1-sarcosine,8-alanine]angiotensin II on the production of, and the biosynthesis of steroids by isolated rat adrenal-gland-cortex glomerulosacells (Bing, R. F. & Schulter, D.) 39–45

Adenosine 3':5'-cyclic monophosphate, evidence for the unidirectional control by, of the function of human islets (Haslam, R. J., Davidson, M. M. L. & Desjardins, J. V.) 83–95

Adenosine 3':5'-cyclic monophosphate phosphodiesterase, effect of the redox state of the cytosolic nicotinamide–adenine dinucleotide couple on the activity of, and its role in the control of the responsiveness of isolated rat hepatocytes to glucagon (Clark, M. G. & Jarrett, I. G.) 805–816

Adenosine 3':5'-cyclic monophosphate, use of obelin in a study of the inhibition by calcium ions of the formation of, in sealed pigeon erythrocyte 'ghosts' (Campbell, A. K. & Dormer, R. L.) 53–66

Adenosine, inhibition by analogues of, of the activity of adenylate cyclase in preparations of broken and intact human islets (Haslam, R. J., Davidson, M. M. L. & Desjardins, J. V.) 83–95

Adenosine, opposite effects of starvation on the oxidation of, and on adenosine-induced release of insulin by isolated mouse islets of Langerhans (Andersson, A.) 619–621

Adenosine triphosphatase, coupling, mitochondrial, heart, ox, thermodynamic analysis of the interaction between, and its naturally occurring inhibitor protein (Gomez-Fernandez, J. C. & Harris, D. A.) 967–975

Adenylate cyclase, inhibition by adenosine analogues of the activity of, in preparations of broken and intact human islets (Haslam, R. J., Davidson, M. M. L. & Desjardins, J. V.) 83–95

Adenylate cyclase, role of, in the effects of cholera toxin and guanosine [βy-imido]triphosphate on the affinity of the b-adrenergic receptors of toad erythrocyte membranes (Fischer, J. & Sharp, G. W. G.) 505–510

Adipocytes, epididymal, rat, isolated, modulation by thyroid hormones of the number of b-adrenergic receptors in membranes of (Giudicelli, Y.) 1007–1010


Adipose tissue, epididymal, rat, inactivation of glycerol phosphate acyltransferase of, catalysed by adenosine 3':5'-cyclic monophosphate-dependent protein kinase and its possible involvement in the regulation of the biosynthesis of triacylglycerols (Nimmo, H. G. & Houston, B.) 607–610

Adipose tissue, epididymal, rat, post-translational regulation of the activity of lipoprotein lipase in (Ashby, P., Bennett, D. P., Spencer, I. M. & Robinson, D. S.) 865–872

Adipose tissue, inguinal, sheep, utilization of methylmalonate for the biosynthesis of branched-chain fatty acids by preparations of (Scaife, J. R., Wahl, K. W. J. & Garton, G. A.) 799–804

Adrenal gland, rat, effect of the administration of corticotropin on the biosynthesis of a specific cytosolic protein in (Dazord, A., Gallet, D. & Saez, J. M.) 233–239

Adrenal-gland cortex, rat, effects of angiotensin II and [1-sarcosine,8-alanine]angiotensin II on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of steroids by glomerulosacells isolated from (Bing, R. F. & Schulter, D.) 39–45

Adrenaline, effects of, and other agents on the biosynthesis and release of amylase by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855–863


Adrenaline, role of, in the post-translation regulation of the activity of lipoprotein lipase in rat epididymal adipose tissue (Ashby, P., Bennett, D. P., Spencer, I. M. & Robinson, D. S.) 865–872

Adrenergic agonists, dependence on calcium ions of the inhibition by cholinergic agonists and, of the biosynthesis of protein in rat parotid-gland slices (Kanagasuntheram, P. & Lim, S. C.) 23–29

Vol. 176
β-Adrenergic receptors, membrane, erythrocyte, toad, effects of cholera toxin and guanosine [β-Imido]triphosphate on the affinity of (Fischer, J. & Sharp, G. W. G.) 505–510

β-Adrenergic receptors, modulation by thyroid hormones of the number of, in membranes of isolated rat epididymal adipocytes (Guidicelli, Y.) 1007–1010

Adrenocorticotropic, see Corticotropin

Age, changes in the composition and structure of human articular–cartilage proteoglycans with (Bayliss, M. T. & Ali, S. Y.) 683–693

Age, variation of the concentrations of carnitine in various rat tissues with sex and (Borum, P. R.) 677–681

Alamine, accelerated degradation of protein formed in rat and rabbit reticuloocytes under conditions of depletion of, and other individual amino acids (Chandler, C. S. & Ballard, F. J.) 151–158

Alamine, characteristics of the transport of serine, glutamine and, across the plasma membrane of isolated rat hepatocytes (Joseph, S. K., Bradford, N. M. & McGivan, J. D.) 827–836

Aldosterone, effects of angiotensin II and [1-sarcosine,8-alanine]angiotensin II on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of, and other steroids by isolated rat adrenal-gland-cortex glomerulosa cells (Bing, R. F. & Schulster, D.) 39–45

Alloxan-diabetes, see Diabetes, alloxan-induced

Amino acid, labelled, analysis of errors in estimation of the rate of biosynthesis of protein by constant infusion of, into an animal (Garlick, P. J.) 402–405

Amino acids, characteristics of the transport of, across the plasma membrane of isolated rat hepatocytes (Joseph, S. K., Bradford, N. M. & McGivan, J. D.) 827–836

Amino acids, individual, accelerated degradation of protein formed in rat and rabbit reticuloocytes under conditions of depletion of (Chandler, C. S. & Ballard, F. J.) 151–158

Amino acids, role of phosphoenolpyruvate carboxykinase in the metabolism of, in skeletal muscle and heart muscle of various animal species (Newsholme, E. A. & Williams, T.) 623–626

2-Aminoisobutyric, sodium ion-dependent and -independent transport of, into rat mammary-gland adeno-carcinoma R3230AC cells and the effects of streptozotocin-induced diabetes in the host animal (Hissin, P. J. & Hilf, R.) 205–215

3-Aminopicolinate, induction of hyperglycaemia and other metabolic effects of administration of, to the rat (MacDonald, M. J., Huang, M.-T. & Lardy, H. A.) 495–504

Ammonia, sources of, for the biosynthesis of urea by isolated rat hepatocytes (Krebs, H. A., Hems, R., Lund, P., Halliday, D. & Read, W. W. C.) 733–737

Ammonium chloride, effects of bicarbonate and, on the activity of glutaminase in isolated rat liver mitochondria (Joseph, S. K. & McGivan, J. D.) 837–844

Amylase, control of the biosynthesis and release of, by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855–863

α-Amylase, sensitivity towards proteins of the release of ribonuclease and, by rat pancreatic microsomal fraction (Pearce, P. D., May, B. K. & Elliott, W. H.) 611–614

Angiotensin, stimulation by vasopressin, oxytocin and, of gluconeogenesis in isolated rat hepatocytes (Whitton, P. D., Rodrigues, L. M. & Hems, D. A.) 893–898

Angiotensin II, effects of [1-sarcosine,8-alanine]angiotensin II and, on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of steroids by isolated rat adrenal-gland-cortex glomerulosa cells (Bing, R. F. & Schulster, D.) 39–45

Angiotensins I, II, [1-sarcosine,8-alanine], effects of angiotensin II and, on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of steroids by isolated rat adrenal-gland-cortex glomerulosa cells (Bing, R. F. & Schulster, D.) 39–45

Anions, ratios of, and calcium ions and the production of protons during the uptake of calcium ions by rat heart and liver mitochondria (Harris, E. J.) 983–991

Artemia salina, see Brine shrimp

Ascites cells, Krebs II, characterization of the acidic ribosomal phosphoprotein L7, from, and its relationship to Escherichia coli ribosomal proteins L7 and L12 (Leader, D. P. & Coia, A. A.) 569–572

Ascorbate, cyanide-insensitive uptake of oxygen by mung-bean mitochondria in the presence of a mixture of, and NNN'/N'-tetramethyl-p-phenylenediamine as electron donor (Wilson, S. B.) 129–136

Aspartate aminotransferase, evidence for the participation of, in the formation of glucose in liver of suckling newborn rats (Ferré, P. & Williamson, D. H.) 335–338

Aspergillus ochraceus TS, specific 11α-hydroxylation of progesterone by (Samanta, T. B., Roy, N. & Chattopadhyay, S.) 593–594

Bacillus megaterium KM, accumulation of calcium-ions during sporulation of (Hogarth, C. & Ellar, D. J.) 197–203

Bacillus subtilis, inhibition by pentachlorophenol and related uncouplers of oxidative phosphorylation of the transport of proline and glycine by (Nicholas, R. A. & Ordal, G. W.) 639–647

Bean, broad (Vicia faba), formation of isomers of biliverdin during the degradation of leghaemoglobins from root nodules of, and other leguminous plants (Lehtovaara, P. & Perttilä, U.) 359–364

Bean, kidney (Phaseolus vulgaris), formation of isomers of biliverdin during the degradation of leghaemoglobins from root nodules of, and other leguminous plants (Lehtovaara, P. & Perttilä, U.) 359–364

Bean, kidney (Phaseolus vulgaris), oxidation of glycine by leghaemoglobin from root nodules of, and associated catabolic reactions at the haem group (Lehtovaara, P.) 351–358

Bean, mung (Phaseolus aureus), cyanide-insensitive uptake of oxygen by mitochondria from, in the presence of ascorbate/NNN'/N'-tetramethyl-p-phenylenediamine mixture as electron donor (Wilson, S. B.) 129–136

Bean, soya (Glycine max), formation of isomers of biliverdin during the degradation of leghaemoglobins from root nodules of, and other leguminous plants (Lehtovaara, P. & Perttilä, U.) 359–364

BHK cells, see Cells, kidney, baby-hamster

Bicarbonate, effects of ammonium chloride and, on the activity of glutaminase in isolated rat liver mitochondria (Joseph, S. K. & McGivan, J. D.) 837–844
INDEX OF SUBJECTS

Bile, excretion of cyclohexylphenyl 4-sulphate in, in the guinea pig (Powell, G. M., Olavesen, A. H. & Curtis, C. G.) 443-448

Bile pigments, formation of, during the degradation of root-nodule leghaemoglobin from various leguminous plants (Lehtovaara, P. & Perttilä, U.) 359-364

Biliverdin, formation of, during the degradation of root-nodule leghaemoglobin from various leguminous plants (Lehtovaara, P. & Perttilä, U.) 359-364

Blood platelets, human, broken and intact, inhibition by adenosine analogues of the activity of adenylyl cyclase in preparations of (Haslam, R. J., Davidson, M. M. L. & Desjardins, J. V.) 83-95

Blood platelets, human, evidence that the formation of malondialdehyde in, is catalysed by thromboxane synthase (McMillan, R. M., MacIntyre, D. E., Booth, A. & Gordon, J. L.) 595-598

Blood, rat, changes in the concentrations of ketone bodies in, during postnatal development (Faucon, P., Pétiter, J.-P., Williamson, D. H. & Girard, J. R.) 759-765

Blood, rat, increased concentration of glucose in, and other metabolic effects of administration of 3-aminopicolinate to the animals (MacDonald, M. J., Huang, M.-T. & Lardy, H. A.) 495-504

Blood, rat, role of the liver non-parenchymal cells in the clearance of, of glycoproteins with terminal mannose and N-acetylgalcosamine residues (Schlesinger, P. H., Doeber, T. W., Mandell, B. F., White, R., DeS THREADS([^88...^92])

Brain, guinea-pig, activation by calcium ions of the hydrolysis of phosphatidil-myo-inositol 4-phosphate (diphosphoinositide) and phosphatidyl-myo-inositol 4,5-bisphosphate (triposphoinositide) by guinea-pig brain synaptosomes (Griffin, H. D. & Hawthorne, J. N.) 541-552

Brain, rat, changes in the activities of acetacetyl-coenzyme A deacetylase and 3-hydroxy-3-methylglutaryl-coenzyme A synthase in, during postnatal development (Patel, T. B. & Clark, J. B.) 951-958

Brain, rat, female, metabolism of high-molecular-weight ribonucleic acid in hypothalamic and cortical regions of, during development (Hall, C. & Lim, L.) 511-521

Brain, rat, hydrolysis of phosphatidylinositol by lysosomal enzymes of, and liver (Irvine, R. F., Hemington, N. & Dawson, R. M. C.) 475-484

Brain, rat, rapid method for the isolation of a relatively pure metabolically competent preparation of synaptosomes from (Booth, R. F. G. & Clark, J. B.) 365-370

Brine shrimp (Artemia salina), inhibitory effect of melecine on the elongation of polypeptide chains during the biosynthesis of protein catalysed by ribosomes from (Montanaro, L., Sperl, S., Zamboni, M., Denaro, M., Testoni, G., Gasperi-Campani, A. & Stirpe, F.) 371-379

Broad bean, see Bean, broad

Bufo marinus, see Toad

Calcitonin, possible role of 5-hydroxytryptamine as mediator in the action of, on rat gastrointestinal tract and pancreas (Nakhlà, A. M. & Latif, A.) 339-342

Calcium ions, accumulation of, during sporulation of Bacillus megaterium KM (Hogarth, C. & Ellar, D. J.) 197-203

Calcium ions, activation by, of the hydrolysis of phosphatidyl-myo-inositol 4-phosphate (diphosphoinositide) and phosphatidyl-myo-inositol 4,5-bisphosphate (triposphoinositide) by guinea-pig brain synaptosomes (Griffin, H. D. & Hawthorne, J. N.) 541-552

Calcium ions, anion/calcium ion ratios and production of protons during the uptake of, by rat heart and liver mitochondria (Harris, E. J.) 983-991

Calcium ions, characterization of human erythrocyte membrane proteins after cell fusion induced by oleoylglycerol in the presence of (Quirk, S. J., Ahkong, Q. F., Botham, G. M., Vos, J. & Lucy, J. A.) 159-167

Calcium ions, dependence on, of the inhibition by a-adrenergic agonists and cholinerigic agonists of the biosynthesis of protein in rat parotid-gland slices (Kaganusundaram, P. & Lim, S. C.) 23-29

Calcium ions, effects of glucagon and 6-N,2'-O-dibutryl-adenosine 3':5'-cyclic monophosphate on the transport of, by isolated rat liver mitochondria (Hughes, B. P. & Barratt, G. J.) 295-304

Calcium ions, functional involvement of carbonic anhydrase in the transport of, by chick-embryo choriorallantoic membrane (Tuan, R. S. & Zrike, J.) 67-74

Calcium ions, regulation of the extramitochondrial concentration of, by rat liver mitochondria (Nicholls, D. G.) 463-474

Calcium ions, role of, in the regulation of the activity of nicotinamide-adenine dinucleotide-linked isocitrate dehydrogenase in mitochondria from rat heart and other tissues (Denton, R. M., Richards, D. A. & Chin, J. G.) 899-906

Calcium ions, stable enhancement of the retention of, by isolated rat liver mitochondria after the administration of glucagon to the animal (Brpić, V., Spencer, T. L. & Bygrave, F. L.) 705-714

Calcium ions, use of obelin in a study of the inhibition by, of the formation of adenosine 3':5'-cyclic monophosphate in sealed pigeon erythrocyte 'ghosts' (Campbell, A. K. & Dorner, R. L.) 53-66

Calodirilla acidophila, pathway for the biosynthesis of polyamines in (De Rosa, M., De Rosa, S., Gambacorta, A., Carletti-Farina, M. & Zappia, V.) 1-7

Carbamoylcholine, effects of, and other agents on the biosynthesis and release of amylase by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855-863

Carbon isotope ([14C], distribution of, in glucose 6-phosphate biosynthesized from [1-14C]ribose 5-phosphate by a rat liver extract and its relevance to the pentose phosphate pathway for the metabolism of glucose (Williams, J. F., Clark, M. G. & Blackmore, P. F.) 241-256

Carbonic anhydrase, functional involvement of, in the transport of calcium ions by chick-embryo choriorallantoic membrane (Tuan, R. S. & Zrike, J.) 67-74

Carnitine, variation with age and sex of the concentrations of, in various rat tissues (Borum, P. R.) 677-681

Carotenoids, protective role of, in the photosensitivity of respiration by Neurospora crassa mitochondria (Ramadan-Talib, Z. & Prebble, J.) 767-775

Cartilage, articular, human, age-related changes in the composition and structure of proteoglycans from (Bayliss, M. T. & Ali, S. Y.) 683-693
Cells, adenocarcinoma R3230AC, mammary-gland, rat, sodium ion-dependent and -independent transport of 2-aminoisobutyrate into, and the effects of streptozotocin-induced diabetes in the host animal (Hisin, P. J. & Hilf, R.) 205–215

Cells, ascites, Krebs II, characterization of the acidic ribosomal phosphoprotein L, from, and its relationship to Escherichia coli ribosomal proteins L7 and L12 (Leader, D. P. & Coia, A. A.) 569–572

Cells, hepatoma, rat, cultured, effect of glutamine on the degradation of glutamine synthetase in, derived from Morris hepatoma 7288C (Crook, R. B. & Tomkins, G. M.) 47–52

Cells, hepatoma, rat, cultured, extensive conjugation of metabolites of 3,4-dihydroxyphenylalanine in, and human skin fibroblasts (Crooks, P. A., Breakefield, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187–196

Cells, kidney (BHK-21/C13), baby-hamster, onset of the degradation of ribosomes during cessation of growth in (Melvin, W. T. & Keir, H. M.) 933–941


Cells, neuroblastoma, mouse, cultured, regulation of the biosynthesis of guanosine 3':5'-cyclic monophosphate in (Bartfai, I., Breakefield, X. O. & Greengard, P.) 119–127

Cells, neuroblastoma, mouse, method for the measurement of relative changes in the concentration of guanosine 3':5'-cyclic monophosphate in, on muscarinic cholinergic stimulation (Strange, P. G.) 583–590

Cells, neuroblastoma, N2a, mouse, growth and the metabolism of plasma-membrane fucosylated glycoproteins in (Milenkovic, A. G., Rachmeler, M. & Johnson, T. C.) 695–704

Cells, see also Fibroblasts

Cerebral cortex, rat, female, metabolism of high-molecular-weight ribonucleic acid in, and hypothalamus during development (Hall, C. & Lim, L.) 511–521

Chick, chick embryo, effects of oestrogens on the activity of ornithine decarboxylase and the concentrations of polyamines in differentiating Müllerian ducts and other organs of (Teng, C. S. & Teng, C. T.) 143–149

Chick, chick embryo, functional involvement of carbonic anhydrase in the transport of calcium ions by chorioallantoic membrane from (Tuan, R. S. & Zrike, J.) 67–74

Chick, metabolism of 1α-hydroxycholecalciferol in (Edelstein, S., Noff, D., Freeman, D., Sheves, M. & Mazur, Y.) 111–117

Chick, turnover of protein in skeletal muscle of, during growth (Maruyama, K., Sunde, M. L. & Swick, R. W.) 573–582

Chicken, changes in the rates of biosynthesis and degradation of protein in skeletal muscle of, during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P. & Millward, D. J.) 407–417

Chicken, content and turnover of collagen in skeletal muscle and heart muscle of, during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 419–427

Chicken, isolation of a high-molecular-weight high-mobility-group-type non-histone protein from oviduct from (Teng, C. S., Gallagher, K. & Teng, C. T.) 1003–1006

Chicken, rates of biosynthesis of protein in skeletal muscle, heart muscle and smooth muscle of (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 393–401

Chicken, utilization of methylmalonate for the biosynthesis of branched-chain fatty acids by preparations of liver from (Scaife, J. R., Wahle, K. W. J. & Garton, G. A.) 799–804

Chlorate, characterization of a mutant of Escherichia coli K12 that is sensitive to, when grown aerobically (Giordano, G., Grillet, L., Rossel, R., Dou, J. H., Azoulay, E. & Haddock, B. A.) 553–561

Chlorella fusca var. vacuolata, effect of acetic acid on the rate of biosynthesis of isocitrate lyase in (Dunham, S. M. & Thurston, C. F.) 179–185

[7-3H]Cholecalciferol, 1α-hydroxy-, synthesis of, and its metabolism in the chick (Edelstein, S., Noff, D., Freeman, D., Sheves, M. & Mazur, Y.) 111–117

Cholera toxin, effects of guanosine [γδ-imido]triphosphate and, on the affinity of β-adrenergic receptors of toad erythrocyte membranes (Fischer, J. & Sharp, G. W. G.) 505–510

Choline kinase, evidence from essential-fatty acid-deficient animals for a regulatory role of, in the biosynthesis of phosphatidylcholine in rat liver (Infante, J. P. & Kinsella, J. E.) 631–633

Cholinergic agonists, dependence on calcium ions of the inhibition by a-adrenergic agonists and, of the biosynthesis of protein in rat parotid-gland slices (Kanagasuntheram, P. & Lim, S. C.) 23–29

Cholergic stimulation, muscarinic, method for the measurement of relative changes in the concentration of guanosine 3':5'-cyclic monophosphate in mouse neuroblastoma cells on (Strange, P. G.) 583–590

Chorioallantoic membrane, chick-embryo, functional involvement of carbonic anhydrase in the transport of calcium ions by (Tuan, R. S. & Zrike, J.) 67–74

Chioronic gonadotropin, see Gonadotropin, chorionic

Chromatin, effects of polyamines on the reactions catalysed by protein kinases associated with non-histone proteins and, of rat ventral-prostate-gland nuclei (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams- Ashman, H. G.) 739–750

Chromatin, hypothalamus, sheep, binding of oestradiol-17β-receptor protein complex and of progestosterone-receptor protein complex to, from male and female animals (Perry, B. N. & Lopez, A.) 873–883

Clearing-factor lipase, see Lipoprotein lipase

Coenzyme B12, (5'-deoxyadenosylcobalamin), concerted induction by ethanolamine and, of the formation of ethanolamine ammonia-lyase in Escherichia coli (Blackwell, C. M. & Turner, J. M.) 751–757

Collagen, biosynthesis and partial characterization of protein components similar to, of rat lens capsule (Heathcote, J. G., Sear, C. H. J. & Grant, M. E.) 283–294

Collagen, content and turnover of, in chicken skeletal muscle and heart muscle during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 419–427

1978
INDEX OF SUBJECTS

Coproprophyrinogen III oxidase, location of the activity of, in rat liver mitochondria (Grandchamp, B., Phung, N., & Nordmann, Y.) 97-102

Corticosterone, effects of angiotensin II and [1-sarcosine,8-ala(ne)jungiotensin II on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of, and other steroids by isolated rat adrenal-gland-cortex glomerulosa cells (Bing, R. F. & Schulster, D.) 39-45

Corticotropin, effect of the administration of, on the biosynthesis of a specific cytosolic protein in rat adrenal gland (Dazord, A., Gallet, D. & Saez, J. M.) 233-239

Corticotropin, effects of cortisol, thyroxine and, on the biosynthesis of glycerolipids and on the activity of phosphatidate phosphatase in rat liver (Glenny, H. P. & Brindley, D. N.) 777-784

Cortisol, effects of corticotropin, thyroxine and, on the biosynthesis of glycerolipids and on the activity of phosphatidate phosphatase in rat liver (Glenny, H. P. & Brindley, D. N.) 777-784

Cyclic adenosine 3':5'-monophosphate, see Adenosine 3':5'-cyclic monophosphate

Cyclic guanosine 3':5'-monophosphate, see Guanosine 3':5'-cyclic monophosphate

Cyclic nucleotide phosphodiesterases, properties of the calcium ion-dependent protein modulator of the activities of, of mouse epidermis (Murray, A. W. & Rogers, A.) 727-732

Cyclohexylphenyl 4-sulphate, biliary excretion of, in the guinea pig (Powell, G. M., Olavesen, A. H. & Curtis, C. G.) 443-448

Cysteine, participation of cystine and, in the inactivation of tyrosine aminotransferase in rat liver homogenates (Buckley, W. T. & Milligan, L. P.) 449-454

Cystine, participation of cystine and, in the inactivation of tyrosine aminotransferase in rat liver homogenates (Buckley, W. T. & Milligan, L. P.) 449-454

Cytosol, liver, rat, evidence that most of the membrane proteins of rat liver lysosomes are exposed to (Schneider, D. L., Burnside, J., Gorga, F. R. & Nettleton, C. J.) 75-82

Cytosol, adrenal-gland, rat, effect of the administration of corticotropin on the biosynthesis of a specific protein in (Dazord, A., Gallet, D. & Saez, J. M.) 233-239

Cytosol, uterus, human, interaction of progestins with the progesterone-receptor protein of (Kasid, A., Buckshee, K., Hingorani, V. & Laumas, K. R.) 531-539

Cytosol, uterus, rat, binding characteristics, content and distribution of oestrogen-receptor proteins in, and nuclei in relation to intra-uterine devices and the oestrous cycle (Myatt, L., Chaudhuri, G., Elder, M. G. & Lim, L.) 523-529

5'-Deoxyadenosylcobalamin (coenzyme B12), concerted induction by ethanolamine and, of the formation of ethanolamine ammonia-lyase in Escherichia coli (Blackwell, C. M. & Turner, J. M.) 751-757

Deoxyribonucleic acid, initiation of the transcription of, for the biosynthesis of ribonucleic acid in normal and phosphorylated rat liver nucleosomes (Ord, M. G. & Stocken, L. A.) 615-618

Development, adult, changes in the composition and structure of human articular-cartilage proteoglycans during (Bayliss, M. T. & Ali, S. Y.) 683-693

Development, metabolism of high-molecular-weight ribonucleic acid in hypothalamic and cortical regions of female rat brain during (Hall, C. & Lim, L.) 511-521

Development, postnatal, changes in the activities of acetocacetyl-coenzyme A decylase and 3-hydroxy-3-methylglutaryl-coenzyme A synthase during (Patel, T. B. & Clark, J. B.) 951-958


Development, postnatal, turnover of protein in chick skeletal muscle during (Maruyama, K., Sunde, M. L. & Swick, R. W.) 573-582

Development, postnatal, variation of the concentrations of caclium in various rat tissues with sex and during (Borum, P. R.) 677-681

Diabetes, alloxan-induced, effect of, on gluconeogenesis and ureogenesis in isolated rabbit liver cells (Zaleski, J. & Bryta, J.) 563-568

Diabetes, streptozotocin-induced, effect of, in the host animal on the sodium ion-dependent and -independent transport of 2-aminoisobutyrate into rat mammary-gland adenocarcinoma R3230AC cells (Hissin, P. J. & Hilf, R.) 205-215

Diamide, role of reduced glutathione in the reduction of, by isolated rat liver mitochondria (Jocelyn, P. C.) 649-664

11,11-Diamino-4,8-diazaanudacene (sym-nor-spermine), pathway for the biosynthesis of, and other polyamines in Caldararia acidophila (De Rosa, M., De Rosa, S., Gambacorta, A., Carenti-Farina, A. & Zappia, V.) 1-7

6-N2'-O-Dibutyryladenosine .3':5'-cyclic monophosphate, effects of, and other agents on the biosynthesis and release of amylase by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855-863

6-N2'-O-Dibutyryladenosine 3':5'-cyclic monophosphate, effects of glucagon and, on the transport of calcium ions by isolated rat liver mitochondria (Hughes, B. P. & Barratt, G. J.) 295-304

3,4-Dihydroxyphenylalanine (dopamine), extensive conjugation of metabolites of, in cultured human skin fibroblasts and rat hepatoma cells (Crooks, P. A., Breakfeld, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187-196

Diphosphoinositide, see Phosphatidyl-myoinositol 4-phosphate

Dipicolinate, role of, in the accumulation of calcium ions during sporulation of Bacillus megaterium KM (Hogarth, C. & Ellar, D. J.) 197-203

Dopamine (3,4-dihydroxyphenylalanine), extensive conjugation of metabolites of, in cultured human skin fibroblasts and rat hepatoma cells (Crooks, P. A., Breakfeld, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187-196

Electrons, cyanide-insensitive uptake of oxygen by mungbean mitochondria in the presence of ascorbate/NNN'tetramethyl-p-phenylenediamine mixture as donor of (Wilson, S. B.) 129-136

Vol. 176
Endocytosis, effect of inhibitors of, on the intracellular and extracellular activities of lysosomal enzymes of fibroblasts (von Figura, K. & Weber, E.) 943–950
Endoplasmic reticulum, see Reticulum, endoplasmic
Enzymes, lysosomal, effect of inhibitors of endocytosis on the intracellular and extracellular activities of, of fibroblasts (von Figura, K. & Weber, E.) 943–950
Epidermis, mouse, properties of the calcium ion-dependent protein modulator of the activities of cyclic nucleotide phosphodiesterases of (Murray, A. W. & Rogers, A.) 727–732
Epidermis, rat, inactivation of glycerol phosphate acyltransferase of adipose tissue of, catalysed by adenosine 3':5'-cyclic monophosphate-dependent protein kinase and its possible involvement in the regulation of the biosynthesis of triacylglycerols (Nimmo, H. G. & Houston, B.) 607–610
Epidermis, rat, modulation by thyroid hormones of the number of β-adrenergic receptors in membranes of adipocytes isolated from (Giudicelli, Y.) 1007–1010
Epidermis, rat, post-translational regulation of the activity of lipoprotein lipase in adipose tissue from (Ashby, P., Bennett, D. P., Spencer, I. M. & Robinson, D. S.) 865–872
Epinephrine, see Adrenaline
Erythrocyte 'ghosts', pigeon, sealed, use of obelin in a study of the inhibition by calcium ions of the formation of adenosine 3':5'-cyclic monophosphate in (Campbell, A. K. & Dormer, R. L.) 53–66
Erythrocytes, human, characterization of membrane proteins of, after cell fusion induced by oleoylglycerol in the presence of calcium ions (Quirk, S. J., Ahkong, Q. F., Botham, G. M., Vos, J. & Lucy, J. A.) 159–167
Erythrocytes, toad, effects of cholera toxin and guanosine 5'-[βy-imid]triphosphate on the affinity of the β-adrenergic receptors of membranes of (Fischer, J. & Sharp, G. W. G.) 505–510
Escherichia coli, characterization of the acidic ribosomal phosphoprotein L from Krebs II ascites cells and its relationship to ribosomal proteins L7 and L12 from (Leader, D. P. & Coia, A. A.) 569–572
Escherichia coli, concerted induction by ethanolamine and coenzyme B12 of the formation of ethanolamine ammonia-lyase in (Blackwell, C. M. & Turner, J. M.) 751–757
Escherichia coli K12, characterization of a mutant of, that is sensitive to chlorate when grown aerobically (Giordano, G., Grillet, L., Rosset, R., Dou, J. H., Azoulay, E. & Haddock, B. A.) 553–561
Escherichia coli M.R.E. 600, inhibition by pseudomonic acid of the activity of isoleucyl-transfer ribonucleic acid synthetase in (Hughes, J. & Mellows, G.) 305–318
Estradiol, see Oestradiol
Estrogens, see Oestrogens
Estrous cycle, see Oestrous cycle
Ethanol, mechanisms of the effects of the administration of glycerol and, on the activity of phosphatidate phosphatase in rat liver (Savolainen, M. J. & Hassinen, J.E.) 885–892
Ethanolamine ammonia-lyase, concerted induction by ethanolamine and coenzyme B12 of the formation of, in Escherichia coli (Blackwell, C. M. & Turner, J. M.) 751–757
Ethanolamine, concerted induction by coenzyme B12 and, of the formation of ethanolamine ammonia-lyase in Escherichia coli (Blackwell, C. M. & Turner, J. M.) 751–757
Eye, rat, biosynthesis and partial characterization of collagenous protein components of the lens capsule of (Heathcote, J. G., Sear, C. H. J. & Grant, M. E.) 283–294
Fat-cells, epididymal, rat, isolated, modulation by thyroid hormones of the numbers of β-adrenergic receptors in membranes of (Giudicelli, Y.) 1007–1010
Fatty acids, branched-chain, utilization of methylmalonate for the biosynthesis of, by preparations of chicken liver and sheep inguinal adipose tissue (Scaife, J. R., Wahlhe, K. W. J. & Garton, G. A.) 799–804
Fatty acids, essential, effect of dietary deficiency of, on the activity of choline kinase in rat liver (Infante, J. P. & Kinsella, J. E.) 631–633
Fibroblasts, skin, human, cultured, endocytosis of sulphated proteoglycans by (Prinz, R., Schermann, , J., Buddeke, E. & von Figura, K.) 671–676
Fibroblasts, skin, human, cultured, extensive conjugation of metabolites of 3,4-dihydroxyphenethyamine in, and rat hepatoma cells (Crooks, P. A., Breakefield, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187–196
Frog (Rana temporaria), chemical-modification approach to elucidation of the olfactory code exemplified by the inhibition by mersalyl of the response of the olfactory mucosa of, to pentyli acetate and related odourants (Meneve, A., Dodd, G. & Poynder, T. M.) 845–854
Gastrointestinal tract, rat, possible role of 5-hydroxytryptamine as mediator in the action of calcitonin on, and pancreas (Nakhsa, A. M. & Latif, A.) 339–342
Glomerulosa cells, adrenal-gland-cortex, rat, isolated, effects of angiotensin II and [1-sarcosine,8-alanine]-angiotensin II on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of steroids by (Bing, R. F. & Schulster, D.) 39–45
Glucagon, effect of the redox state of the cytosolic nicotinamid–adenine dinucleotide couple on the activity of adenosine 3':5'-cyclic monophosphate and its role in the control of the responsiveness of isolated rat hepatocytes to (Clark, M. G. & Jarrett, I. G.) 805–816
Glucagon, effects of 6-N,2'-O-dibutyrlyadenosine 3':5'-cyclic monophosphate and, on the transport of calcium ions by isolated rat liver mitochondria (Hughes, B. P. & Barratt, G. J.) 295–304
Glucagon, effects of phenylephrine, vasopressin and, on gluconeogenesis and on enzymes involved in the metabolism of glycogen in isolated rat hepatocytes (Hue, L., Fellu, J. E. & Hers, H.-G.) 791–797
INDEX OF SUBJECTS

Glucagon, stable enhancement of the retention of calcium ions by isolated rat liver mitochondria after the administration of, to the animal (Prpić, V., Spencer, T. L. & Bygrave, F. L.) 705-714

Gluconeogenesis, differential effects of tryptophan on, in isolated rat and guinea-pig hepatocytes (Smith, S. A., Elliott, K. R. F. & Pogson, C. I.) 817-825

Gluconeogenesis, effects of alloxan-induced diabetes on, and in isolated rabbit liver cells (Zaleski, J. & Bryla, J.) 563-568

Gluconeogenesis, effects of phenylephrine, vasopressin and glucagon on, and enzymes involved in the metabolism of glycogen in isolated rat hepatocytes (Hue, L., Fellu, J. E. & Hers, H.-G.) 791-797

Gluconeogenesis, evidence for the participation of aspartate aminotransferase in, in liver of suckling newborn rats (Ferré, P. & Williamson, D. H.) 335-338

Gluconeogenesis, stimulation by vasopressin, angiotensin and oxytocin of, in isolated rat hepatocytes (Whitton, P. D., Rodrigues, L. M. & Hems, D. A.) 893-898

Glucose, differential effects of tryptophan on the formation of, in isolated rat and guinea-pig hepatocytes (Smith, S. A., Elliott, K. R. F. & Pogson, C. I.) 817-825

Glucose, distribution of 14C in glucose 6-phosphate biosynthesized from [1-14C]ribose 5-phosphate by a rat liver extract and its relevance to the pentose phosphate pathway for the metabolism of (Williams, J. F., Clark, M. G. & Blackmore, P. F.) 241-256


Glucose, effects of alloxan-induced diabetes on the formation of urea and, in isolated rabbit liver cells (Zaleski, J. & Bryla, J.) 563-568

Glucose, effects of phenylephrine, vasopressin and glucagon on the formation of, and on enzymes involved in the metabolism of glycogen in isolated rat hepatocytes (Hue, L., Fellu, J. E. & Hers, H.-G.) 791-797

Glucose, evidence for new reaction sequences in the pentose phosphate pathway for the metabolism of, by a rat liver extract (Williams, J. F., Blackmore, P. F. & Clark, M. G.) 257-282

Glucose, evidence for the participation of aspartate aminotransferase in the formation of, in liver of suckling newborn rats (Ferré, P. & Williamson, D. H.) 335-338

Glucose, formation and characterization of lipid-linked oligosaccharides containing, of lactating rabbit mammary gland (Speake, B. K. & White, D. A.) 993-1000

Glucose, increased concentration of, in rat blood and other metabolic effects of administration of 3-aminopicolinate to the animals (MacDonald, M. J., Huang, M.-T. & Lardy, H. A.) 493-504

Glucose 6-phosphate, distribution of 14C in, biosynthesized from [1-14C]ribose 5-phosphate by a rat liver extract and its relevance to the pentose phosphate pathway for the metabolism of glucose (Williams, J. F., Clark, M. G. & Blackmore, P. F.) 241-256

Glucose, stimulation by vasopressin, angiotensin and oxytocin of the formation of, in isolated rat hepatocytes (Whitton, P. D., Rodrigues, L. M. & Hems, D. A.) 893-898

Glutaminase, effects of ammonium chloride and bicarbonate on the activity of, in isolated rat liver mitochondria (Joseph, S. K. & McGivan, J. D.) 837-844

Glutamine, characteristics of the transport of alanine, serine and, across the plasma membrane of isolated rat hepatocytes (Joseph, S. K., Bradford, N. M. & McGivan, J. D.) 827-836

Glutathione, evidence of, on the degradation of glutamine synthetase in cultured rat hepatoma cells derived from Morris hepatoma 7288C (Crook, R. B. & Tomkins, G. M.) 47-52

Glutamine synthetase, effect of glutamine on the degradation of, in cultured rat hepatoma cells derived from Morris hepatoma 7288C (Crook, R. B. & Tomkins, G. M.) 47-52

Glutathione, reduced role of, in the reduction of diamide by isolated rat liver mitochondria (Jociely, P. C.) 649-664

Glycerol, mechanisms of the effects of the administration of ethanol and, on the activity of phosphatidate phosphatase in rat liver (Savolainen, M. J. & Hassinen, I. E.) 885-892

Glycerol mono-oleate, characterization of human erythrocyte membrane proteins after cell fusion induced by, in the presence of calcium ions (Quirk, S. J., Ahkong, Q. F., Botham, G. M., Vos, J. & Lucy, J. A.) 159-167

Glycerol phosphate acyltransferase, adipose-tissue, epidermal, rat, inactivation of, catalysed by adenosine 3':5'-cyclic monophosphate-dependent protein kinase and its possible involvement in the regulation of the biosynthesis of triacylglycerols (Nimmo, H. G. & Houston, B.) 607-610

Glycerolipids, effects of cortisol, corticotropin and thyroxine on the biosynthesis of, and on the activity of phosphatidate phosphatase in rat liver (Glenny, H. P. & Brindley, D. N.) 777-784

Glycine, inhibition by pentachlorophenol and related uncouplers of oxidative phosphorylation of the transport of proline and, by Bacillus subtilis (Nicholas, R. A. & Ordal, G. W.) 639-647

Glycine max, see Bean, soya

Glycine, oxidation of, by kidney-bean root-nodule leghaemoglobin and associated catalytic reactions at the haem group (Lehtovaara, P.) 351-358

Glycogen, effects of phenylephrine, vasopressin and glucagon on gluconeogenesis and on enzymes involved in the metabolism of, in isolated rat hepatocytes (Hue, L., Fellu, J. E. & Hers, H.-G.) 791-797

Glycogen, turnover of, in foetal rat liver (Gilbert, M. & Bourbon, J.) 785-789

Glycoproteins, fucosylated, plasma-membrane, neuroblastoma-cell, N2a, mouse, growth and the metabolism of (Milcikovic, A. G., Rachmeler, M. & Johnson, T. C.) 695-704

Glycoproteins, role of rat liver non-parenchymal cells in the clearance from plasma of, with terminal mannose and N-acetylglucosamine residues (Schlesinger, P. H., Dobbier, T. W., Mandell, B. F., White, R., Deschryver, C., Rodman, J. S., Miller, M. J. & Stahl, P.) 103-109

Vol. 176
Gonadotropin, chorionic, human, induction by the β-subunit of, of the production of testosterone by mouse testis Leydig cells (Ramakrishnan, S., Das, C. & Talwar, G. P.) 599–602
Granulocytes, see Leucocytes, polymorphonuclear
Growth hormone, see Somatotropin
Growth, onset of the degradation of ribosomes during cessation of, in baby-hamster kidney BHK-21/C13 cells (Melvin, W. T. & Keir, H. M.) 933–941
Growth, turnover of protein in chick skeletal muscle during (Maruyama, K., Sunde, M. L. & Swick, R. W.) 573–582
Guanosine 3′:5′-cyclic monophosphate, method for the measurement of relative changes in the concentration of, in mouse neuroblastoma cells on muscarinic cholinergic stimulation (Strange, P. G.) 583–590
Guanosine 3′:5′-cyclic monophosphate, regulation of the biosynthesis of, in cultured mouse neuroblastoma cells (Barrfai, T., Breakefield, X. O. & Greengard, P.) 119–127
Guanosine [β-imido]triphosphate, effects of cholera toxin and, on the affinity of β-adrenergic receptors of toad erythrocyte membranes (Fischer, J. & Sharp, G. W. G.) 505–510
Haem group, oxidation of glycine by kidney-bean root-nodule leghaemoglobin and associated catalytic reactions at (Lehtovaara, P.) 351–358
Haem, kinetic evidence for the formation of a haem-oxygen complex during the degradation of, in vitro (Brown, S. B. & Thomas, S. E.) 327–330
Heart muscle, chicken, content and turnover of collagen in, and skeletal muscle during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 419–427
Heart muscle, chicken, rates of biosynthesis of protein in, and skeletal muscle and smooth muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 393–401
Heart muscle, role of phosphoenolpyruvate carboxykinase in the metabolism of amino acids in skeletal muscle and, of various animal species (Newsom, E. A. & Williams, T.) 623–626
Heart, ox, thermodynamic analysis of the interaction between the mitochondrial coupling adenosine triphosphatase from, and its naturally occurring inhibitor protein (Gomez-Fernandez, J. C. & Harris, D. A.) 967–975
Heart, rat, anion/calcium ion ratios and production of protons during the uptake of calcium ions by mitochondria from, and liver (Harris, E. J.) 983–991
Heart, rat, perfused, steady-state, systematic variations in the concentrations of purine nucleotides in (Bates, D. J., Perrett, D. & Mowbray, J.) 485–493
Heart, rat, role of calcium ions in the regulation of the activity of mitochondrial nicotinamide–adenine dinucleotide-linked isocitrate dehydrogenase from, and other tissues (Denton, R. M., Richards, D. A. & Chin, J. G.) 899–906
Heart, rat, variation with age and sex of the concentrations of carotinide in, and other tissues (Borum, P. R.) 677–681
Hen, see Chicken
Hepatocytes, rabbit, isolated, effects of alloxan-induced diabetes on gluconeogenesis and ureogenesis in (Zaleski, J. & Bryla, J.) 563–568
Hepatocytes, rat and guinea-pig, isolated, differential effects of tryptophan on gluconeogenesis in (Smith, S. A., Elliott, K. R. F. & Pogson, C. I.) 817–825
Hepatocytes, rat, evidence for a reciprocal relationship between lipogenesis and ketogenesis in, from fed virgin and lactating animals (Benito, M. & Williamson, D. H.) 331–334
Hepatocytes, rat, isolated, characteristics of the transport of alanine, serine and glutamine across the plasma membrane of (Joseph, S. K., Bradford, N. M. & McGivan, J. D.) 827–836
Hepatocytes, rat, isolated, effect of the redox state of the cytosolic nicotinamide–adenine dinucleotide couple on the activity of adenosine 3′:5′-cyclic monophosphate phosphodiesterase and its role in the control of the responsiveness of, to glucagon (Clark, M. G. & Jarrett, I. G.) 805–816
Hepatocytes, rat, isolated, effects of phenylephrine, vasopressin and glucagon on gluconeogenesis and on enzymes involved in the metabolism of glycogen in (Hue, L., Fellu, J. E. & Hers, H.-G.) 791–797
Hepatocytes, rat, isolated, stimulation by vasopressin, angiotensin and oxytocin of gluconeogenesis in (Whiton, P. D., Rodrigues, L. M. & Hems, D. A.) 893–898
Hepatoma cells, rat, cultured, effect of glutamine on the degradation of glutamine synthetase in, derived from Morris hepatoma 7288C (Crook, R. B. & Tomkins, G. M.) 47–52
Hepatoma cells, rat, cultured, extensive conjugation of metabolites of 3,4-dihydroxyphenylalanine in, and human skin fibroblasts (Crooks, P. A., Breakefield, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187–196
Histidine, accelerated degradation of protein formed in rat and rabbit reticulocytes under conditions of depletion of, and other individual amino acids (Chandler, C. S. & Ballard, F. J.) 151–158
Hydrocortisone, see Cortisol
Hydrogen ions, anion/calcium ion ratios and production of, during the uptake of calcium ions by rat heart and liver mitochondria (Harris, E. J.) 983–991
3-Hydroxybutyrate, utilization of, for lipogenesis in lactating rat mammary gland in vivo (Robinson, A. M. & Williamson, D. H.) 635–638
1α-Hydroxy[7,3H]Cholecalciferol, synthesis of, and its metabolism in the chick (Edelstein, S., Noff, D., Freeman, D., Sheves, M. & Mazur, Y.) 111–117
3-Hydroxy-3-methylglutaryl-coenzyme A synthase, changes in the activities of acetocacyl-coenzyme A decylase and, in rat brain during postnatal development (Patel, T. B. & Clark, J. B.) 951–958
INDEX OF SUBJECTS

5-Hydroxytryptamine, possible role of, as mediator in the action of calcitonin on rat gastrointestinal tract and pancreas (Nakha, A. M. & Latif, A.) 339–342

Hyperglycaemia, induction of, and other metabolic effects of administration of 3-aminopicolinate to the rat (MacDonald, M. J., Huang, M.-T. & Lardy, H. A.) 495–504

Hypothalamus, rat, female, metabolism of high-molecular-weight ribonucleic acid in, and cerebral cortex development (Hall, C. & Lim, L.) 511–521

Hypothalamus, sheep, binding of oestradiol-17β-receptor protein complex and of progesterone-receptor protein complex to chromatin from, from male and female animals (Perry, B. N. & Lopez, A.) 873–883

Inorganic sulphate, see Sulphate, inorganic


Insulin, effects of, and other agents on the biosynthesis and release of amylase by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855–863


Insulin, opposite effects of starvation on the oxidation of adenosine and on adenosine-induced release of, by isolated mouse islets of Langerhans (Andersson, A.) 619–621

Insulin, stimulation by pyruvate and lactate of the biosynthesis of proinsulin and the release of, by isolated rat islets of Langerhans (Jain, K., Asina, S. & Logothetopoulos, J.) 31–37

Intestine, small, rat, possible role of 5-hydroxytryptamine as mediator in the action of calcitonin on, and stomach and pancreas (Nakha, A. M. & Latif, A.) 339–342

Islets of Langerhans, pancreatic, mouse, isolated, opposite effects of starvation on the oxidation of adenosine and on adenosine-induced release of insulin by (Andersson, A.) 619–621


Islets of Langerhans, pancreatic, rat, isolated, stimulation by pyruvate and lactate of the biosynthesis of proinsulin and the release of insulin by (Jain, K., Asina, S. & Logothetopoulos, J.) 31–37

Isocitrate dehydrogenase, nicotinamide-adenine dinucleotide-linked, role of calcium ions in the regulation of the activity of, in mitochondria from rat heart and other tissues (Denton, R. M., Richards, D. A. & Chin, J. G.) 899–906

Isocitrate lyase, effect of acerate on the rate of biosynthesis of, in Chlorella fusca var. vacuolata (Dunham, S. M. & Thurston, C. F.) 179–185

Isocitryl-transfer ribonucleic acid synthetase, inhibition by pseudomonic acid of the activity of, in Escherichia coli M.R.E. 600 (Hughes, J. & Mellows, G.) 305–318

Isoprotorenol, effects of, and other agents on the biosynthesis and release of amylase by rat parotid gland (McPherson, M. A. & Hales, C. N.) 855–863

Ketogenesis, evidence for a reciprocal relationship between lipogenesis and, in hepatocytes from fed virgin and lactating rats (Benito, M. & Williamson, D. H.) 331–334


Ketone bodies, regulation of the formation of, in the rat during postnatal development (Ferré, P., Pégourier, J.-P., Williamson, D. H. & Girard, J. R.) 759–765

Kidney bean, see Bean, kidney

Kidney cells (BHK-21/C13), baby-hamster, onset of the degradation of ribosomes during cessation of growth in (Melvin, W. T. & Keir, H. M.) 933–941

Kidney cortex, dog, interconversion of renin and high-molecular-weight renin in (Funakawa, S., Funae, Y. & Yamamoto, K.) 977–981

Kreb II ascites cells, characterization of the acidic ribosomal phosphoprotein L, from, and its relationship to Escherichia coli ribosomal proteins L7 and L12 (Leader, D. P. & Coia, A. A.) 569–572

Lactate, stimulation by pyruvate and, of the biosynthesis of proinsulin and the release of insulin by isolated rat islets of Langerhans (Jain, K., Asina, S. & Logothetopoulos, J.) 31–37

Lactation, characterization of lipid-linked glucose-containing oligosaccharides formed in rabbit mammary gland during (Speake, B. K. & White, D. A.) 993–1000

Lactation, evidence for a reciprocal relationship between lipogenesis and ketogenesis in hepatocytes from fed virgin rats and from fed rats during (Benito, M. & Williamson, D. H.) 331–334


Lecithin, see Phosphatidylcholine

Leghaemoglobin, root-nodule, kidney-bean, oxidation of glycine by, and associated catabolic reactions at the haem group (Lehtovaara, P.) 351–358

Leghaemoglobinins, root-nodule, leguminous-plant, formation of isomers of biliverdin during the degradation of, from various species (Lehtovaara, P. & Perttilä, U.) 359–364

Lens capsule, rat, biosynthesis and partial characterization of collagenous protein components of (Heathcote, J. G., Sear, C. H. J. & Grant, M. E.) 283–294

Leucine, effect of the administration of corticotropin on the incorporation of, into a specific cytosolic protein in rat adrenal gland (Dazord, A., Gallet, D. & Saez, J. M.) 233–239

Leucocytes, mononuclear, peritoneal, mouse, cultured, enhancement by double-stranded polyribonucleotides of the production by, of differentiation-stimulating factor(s) for mouse myeloid leukaemic cells (Tomida, M., Takenaga, K., Yamamoto, Y. & Hozumi, M.) 665–669

Vol. 176
INDEX OF SUBJECTS

Leucocytes, mononuclear, peritoneal, mouse, regulation of the biosynthesis of prostaglandins and of the selective release of lysosomal hydrolyses by (Bonney, R. J., Wightman, P. D., Davies, P., Sadowski, S. J., Kuehl, F. A., Jr. & Humes, J. L.) 433–442


Leukaemic cells, myeloid, mouse, enhancement by double-stranded polyribonucleotides of the production by cultured mouse peritoneal mononuclear leucocytes of differentiation-stimulating factors for (Tomida, M., Takenaga, K., Yamamoto, Y. & Hozumi, M.) 665–669

Leydig cells, testis, Light, plasma, very-low-density, stimulation by Lipogenesis, evidence for (Lipogenesis, evidence for a reciprocal relationship between ketogenesis and, in hepatocytes from fed virgin and lactating rats (Benito, M. & Williamson, D. H.) 331–334

Liver cells, rat, isolated, effect of the redox state of the cytosolic nicotinamide-adenine dinucleotide couple on the activity of adenosine 3'-5'-cyclic monophosphate phosphodiesterase and its role in the control of the responsiveness of, to glucagon (Clark, M. G. & Jarrett, I. G.) 805–816

Liver cells, rat, isolated, effects of phenylephrine, vasopressin and glucagon on gluconeogenesis and on enzymes involved in the metabolism of glycogen in (Hue, L., Feliu, J. E. & Hers, H.-G.) 791–797


Liver cells, rat, isolated, stimulation by vasopressin, angiotensin and oxytocin on gluconeogenesis in (Whitton, P. D., Rodrigues, L. M. & Hems, D. A.) 893–898

Liver, chicken, utilization of methylmalonate for the biosynthesis of branched-chain fatty acids by preparations of (Scaife, J. R., Wahle, K. W. J. & Garton, G. A.) 799–804

Liver, rat, anion/calcium ion uptake and production of protons during the uptake of calcium ions by mitochondria from, and heart (Harris, E. J.) 983–991

Liver, rat, choice of precursors for the measurement of the turnover of proteins by a double-isotope method and its application to the study of mitochondrial proteins of (Burgess, R. J., Walker, J. H. & Mayer, R. J.) 919–926

Liver, rat, distribution of 14C in glucose 6-phosphate biosynthesized from [1-14C]ribose 5-phosphate by an extract from, and its relevance to the pentose phosphate pathway for the metabolism of glucose (Williams, J. F., Clark, M. G. & Blackmore, P. F.) 241–256

Liver, rat, effects of ammonium chloride and bicarbonate on the activity of glutaminase in mitochondria isolated from (Joseph, S. K. & McGivan, J. D.) 837–844

Liver, rat, effects of cortisol, corticotropin and thyroxine on the biosynthesis of glycero lipids and on the activity of phosphatidate phosphohydroxase in (Glenny, H. P. & Brindley, D. N.) 777–784

Liver, rat, effects of glucagon and 6-N,N'-O-dibutyryl-adenosine 3':5'-cyclic monophosphate on the transport of calcium ions by mitochondria isolated from (Hughes, B. P. & Barritt, G. J.) 295–304

Liver, rat, evidence for new reaction sequences in the pentose phosphate pathway for the metabolism of glucose by an extract of (Williams, J. F., Blackmore, P. F. & Clark, M. G.) 257–282

Liver, rat, evidence for the participation of aspartate aminotransferase in the formation of glucose in, of suckling newborn animals (Ferré, P. & Williamson, D. H.) 335–338

Liver, rat, evidence for the presence of a subpopulation of membrane-bound ribosomes from, that are detached in vitro by carcinogens and by centrifugation (Palmer, D. N., Rabin, B. R. & Williams, D. J.) 9–14

Liver, rat, evidence from essential-fatty acid-deficient animals for a regulatory role of choline kinase in the biosynthesis of phosphatidylcholine in (Infante, J. P. & Kinsella, J. E.) 631–633

Liver, rat, evidence that most of the membrane proteins of lysosomes of, are exposed to the cytoplasm (Schneider, D. L., Burnside, J., Gorga, F. R. & Nettleton, C. J.) 75–82

1978
Liver, rat, foetal, turnover of glycogen in (Gilbert, M. & Bourdon, J.) 785-789
Liver, rat, hydrolysis of phosphatidylinositol by lysosomal enzymes of, and brain (Irvine, R. F., Hemington, N. & Dawson, R. M. C.) 475-484
Liver, rat, influence of respiratory state on the activity of monooamine oxidase in mitochondria isolated from (Smith, G. S. & Reid, R. A.) 1011-1014
Liver, rat, initiation of the transcription of deoxyribonucleic acid for the biosynthesis of ribonucleic acid in normal and phosphorylated nucleosomes from (Ord, M. G. & Stocken, L. A.) 615-618
Liver, rat, location of the activity of coproporphyrinogen III oxidase in mitochondria from (Grandchamp, B., Phung, N. & Nordmann, Y.) 97-102
Liver, rat, mechanisms of the effects of the administration of ethanol and glycerol on the activity of phosphatidate phosphatase in (Savolainen, M. J. & Hassinen, I. E.) 885-892
Liver, rat, participation of cysteine and cystine in the inactivation of tyrosine aminotransferase in homogenates of (Buckley, W. T. & Milligan, L. P.) 449-454
Liver, rat, perfused, isolated, activity of phenol sulphotransferase and the metabolism of inorganic sulphate in (Mulder, G. J. & Keulemans, K.) 959-965
Liver, rat, perfused, stimulation by vasopressin of the activity of pyruvate dehydrogenase in (Hems, D. A., McCormack, J. G. & Denton, R. M.) 627-629
Liver, rat, regulation of the extramitochondrial concentration of calcium ions by mitochondria from (Nicholls, D. G.) 463-474
Liver, rat, relative rates of turnover of subunits of mitochondrial proteins of (Walker, J. H., Burgess, R. J. & Mayer, R. J.) 927-932
Liver, rat, role of non-parenchymal cells of, in the clearance from plasma of glycoproteins with terminal mannose and N-acetylgalactosamine residues (Schlesinger, P. H., Doebber, T. W., Mandell, B. F., White, R., DeSchryver, C., Rodman, J. S., Miller, M. J. & Stahl, P.) 103-109
Liver, rat, role of reduced glutathione in the reduction of diamide by mitochondria isolated from (Jocelyn, P. C.) 649-664
Liver, rat, stable enhancement of the retention of calcium ions by mitochondria isolated from, after the administration of glucagon to the animal (Prpić, V., Spencer, T. L. & Bygrave, F. L.) 705-714
Liver, rat, use of rat liver nucleoplasm for the characterization of the biosynthesis of heterogeneous nuclear ribonucleic acid in vivo (Beebee, T. J. C.) 715-725
Liver, rat, variation with age and sex of the concentrations of carbinol in, and other tissues (Borum, P. R.) 677-681
Lung, rabbit, accumulation and turnover of pulmonary surfactant in (Desai, R., Tetley, T. D., Curtis, C. G., Powell, G. M. & Richards, R. J.) 455-462
Lysosomes, fibroblast, effect of inhibitors of endocytosis on the intracellular and extracellular activities of enzymes of (von Figura, K. & Weber, E.) 943-950
Lysosomes, liver and brain, rat, hydrolysis of phosphatidylinositol by enzymes of (Irvine, R. F., Hemington, N. & Dawson, R. M. C.) 475-484
Lysosomes, liver, rat, evidence that most of the membrane proteins of, are exposed to the cytoplasm (Schneider, D. L., Burnside, J., Gorga, F. R. & Nettleton, C. J.) 75-82
Macrophages, peritoneal, mouse, regulation of the biosynthesis of prostaglandins and of the selective release of lysosomal hydrolases by (Bonney, R. J., Wightman, P. D., Davies, P., Sadowski, S. J., Kuehl, F. A., Jr. & Humes, J. L.) 433-442
Macrophages, see also Leucocytes, mononuclear
Malondialdehyde, evidence that the formation of, in human platelets is catalysed by thromboxane synthase (McMillan, R. M., MacIntyre, D. E., Booth, A. & Gordon, J. L.) 595-598
Mammary-gland adenocarcinoma R3230AC cells, rat, sodium ion-dependent and -independent transport of 2-aminoisobutyrate into, and the effects of streptozotocin-induced diabetes in the host animal (Hissin, P. J. & Hilf, R.) 205-215
Mammary gland, rabbit, lactating, formation and characterization of lipid-linked glucose-containing oligosaccharides of (Speake, B. K. & White, D. A.) 993-1000
Mammary gland, rat, lactating, evidence for a role of insulin in the regulation of lipogenesis in (Robinson, A. M., Girard, J. R. & Williamson, D. H.) 343-346
Membranous plasma, rat, lactating, utilization of 3-hydroxybutyrate for lipogenesis in, in vivo (Robinson, A. M. & Williamson, D. H.) 635-638
Mannose residues, terminal, role of rat liver non-parenchymal cells in the clearance from plasma of glycoproteins with, and N-acetylgalactosamine residues (Schlesinger, P. H., Doebber, T. W., Mandell, B. F., White, R., DeSchryver, C., Rodman, J. S., Miller, M. J. & Stahl, P.) 103-109
Membrane, chorioallantoic, chick-embryo, functional involvement of carbonic anhydrase in the transport of calcium ions by (Tuan, R. S. & Zrike, J.) 67-74
Membrane, microsomal, liver, rat, evidence for the presence of a subpopulation of ribosomes bound to, that are detached in vitro by carcinogens and by centrifugation (Palmer, D. N., Rabin, B. R. & Williams, D. J.) 9-14
Membrane, plasma, characteristics of the transport of alanine, serine and glutamine across, of isolated rat hepatocytes (Joseph, S. K., Bradford, N. M. & McGivan, J. D.) 827-836
Membrane, plasma, neuroblastoma-cell, N2a, mouse, growth and the metabolism of fucosylated glycoproteins of (Milenkov, A. G., Rachmeler, M. & Johnson, T. C.) 695-704
Membrane proteins, erythrocyte, human, characterization of, after cell fusion induced by oleoylgllycerol in the presence of calcium ions (Quirk, S. J., Ahkong, Q. F., Botham, G. M., Vos, J. & Lucy, J. A.) 159-167
Membrane proteins, lysosomal, liver, rat, evidence that most of, are exposed to the cytoplasm (Schneider, D. L., Burnside, J., Gorga, F. R. & Nettleton, C. J.) 75-82
Membranes, adipocyte, epididymal, rat, modulation by thyroid hormones of the numbers of ß-adrenergic receptors in (Giudicelli, Y.) 1007-1010

Vol. 176

INDEX OF SUBJECTS 1031
Membranes, erythrocyte, toad, effects of cholera toxin and guanosine [βγ-imido]triphosphate on the affinity of the β-adrenergic receptors of (Fischer, J. & Sharp, G. W. G.) 505–510

Mersalyl, chemical-modification approach to elucidation of the olfactory code exemplified by the inhibition by, of the response of frog olfactory mucosa to pentylenetetra acetate and related odorants (Meneve, A., Dodd, G. & Poynder, T. M.) 845–854

3-Methoxytyramine 4(3)-O-glucuronide, identification of, as a major metabolite of 3,4-dihydroxyphenethylamine in cultured rat hepatoma cells (Crooks, P. A., Breakfield, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187–196

3-Methoxytyramine 4-O-sulphate, identification of, as a major metabolite of 3,4-dihydroxyphenethylamine in cultured human skin fibroblasts (Crooks, P. A., Breakfield, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187–196

Methylmalonate, utilization fraction, of microsomal and mitochondrial systems, heart and liver, rat, isolated, effects of glucagon (Nicholls, D. G.) 463–474

Mitochondria, liver, rat, isolated, role of reduced glutathione in the reduction of diamide by (Jocelyn, P. C.) 649–664

Mitochondria, liver, rat, location of the activity of coproporphyrinogen III oxidase in (Grandchamp, B., Phung, N. & Nordmann, Y.) 97–102

Mitochondria, liver, rat, regulation of the extramitochondrial concentration of calcium ions by (Nicholls, D. G.) 463–474

Mitochondria, liver, rat, relative rates of turnover of subunits of proteins of (Walker, J. H., Burgess, R. J. & Mayer, R. J.) 927–932

Mitochondria, mung-bean, cyanide-insensitive uptake of oxygen by, in the presence of ascorbate/NAD/NAD’-tetramethyl-p-phenylenediamine mixture as electron donor (Wilson, S. B.) 129–136

Mitochondria, Neurospora crassa, protective role of carotenoids in the photosensitivity of respiration by (Ramadan-Talib, Z. & Prebble, J.) 767–775

Modecinc, inhibitory effect of, on the elongation of polypeptide chains during the biosynthesis of protein catalysed by brine-shrimp ribosomes (Montanaro, L., Sperti, S., Zamboni, M., Denaro, M., Testoni, G., Gasperi-Campani, A. & Sirpe, F.) 371–379

Monoamine oxidase, influence of respiratory state on the activity of, in isolated rat liver mitochondria (Smith, G. S. & Reid, R. A.) 1011–1014

Morris hepatoma 7288C, rat, effect of glutamine on the degradation of glutamine synthetase in cultured hepatoma cells derived from (Crook, R. B. & Tomkins, G. M.) 47–52

Müllerian ducts, chick-embryo, differentiating, effects of oestrogens on the activity of ornithine decarboxylase and the concentrations of polyamines in, and other organs (Teng, C. S. & Teng, C. T.) 143–149

Mung bean, see Bean, mung

Muscle, heart, chicken, content and turnover of collagen in, and skeletal muscle during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 419–427

Muscle, heart, chicken, rates of biosynthesis of protein in, and skeletal muscle and smooth muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 393–401

Muscle, heart, role of phosphoenolpyruvate carboxylase in the metabolism of amino acids in skeletal muscle and, of various animal species (Newsholme, E. A. & Williams, T.) 623–626

Muscle, skeletal, chick, turnover of protein in, during growth (Maruyama, K., Sunde, M. L. & Swick, R. W.) 573–582

Muscle, skeletal, chicken, changes in the rates of biosynthesis and degradation of protein in, during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P. & Millward, D. J.) 407–417

Muscle, skeletal, chicken, content and turnover of collagen in, and heart muscle during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 419–427

Muscle, skeletal, chicken, rates of biosynthesis of protein in, and heart muscle and smooth muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 393–401
<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>1033</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle, skeletal, mouse, composition and metabolism of phospholipids in, and nervous tissue of normal animals and of animals with muscular dystrophy (Kwok, C. T. &amp; Austin, L.)</td>
<td>15–22</td>
</tr>
<tr>
<td>Muscle, skeletal, mouse, purification and properties of a factor inhibitory towards the biosynthesis of protein from, of normal animals and those with muscular dystrophy (Petryshyn, R. A. &amp; Nicholls, D. M.)</td>
<td>907–917</td>
</tr>
<tr>
<td>Muscle, skeletal, rat, active and immobilized, effects of starvation on the turnover of protein and the concentration of ribonucleic acid in (Goldspink, D. F.)</td>
<td>603–606</td>
</tr>
<tr>
<td>Muscle, skeletal, rat, effect of surgical trauma on the turnover of protein in (Hoover-Plow, J. L. &amp; Clifford, A. J.)</td>
<td>137–142</td>
</tr>
<tr>
<td>Muscle, skeletal, rat, variation with age and sex of the concentrations of carnitine in, and other tissues (Borum, P. R.)</td>
<td>677–681</td>
</tr>
<tr>
<td>Muscle, skeletal, role of phosphoenolpyruvate carboxykinase in the metabolism of amino acids in heart muscle and, of various animal species (Newsholme, E. A. &amp; Williams, T.)</td>
<td>623–626</td>
</tr>
<tr>
<td>Muscle, smooth, chicken, rates of biosynthesis of protein in, and skeletal muscle and heart muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. &amp; Millward, D. J.)</td>
<td>393–401</td>
</tr>
<tr>
<td>Muscular dystrophy, composition and metabolism of phospholipids in nervous tissue and skeletal muscle of normal mice and of mice with (Kwok, C. T. &amp; Austin, L.)</td>
<td>15–22</td>
</tr>
<tr>
<td>Muscular dystrophy, purification and properties of a factor inhibitory towards the biosynthesis of protein from skeletal muscle of normal mice and those with (Petryshyn, R. A. &amp; Nicholls, D. M.)</td>
<td>907–917</td>
</tr>
<tr>
<td>Myofibrils, skeletal-muscle, rat, effect of surgical trauma on the turnover of protein in, and sarcoplasm (Hoover-Plow, J. L. &amp; Clifford, A. J.)</td>
<td>137–142</td>
</tr>
<tr>
<td>Nervous tissue, mouse, composition and metabolism of phospholipids in, and skeletal muscle of normal animals and of animals with muscular dystrophy (Kwok, C. T. &amp; Austin, L.)</td>
<td>15–22</td>
</tr>
<tr>
<td>Neuroblastoma cells, mouse, cultured, regulation of the biosynthesis of guanosine 3':5'-cyclic monophosphate in (Bartfai, T., Breakefield, X. O. &amp; Greengard, P.)</td>
<td>119–127</td>
</tr>
<tr>
<td>Neuroblastoma cells, mouse, method for the measurement of relative changes in the concentration of guanosine 3':5'-cyclic monophosphate in, on muscarinic cholineretic stimulation (Strange, P. G.)</td>
<td>583–590</td>
</tr>
<tr>
<td>Neuroblastoma cells, N2a, mouse, growth and the metabolism of plasma-membrane fucosylated glycoproteins in (Milenkovic, A. G., Rachmeler, M. &amp; Johnson, T. C.)</td>
<td>695–704</td>
</tr>
<tr>
<td>Neospora crassa, protective role of carotenoids in the photosensitivity of respiration by mitochondria from (Ramadan-Talib, Z. &amp; Prebble, J.)</td>
<td>767–775</td>
</tr>
<tr>
<td>Nicotinamide–adenine dinucleotide couple, cytosolic, effect of the redox state of, on the activity of adenosine 3':5'-cyclic monophosphate phosphodiesterase and its role in the control of the responsiveness of isolated rat hepatocytes to glucagon (Clark, M. G. &amp; Jarrett, I. G.)</td>
<td>805–816</td>
</tr>
<tr>
<td>Non-histone protein, see Protein, non-histone sym-Nor-spermine (11,11-diamino-4,8-diazaundecane), pathway for the biosynthesis of, and other polyamines in Caldariella acidophila (De Rosa, M., De Rosa, S., Gambacorta, A., Carteni-Farina, M. &amp; Zappia, V.)</td>
<td>1–7</td>
</tr>
<tr>
<td>Nuclear ribonucleic acid, see Ribonucleic acid, nuclear</td>
<td></td>
</tr>
<tr>
<td>Nuclei, hypothalamus, sheep, binding of oestradiol-17β– receptor protein complex and of progesterone-receptor protein complex to chromatin from, from male and female animals (Perry, B. N. &amp; Lopez, A.)</td>
<td>873–883</td>
</tr>
<tr>
<td>Nuclei, uterus, rat, binding characteristics, content and distribution of oestrogen-receptor proteins in, and cytosol in relation to intra-uterine devices and the oestrous cycle (Myatt, L., Chaudhuri, G., Elder, M. G. &amp; Lim, L.)</td>
<td>523–529</td>
</tr>
<tr>
<td>Nucleoplasm, liver, rat, use of, for the characterization of the biosynthesis of heterogeneous nuclear ribonucleic acid in rat liver in vivo (Beebee, T. J. C.)</td>
<td>715–725</td>
</tr>
<tr>
<td>Nucleosomes, liver, rat, normal and phosphorylated, initiation of the transcription of deoxyribonucleic acid for the biosynthesis of ribonucleic acid in (Ord, M. G. &amp; Stocken, L. A.)</td>
<td>615–618</td>
</tr>
<tr>
<td>Obelin, use of, in a study of the inhibition by calcium ions of the formation of adenosine 3':5'-cyclic monophosphate in sealed pigeon erythrocyte 'ghosts' (Campbell, A. K. &amp; Dormer, R. L.)</td>
<td>53–66</td>
</tr>
<tr>
<td>Oestradiol-17β, effects of, on the activity of ornithine decarboxylase and the concentrations of polyamines in differentiating chick-embryo Müllerian ducts and other organs (Teng, C. S. &amp; Teng, C. T.)</td>
<td>143–149</td>
</tr>
<tr>
<td>Oestradiol-17β–receptor protein complex, binding of progesterone-receptor protein complex and, to hypothalamus chromatin from male and female sheep (Perry, B. N. &amp; Lopez, A.)</td>
<td>873–883</td>
</tr>
<tr>
<td>Oestrogen-receptor proteins, uterus, rat, binding characteristics, content and intracellular distribution of, in relation to intra-uterine devices and the oestrous cycle (Myatt, L., Chaudhuri, G., Elder, M. G. &amp; Lim, L.)</td>
<td>523–529</td>
</tr>
<tr>
<td>Oestrogens, effects of, on the activity of ornithine decarboxylase and the concentrations of polyamines in differentiating chick-embryo Müllerian ducts and other organs (Teng, C. S. &amp; Teng, C. T.)</td>
<td>143–149</td>
</tr>
</tbody>
</table>

Vol. 176
Oestrous cycle, binding characteristics, content and intracellular distribution of oestrogen-receptor proteins in rat uterus in relation to intra-uterine devices and (Myatt, L., Chaudhuri, G., Elder, M. G. & Lim, L.) 523–529

Oleoylglycerol, characterization of human erythrocyte membrane proteins after cell fusion induced by, in the presence of calcium ions (Quirk, S. J., Ahkong, Q. F., Botham, G. M., Vos, J. & Lucy, J. A.) 159–167

Olfactory code, chemical-modification approach to elucidation of, exemplified by the inhibition by mersaryl of the response of frog olfactory mucosa to pentyl acetate and related odorants (Menevse, A., Dodd, G. & Poynder, T. M.) 845–854

Olfactory mucosa, frog, chemical-modification approach to elucidation of the olfactory code exemplified by the inhibition by mersaryl of the response of, to pentyl acetate and related odorants (Menevse, A., Dodd, G. & Poynder, T. M.) 845–854

Oligosaccharides, glucose-containing, lipid-linked, formation and characterization of, of lactating rabbit mammary gland (Speake, B. K. & White, D. A.) 993–1000

Ornithine decarboxylase, effects of oestrogens on the activity of, and the concentrations of polyamines in differentiating chick-embryo Müllerian ducts and other organs (Teng, C. S. & Teng, C. T.) 143–149

Ovalbumin, digestion of, by human pepsins 1, 3 and 5 (Walker, V. & Taylor, W. H.) 429–432

Oviduct, chicken, isolation of a high-molecular-weight high-mobility-group-type non-histone protein from (Teng, C. S., Gallagher, K. & Teng, C. T.) 1003–1006

Oxidative phosphorylation, see Phosphorylation, oxidative

Oxygen, cyanide-insensitive uptake of, by mung-bean mitochondria in the presence of ascorbate/N3N7N3N7-tetramethyl-p-phenylenediamine mixture as electron donor (Wilson, S. B.) 129–136

Oxygen, kinetic evidence for the formation of a complex between haem and, during the degradation of haem in vitro (Brown, S. B. & Thomas, S. E.) 327–330

Oxytocin, stimulation by vasopressin, angiotensin and, of gluconeogenesis in isolated rat hepatocytes (Whiton, P. D., Rodrigues, L. M. & Hems, D. A.) 893–898

Pancreas, rat, stimulation by pyruvate and lactate of the biosynthesis of proinsulin and the release of insulin by islets of Langerhans isolated from (Jain, K., Asina, S. & Logothetopoulos, J.) 31–37

Parotid gland, rat, control of the biosynthesis and release of amylase by (McPherson, M. A. & Hales, C. N.) 855–863

Parotid gland, rat, dependence on calcium ions of the inhibition by α-adrenergic agonists and cholinergic agonists of the biosynthesis of protein in slices of (Kanegasukenheram, P. & Lim, S. C.) 23–29

Pep (Pisum sativum), formation of isomers of biliverdin during the degradation of leghaemoglobin from root nodules of, and other leguminous plants (Lehtovaara, P. & Perttila, U.) 359–364

Pentachlorophenol, inhibition by, and related uncouplers of oxidative phosphorylation of the transport of proline and glycine by Bacillus subtilis (Nicholas, R. A. & Ordai, G. W.) 639–647

Pentose phosphate pathway, distribution of 14C in glucose 6-phosphate biosynthesized from [1-14C]ribose 5-phosphatase by a rat liver extract and its relevance to, for the metabolism of glucose (Williams, J. F., Clark, M. G. & Blackmore, P. F.) 241–256

Pentose phosphate pathway, evidence for new reaction sequences in, for the metabolism of glucose by a rat liver extract (Williams, J. F., Blackmore, P. F. & Clark, M. G.) 257–282

Pentyl acetate, chemical-modification approach to elucidation of the olfactory code exemplified by the inhibition by mersaryl of the response of frog olfactory mucosa to, and related odorants (Menevse, A., Dodd, G. & Poynder, T. M.) 845–854

Pepsins 1, 3 and 5, human, digestion of ovalbumin by (Walker, V. & Taylor, W. H.) 429–432

Phaseolus aureus, see Bean, mung

Phaseolus vulgaris, see Bean, kidney

Phenol sulphotransferase, activity of, and the metabolism of inorganic sulphate in isolated perfused rat liver (Mulder, G. J. & Keulemans, K.) 959–965

Phenylalanine, dependence on calcium ions of the inhibition by α-adrenergic agonists and cholinergic agonists of the incorporation of, into protein in rat parotid-gland slices (Kanegasukenheram, P. & Lim, S. C.) 23–29

Phenylephrine, effects of vasopressin, glucagon and, on gluconeogenesis and on enzymes involved in the metabolism of glycogen in isolated rat hepatocytes (Hue, L., Fellu, J. E. & Hers, H.-G.) 791–797

Phosphatidate phosphatase, effects of cortisol, corticotropin and thyroxine on the biosynthesis of glycerolipids and on the activity of, in rat liver (Glenny, H. P. & Brindley, D. N.) 777–784

Phosphatidate phosphatase, mechanisms of the effects of the administration of ethanol and glycerol on the activity of, in rat liver (Savolainen, M. J. & Hassinen, I. E.) 885–892

Phosphatidylcholine, concentration and metabolism of, and other phospholipids in nervous tissue and skeletal muscle of normal mice and of mice with muscular dystrophy (Kwok, C. T. & Austin, L.) 15–22
Phosphatidylcholine, evidence from essential-fatty acid-deficient animals for a regulatory role of choline kinase in the biosynthesis of, in rat liver (Infante, J. P. & Kinsella, J. E.) 631–633

Phosphatidylinositol, hydrolysis of, by lysosomal enzymes of rat liver and brain (Irvine, R. F., Hemington, N. & Dawson, R. M. C.) 475–484

Phosphatidyl-myoinositol 4,5-bisphosphate (triphasophoinositide), activation by calcium ions of the hydrolysis of phosphatidyl-myoinositol 4-phosphate (diphosphoinositoide) and, by guinea-pig brain synaptosomes (Griffin, H. D. & Hawthorne, J. N.) 541–552

Phosphatidyl-myoinositol 4-phosphate (diphosphoinositoide), activation by calcium ions of the hydrolysis of phosphatidyl-myoinositol 4,5-bisphosphate (triphasophoinositide) and, by guinea-pig brain synaptosomes (Griffin, H. D. & Hawthorne, J. N.) 541–552

Phosphodiesterases, properties of the calcium ion-dependent protein modulator of the activities of, of mouse epidermis (Murray, A. W. & Rogers, A.) 727–732

Phosphoenolpyruvate carboxykinase, role of, in the metabolism of amino acids in skeletal muscle and heart muscle of various animal species (Newsholme, E. A. & Williams, T.) 623–626

Phospholipase A, stimulation by, of the content of prostaglandin E and the biosynthesis of somatotropin in rat anterior pituitary gland (Betteridge, A. & Wallis, M.) 319–323

Phospholipids, composition and metabolism of, in nervous tissue and skeletal muscle of normal mice and of mice with muscular dystrophy (Kwok, C. T. & Austin, L.) 15–22

Phosphoprotein Lα, ribosomal, Krebs II-ascites-cells, characterization of, and its relationship to Escherichia coli ribosomal proteins L7 and L12 (Leader, D. P. & Coia, A. A.) 569–572


Phosphorylation, oxidative, inhibition by pentachlorophenol and related uncouplers of, of the transport of proline and glycine by Bacillus subtilis (Nicholas, R. A. & Ordal, G. W.) 639–647

Pigeon, use of obelin in a study of the inhibition by calcium ions of the formation of adenosine 3':5'-cyclic monophosphate in sealed erythrocyte 'ghosts' from (Campbell A. K. & Dormer, R. L.) 53–66

Pisum sativum, see Pea

Pituitary gland, anterior, rat, stimulation by phospholipase A of the content of prostaglandin E and the biosynthesis of somatotropin in (Betteridge, A. & Wallis, M.) 319–323

Plasma, rat, role of the liver non-parenchymal cells in the clearance from, of glycoproteins with terminal mannose and N-acetylglucosamine residues (Schlesinger, P. H., Doebrer, T. W., Mandell, B. F., White, R., DeSchryver, C., Rodman, J. S., Miller, M. J. & Stahl, P.) 103–109

Plasma, rat, variation with age and sex of the concentrations of carnitine in, and other tissues (Borum, P. R.) 677–681

Platelets, human, broken and intact, inhibition by adenosine analogues of the activity of adenylate cyclase in preparations of (Haslam, R. J., Davidson, M. M. L. & Desjardins, J. V.) 83–95

Platelets, human, evidence that the formation of malondialdehyde in, is catalysed by thromboxane synthase (McMillan, R. M., MacIntyre, D. E., Booth, A. & Gordon, J. L.) 595–598

Polyamines, effect of, on the reactions catalysed by protein kinases associated with rat ventral-prostate-gland chromatin and non-histone proteins (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams-Ashman, H. G.) 739–750

Polyamines, effects of, on the activity of ornithine decarboxylase and the concentrations of, in differentiating chick-embryo Müllerian ducts and other organs (Teng, C. S. & Teng, C. T.) 143–149

Polyamines, pathway for the biosynthesis of, in Calendula officinalis (De Rosa, M., De Rosa, S., Gambacorta, A., Carteri-Farina, M. & Zappia, V.) 1–7

Polymorphonuclear leucocytes, see Leucocytes, polymorphonuclear

Polypeptide chains, inhibitory effect of mecodecin on the elongation of, during the biosynthesis of protein catalysed by brine-shrimp ribosomes (Montanaro, L., Sperti, S., Zamboni, M., Denaro, M., Testoni, G., Gasperi-Campani, A. & Stirpe, F.) 371–379

Polyribonucleotides, double-stranded, enhancement by, of the production by cultured mouse peritoneal mononuclear leucocytes of differentiation-stimulating factor(s) for mouse myeloid leukaemic cells (Tomida, M., Takenaga, K., Yamamoto, Y. & Hozumi, M.) 665–669

Progesterone-receptor protein complex, binding of oestradiol-17β-receptor protein complex and, to hypothalamus chromatin from male and female sheep (Perry, B. N. & Lopez, A.) 573–883

Progesterone-receptor protein, cytosolic, uterus, human, interaction of progestins with (Kasid, A., Buckshee, K., Hingorani, V. & Laumas, K. R.) 531–539

Progesterone, specific 11α-hydroxylation of, by Aspergillus ochraceus TS (Samanta, T. B., Roy, N. & Chattopadhyay, S.) 593–594

Progesterins, interaction of, with the cytosolic progesterone-receptor protein of (Kasid, A., Buckshee, K., Hingorani, V. & Laumas, K. R.) 531–539

Proinsulin, stimulation by pyruvate and lactate of the biosynthesis of, and the release of insulin by isolated rat islets of Langerhans (Jain, K., Asina, S. & Logothetopoulos, J.) 31–37

Proline, inhibition by pentachlorophenol and related uncouplers of oxidative phosphorylation of the transport of glycine and, by Bacillus subtilis (Nicholas, R. A. & Ordal, G. W.) 639–647

Protease, metabolism of, in relation to the biosynthesis of branched-chain fatty acids by preparations of chicken liver and sheep inguinal adipose tissue (Scaife, J. R., Wahle, K. W. J. & Garton, G. A.) 799–804

Prostaglandin E, stimulation by phospholipase A of the content of, and the biosynthesis of somatotropin in rat anterior pituitary gland (Betteridge, A. & Wallis, M.) 319–323

Vol. 176

INDEX OF SUBJECTS

1035
Prostate gland, ventral, rat, effects of polyamines on the reactions catalysed by protein kinases associated with nuclear chromatin and non-histone proteins of (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams- Ashman, H. G.) 739–750
Protease,see Proteinase
Protein, accelerated degradation of, formed in rat and rabbit reticulocytes under conditions of depletion of individual amino acids (Chandler, C. S. & Ballard, F. J.) 151–158
Protein, adenosine triphosphatase-inhibitor, mitochondrial, heart, ox, thermodynamic analysis of the interaction between ox heart mitochondrial coupling adenosine triphosphatase and (Gomez-Fernandez, J. C. & Harris, D. A.) 967–975
Protein, analysis of errors in estimation of the rate of biosynthesis of, by constant infusion of a labelled amino acid into an animal (Garlick, P. J.) 402–405
Protein, changes in the rates of biosynthesis and degradation of, in chicken skeletal muscle during stretch-induced hypertrophy of skeletal muscle (Laurent, G. J., Sparrow, M. P. & Millward, D. J.) 407–417
Protein, cytosolic, specific, effect of the administration of corticotropin on the biosynthesis of, in rat adrenal gland (Dazord, A., Gallet, D. & Saez, J. M.) 233–239
Protein, dependence on calcium ions of the inhibition by α-adrenergic agonists and cholinergic agonists of the biosynthesis of, in rat parotid-gland slices (Kanagasunderam, P. & Lim, S. C.) 23–29
Protein, effect of surgical trauma on the turnover of, in rat skeletal muscle (Hoover-Plow, J. L. & Clifford, A. J.) 137–142
Protein, effects of starvation on the concentration of ribonucleic acid and the turnover of, in active and immobilized rat skeletal muscle (Goldspink, D. F.) 603–606
Protein, inhibitory effect of modeccin on the elongation of polypeptide chains during the biosynthesis of, catalysed by brine-shrimp ribosomes (Montanaro, L., Sperti, S., Zamboni, M., Denaro, M., Testoni, G., Gasperi-Campani, A. & Stirpe, F.) 371–379
Protein kinase, adenosine 3′:5′-cyclic monophosphate-dependent, inactivation of rat epididymal adipose-tissue glycerol phosphate acyltransferase catalysed by, and its possible involvement in the regulation of the biosynthesis of triacylglycerols (Nimmo, H. G. & Houston, B.) 607–610
Protein kinases, effects of polyamines on the reactions catalysed by, associated with rat ventral-prostate-gland chromatin and non-histone proteins (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams-Ashman, H. G.) 739–750
Protein modulator, calcium ion-dependent, properties of, of the activities of cyclic nucleotide phosphodiesterases of mouse epidermis (Murray, A. W. & Rogers, A.) 727–732
Protein, non-histone, high-mobility-group-type, high-molecular-weight, oviduct, chicken, isolation of (Teng, C. S., Gallagher, K. & Teng, C. T.) 1003–1006
Protein, oestradiol-17β-receptor, binding of the complex of oestradiol-17β with, to hypothalamus chromatin from male and female sheep (Perry, B. N. & Lopez, A.) 873–883
Protein, progesterone-receptor, binding of the complex of progesterone with, to hypothalamus chromatin from male and female sheep (Perry, B. N. & Lopez, A.) 873–883
Protein, progesterone-receptor, cytosolic, uterus, human, interaction of progестins with (Kasid, A., Buckshee, K., Hingorani, V. & Laumas, K. R.) 531–539
Protein, purification and properties of a factor inhibitory towards the biosynthesis of, from skeletal muscle of normal mice and those with muscular dystrophy (Petrushyn, R. A. & Nicholls, D. M.) 907–917
Protein, rates of biosynthesis of, in chicken skeletal muscle, heart muscle and smooth muscle (Laurent, G. J., Sparrow, M. P., Bates, P. C. & Millward, D. J.) 393–401
Protein, turnover of, in chick skeletal muscle during growth (Maruyama, K., Sunde, M. L. & Swick, R. W.) 573–582
Proteinases, sensitivity towards, of the release of α-amylase and ribonuclease by rat pancreatic microsomal fraction (Pearce, P. D., May, B. K. & Elliott, W. H.) 611–614
Protein–polysaccharides, see Proteoglycans
Proteins, collagenous, biosynthesis and partial characterization of, of rat lens capsule (Heathcote, J. G., Sear, C. H. J. & Grant, M. E.) 283–294
Proteins L7 and L12, ribosomal, Escherichia coli, characterization of the acidic ribosomal phosphoprotein Lp, from Krebs II ascites cells and its relationship to (Leader, D. P. & Coia, A. A.) 569–572
Proteins, membrane, lysosomal, liver, rat, evidence that most of, are exposed to the cytoplasm (Schneider, D. L., Burnside, J., Gorga, F. R. & Nettleton, C. J.) 75–82
Proteins, mitochondrial, liver, rat, choice of precursors for the measurement of the turnover of proteins by a double-isotope method and its application to the study of (Burgess, R. J., Walker, J. H. & Mayer, R. J.) 919–926
Proteins, mitochondrial, liver, rat, relative rates of turnover of subunits of (Walker, J. H., Burgess, R. J. & Mayer, R. J.) 927–932
Proteins, non-histone, effects of polyamines on the reactions catalysed by protein kinases associated with chromatin and, of rat ventral-prostate-gland nuclei (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams-Ashman, H. G.) 739–750
Proteins, oestrogen-receptor, uterus, rat, binding characteristics, content and intracellular distribution of, in relation to intra-uterine devices and the oestrous cycle (Myatt, L., Chaudhuri, G., Elder, M. G. & Lim, L.) 523–529
Proteins, ribosomal, effect of various methods of preparation on the apparent composition of, of rabbit reticulocyte ribosomes (Huvos, P., Fey, S. & Hardwicke, P. M. D.) 381–391
1978
INDEX OF SUBJECTS

Proteoglycans, cartilage, articular, human, age-related changes in the composition and structure of (Bayliss, M. T. & Ali, S. Y.) 683–693

Proteoglycans, sulphated, endocytosis of, by cultured human skin fibroblasts (Prinz, R., Schwermann, J., Buddecke, E. & von Figura, K.) 671–676

Protons, anion/calcium ion ratios and production of, during the uptake of calcium ions by rat heart and liver mitochondria (Harris, E. J.) 983–991

Pseudomonic acid, inhibition by, of the activity of iso-leucyl-transfer ribonucleic acid synthetase in Escherichia coli M.R.E. 600 (Hughes, J. & Mellows, G.) 305–318

Pulmonary surfactant, accumulation and turnover of, in rabbit lung (Desai, R., Tetley, T. D., Curtis, C. G., Powell, G. M. & Richards, R. J.) 455–462

Purine nucleotides, systematic variations in the concentrations of, in steady-state perfused rat heart (Bates, D. J., Perrett, D. & Mowbray, J.) 485–493

Pyruvate dehydrogenase, stimulation by vasopressin of the activity of, in perfused rat liver (Hems, D. A., McCormack, J. G. & Denton, R. M.) 627–629

Pyruvate, exogenous, effect of, on the induction by glucose of the release of insulin by isolated rat islets of Langerhans (Sener, A., Hans, C., Islets of proinsulin J.) 506

Pyruvate, stimulation by lactate and, of the biosynthesis of proinsulin and the release of insulin by isolated rat islets of Langerhans (Jain, K., Asina, S. & Logothetopoulos, J.) 31–37

Rana temporaria, see Frog

Red blood cells, see Erythrocytes

Redox state, effect of, of the cytosolic nicotinamide-adenine dinucleotide couple on the activity of adenine 3′:5′-cyclic monophosphate phosphodiesterase and its role in the control of the responsiveness of isolated rat hepatocytes to glucagon (Clark, M. G. & Jarrett, I. G.) 805–816

Renin, interconversion of, and high-molecular-weight renin in dog kidney cortex (Funakawa, S., Funae, Y. & Yamamoto, K.) 977–981

Respiration, protective role of carotenoids in the photosensitivity of, by Neurospora crassa mitochondria (Ramadan-Talib, Z. & Prebble, J.) 767–775

Respiratory state, influence of, on the activity of monoamine oxidase in isolated rat liver mitochondria (Smith, G. S. & Reid, R. A.) 1011–1014

Reticulocytes, rabbit, effect of various methods of preparation on the apparent composition of ribosomal proteins of ribosomes from (Huvos, P., Fey, S. & Hardwicke, P. M. D.) 381–391

Reticulocytes, rat and rabbit, accelerated degradation of the protein formed in, under conditions of depletion of individual amino acids (Chandler, C. S. & Ballard, F. J.) 151–158

Reticulum, endoplasmic, liver, rat, evidence for the presence of a subpopulation of ribosomes bound to, that are detached in vitro by carcinogens and by centrifugation (Palmer, D. N., Rabin, B. R. & Williams, D. J.) 9–14

Ribonuclease, sensitivity towards proteinases of the release of α-amylase and, by rat pancreatic microsomal fraction (Pearce, P. D., May, B. K. & Elliott, W. H.) 611–614

Ribonucleic acid, effects of starvation on the turnover of protein and the concentration of, in active and immobilized rat skeletal muscle (Goldspink, D. F.) 603–606

Ribonucleic acid, high-molecular-weight, metabolism of, in hypothalamic and cortical regions of female rat brain during development (Hall, C. & Lim, C.) 511–521

Ribonucleic acid, initiation of the transcription of deoxy-ribonucleic acid for the biosynthesis of, in normal and phosphorylated rat liver nucleosomes (Ord, M. G. & Stocken, L. A.) 615–618

Ribonucleic acid, nuclear, heterogeneous, use of rat liver nucleoplasm for the characterization of the biosynthesis of, in rat liver in vivo (Beebe, T. J. C.) 715–725

Ribonucleic acid polymerase II, use of rat liver nucleoplasm for the characterization of the activity of, in rat liver in vivo (Beebe, T. J. C.) 715–725

Ribonucleic acid, ribosomal, onset of the degradation of, during cessation of growth in baby-hamster kidney BHK-21/C13 cells (Melvin, W. T. & Keir, H. M.) 933–941

[1-14C]Ribose 5-phosphate, distribution of 14C in glucose 6-phosphate biosynthesized from, by a rat liver extract and its relevance to the pentose phosphate pathway for the metabolism of glucose (Williams, J. F., Clark, M. G. & Blackmore, P. F.) 241–256

Ribosomal proteins L7 and L12, Escherichia coli, characterization of the acidic ribosomal phosphoprotein L7 from Krebs II ascites cells and its relationship to (Leader, D. P. & Coia, A. A.) 569–572

Ribosomal proteins, see also Proteins, ribosomal

Ribosomal ribonucleic acid, see Ribonucleic acid, ribosomal

Ribosomes, brine-shrimp, inhibitory effect of modeccin on the elongation of polypeptide chains during the biosynthesis of protein catalyst by (Montanaro, L., Sperti, S., Zamboni, M., Denaro, M., Testoni, G., Gasperi-Campagna, A. & Stirpe, F.) 371–379

Ribosomes, membrane-bound, liver, rat, evidence for the presence of a subpopulation of, that are detached in vitro by carcinogens and by centrifugation (Palmer, D. N., Rabin, B. R. & Williams, D. J.) 9–14

Ribosomes, onset of the degradation of, during cessation of growth in baby-hamster kidney BHK-21/C13 cells (Melvin, W. T. & Keir, H. M.) 933–941

Ribosomes, reticulocyte, rabbit, effect of various methods of preparation on the apparent composition of ribosomal proteins of (Huvos, P., Fey, S. & Hardwicke, P. M. D.) 381–391

Root nodules, kidney-bean, oxidation of glycine by leghaemoglobin from, and associated catabolic reactions at the haem group (Lehtovaara, P.) 351–358

Root nodules, leguminous-plant, formation of isomers of biliverdin during the degradation of leghaemoglobins from, of various species (Lehtovaara, P. & Perttilä, U.) 359–364

Salivary gland, parotid, rat, control of the biosynthesis and release of amylase by (McPherson, M. A. & Hales, C. N.) 855–863

Vol. 176
Salivary gland, parotid, rat, dependence on calcium ions of the inhibition by α-adrenergic agonists and cholinergic agonists of the biosynthesis of protein in slices of (Kanagasuntheram, P. & Lim, S. C.) 23–29

Sarcoplasm, skeletal-muscle, rat, effect of surgical trauma on the turnover of protein in, and myofibrils (Hoover-Plow, J. L. & Clifford, A. J.) 137–142

[1-Sarcosine,8-alanine]angiotensin II, see Angiotensin II, [1-sarcosine,8-alanine]-

Serine, characteristics of the transport of alanine, glutamine and, across the plasma membrane of isolated rat hepatocytes (Joseph, S. K., Bradford, N. M. & McGivan, J. D.) 827–836

Serotonin, see 5-Hydroxytryptamine

Sex, variation of the concentrations of carnitine in various rat tissues with age and (Borum, P. R.) 677–681

Skeletal muscle, see Muscle, skeletal

Skin fibroblasts, human, cultured, endocytosis of sulphated proteoglycans by (Prinz, R., Scherrer, J., Buddecke, E. & von Figura, K.) 671–676

Skin fibroblasts, human, cultured, extensive conjugation of metabolites of 3,4-dihydroxyphenylalanine in, and rat hepatoma cells (Crooks, P. A., Breakefield, X. O., Sulens, C. H., Castiglione, C. M. & Coward, J. K.) 187–196

Skin, mouse, properties of the calcium ion-dependent protein modulator of the activities of cyclic nucleotide phosphorylases of (Murray, A. W. & Rogers, A.) 727–732

Small intestine, see Intestine, small

Smooth muscle, see Muscle, smooth

Somatotropin, stimulation by phospholipase A of the content of prostanadlin E and the biosynthesis of, in rat anterior pituitary gland (Betteridge, A. & Wallis, M.) 319–323

Soya bean, see Bean, soya

Spermidine, effect of, and other polyamines on the reactions catalysed by protein kinases associated with rat ventral-prostate-gland chromatin and non-histone proteins (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams-ASMASH, H. G.) 739–750

Spermidine, pathway for the biosynthesis of, and other polyamines in Caldariella acidophila (De Rosa, M., De Rosa, S., Gambacorta, A., Carteni-Farina, M. & Zappia, V.) 1–7

Spermine, effect of, and other polyamines on the reactions catalysed by protein kinases associated with rat ventral-prostate-gland chromatin and non-histone proteins (Ahmed, K., Wilson, M. J., Goueli, S. A. & Williams-ASMASH, H. G.) 739–750

Sporulation, accumulation of calcium ions during, of Bacillus megaterium KM (Hogarth, C. & Ellar, D. J.) 197–203

Starvation, effects of, on the turnover of protein and the concentration of ribonucleic acid in active and immobilized rat skeletal muscle (Goldspink, D. F.) 603–606

Starvation, opposite effects of, on the oxidation of adenine and on adenine-induced release of insulin by isolated mouse islets of Langerhans (Andersson, A.) 619–621

Steroids, effects of angiotensin II and [1-sarcosine,8-alanine]angiotensin II on the production of adenosine 3':5'-cyclic monophosphate and the biosynthesis of, by isolated rat adrenal-gland cortex glomerulosa cells (Bing, R. F. & Schulster, D.) 39–45

Stomach, human, digestion of ovalbumin by pepsins I, 3 and 5 from (Walker, V. & Taylor, W. H.) 429–432

Stomach, rat, possible role of 5-hydroxytryptamine as mediator in the action of calcitonin on, and small intestine and pancreas (Nakahla, A. M. & Latif, A.) 339–342

Streptozotocin-diabetes, see Diabetes, streptozotocin-induced

Sulphate, inorganic, activity of phenol sulphotransferase and the metabolism of, in isolated perfused rat liver (Mulder, G. J. & Keulemans, K.) 959–965

Supernatant fraction, see Cytosol

Synaptosomes, brain, guinea-pig, activation by calcium ions of the hydrolysis of phosphatidyl-myoinositol 4-phosphate (diphosphoinositol) and phosphatidylinositol 4,5-bisphosphate (triphosphoinositide) by (Griffin, H. D. & Hawthorne, J. N.) 541–552

Synaptosomes, brain, rat, rapid method for the isolation of a relatively pure metabolically competent preparation of (Booth, R. F. G. & Clark, J. B.) 365–370


Thromboxane synthase, evidence that the formation of malondialdehyde in human platelets is catalysed by (McMillan, R. M., MacIntyre, D. E., Booth, A. & Gordon, J. L.) 595–598

Thyroid hormones, modulation by, of the numbers of β-adrenergic receptors in membranes of isolated rat epididymal adipocytes (Giudicelli, Y.) 1007–1010

Thyroxyne, effects of cortisol, corticotropin and, on the biosynthesis of glycerolipids and on the activity of phosphatidate phosphatase in rat liver (Glenny, H. P. & Brindley, D. N.) 777–784

Thyroxyne, effects of, on the activity of phosphatidate phosphatase in rat liver after the administration of ethanol and glycerol to the animals (Savolainen, M. J. & Hassinen, I. E.) 885–892

Toad (Bufo marinus), effects of cholera toxin and guanosine 5'-[β-imido]triphosphate on the affinity of the β-adrenergic receptors of erythrocyte membranes from (Fischer, J. & Sharp, G. W. G.) 505–510

Trauma, surgical, effect of, on the turnover of protein in rat skeletal muscle (Hoover-Plow, J. L. & Clifford, A. J.) 137–142

Triacylglycerols, inactivation of rat epididymal adipose-tissue glycerol phosphate acyltransferase catalysed by adenosine 3':5'-cyclic monophosphate-dependent protein kinase and its possible involvement in the regulation of the biosynthesis of (Nimmo, H. G. & Houston, B.) 607–610

Triglycerides, see Triacylglycerols

3,3',5'-Tri-iodothyronine, modulation by, of the numbers of β-adrenergic receptors in membranes of isolated rat epididymal adipocytes (Giudicelli, Y.) 1007-1010

Triphosphoinositide, see Phosphatidyl-myo-inositol 4,5-bisphosphate

Tryptophan, differential effects of, on gluconeogenesis in isolated rat and guinea-pig hepatocytes (Smith, S. A., Elliott, K. R. F. & Pogson, C. I.) 817-825

Tyrosine aminotransferase, participation of cysteine and cystine in the inactivation of, in rat liver homogenates (Buckley, W. T. & Milligan, L. P.) 449-454

Ubiquinone-8, deficiency in the pathway for the biosynthesis of, in a mutant of Escherichia coli K12 that is sensitive to chlorate when grown aerobically (Giordano, G., Grillet, L., Rosset, R., Dou, J. H., Azoulay, E. & Haddock, B. A.) 553-561

Urea, effects of alloxan-induced diabetes on the formation of glucose and, in isolated rabbit liver cells (Zaleski, J. & Bryla, J.) 563-568


Uterus, human, interaction of progestins with the cytosolic progesterone-receptor protein of (Kasid, A., Buckshee, K., Hingorani, V. & Laumas, K. R.) 531-539

Uterus, rat, binding characteristics, content and intracellular distribution of oestrogen-receptor proteins in, in relation to intra-uterine devices and the oestrous cycle (Myatt, L., Chaudhuri, G., Elder, M. G. & Lim, L.) 523-529

Valine, accelerated degradation of protein formed in rat and rabbit reticulocytes under conditions of depletion of, and other individual amino acids (Chandler, C. S. & Ballard, F. J.) 151-158

Vasopressin, effects of phenylephrine, glucagon and, on gluconeogenesis and on enzymes involved in the metabolism of glycogen in isolated rat hepatocytes (Hue, L., Feliu, J. E. & Hers, H.-G.) 791-797

Vasopressin, stimulation by angiotensin, oxytocin and, of gluconeogenesis in isolated rat hepatocytes (Whitton, P. D., Rodrigues, L. M. & Hems, D. A.) 893-898

Vasopressin, stimulation by, of the activity of pyruvate dehydrogenase in perfused rat liver (Hems, D. A., McCormack, J. G. & Denton, R. M.) 627-629

Vicia faba, see Bean, broad

Vitamin D₃, see Cholecalciferol
ACKNOWLEDGEMENT TO REFEREES

The Editorial Board of the Biochemical Journal gratefully acknowledges the assistance given during the 1977–78 academic year by the following referees:

E. P. Abraham  R. B. Beechey  B. Capon
D. H. Adams  J. G. Beeley  N. G. Carr
R. L. P. Adams  E. A. Bell  C. J. Carter
S. Ainsworth  D. S. Bendall  M. A. Gawthorne
M. Akhtar  C. S. Berry  R. A. Chalmers
K. G. M. M. Alberti  B. Birdsall  D. Chapman
W. N. Aldridge  J. O. Bishop  P. A. Charlwood
S. Y. Ali  J. A. Blair  C. J. Chesterton
D. Allan  A. Blow  W. W. Christie
A. Allen  D. M. Blow  G. D. Clarke
A. K. Allen  T. Blundell  J. Clegg
A. C. Allison  R. Bonnett  R. A. Clegg
R. P. Ambler  R. Booth  M. Ciemens
J. C. Anderson  D. Boulter  G. A. Cod
P. Andrews  J. C. Boursnell  J. R. Coggins
G. B. Ansell  D. Bowen  P. Cohen
D. J. Anstee  D. H. Boxer  R. Coleman
C. Anthony  C. A. R. Boyd  M. G. Combe
H. R. V. Arnstein  G. S. Boyd  J. Conchie
S. J. H. Ashcroft  M. J. Brammer  G. M. W. Cook
C. C. Ashley  D. Bray  B. A. Cooke
E. D. T. Atkins  I. Bremner  J. Coombs
G. L. Atkins  J. W. Bridges  R. A. Cooper
A. Atkinson  A. S. Brill  H. G. Coore
H. S. Bachelard  K. Brocklehurst  D. B. Coul
J. S. D. Bacon  J. R. Bronk  B. Crabtree
A. A.-B. Badawy  B. L. Brown  R. K. Craig
A. J. Bailey  S. B. Brown  N. Crawford
E. Bailey  K. R. Bruckdorfer  J. M. Creeth
G. S. Bailey  D. Brundish  J. E. Cremer
G. D. Baird  R. V. Brun  E. M. Crook
R. Balazs  C. J. Bruton  M. J. Crumpton
B. C. Baldwin  J. Bryant  A. Cryer
C. W. Bamforth  J. D. Bu’Lock  E. Cundliffe
A. D. Bangham  B. Burchell  L. Cuzner
B. E. C. Banks  K. Burdett  K. Dalziel
J. Barber  R. H. Burdon  N. E. Dance
R. G. Bardsley  K. Burton  B. N. Dancer
W. G. Bardsley  A. F. Bury  P. D'Arcy-Hart
T. Barkas  J. A. Buswell  D. R. Davies
G. R. Barker  P. H. W. Butterworth  D. S. Davies
M. J. Barnes  P. J. Butterworth  E. Davies
M. McC. Barnes  P. J. Buttery  N. T. Davies
A. J. Barrett  A. F. Cameron  P. Davies
W. Bartley  K. A. Cammack  A. P. Dawson
J. M. Basford  R. Cammack  R. M. C. Dawson
M. Bayliss  M. Campbell  P. D. G. Dean
G. H. Heaven  P. N. Campbell  R. T. Dean
G. Beddard  S. Campo  J. de Belleruche
T. J. C. Beebee  D. J. Candy  F. De Matteis

(iii)
ACKNOWLEDGEMENT TO REFEREES

A. J. Dickson
I. Dickson
A. T. Diplock
H. B. F. Dixon
A. S. R. Donald
I. A. Donaldson
H. M. Dott
V. C. Duance
J. P. Durham
R. A. Dwek
T. A. Dyer
R. R. Eady
S. B. Easterbrook-Smith
J. S. Easterby
A. A. Eddy
P. A. Edwards
R. A. Eisenthal
G. H. Elder
K. R. F. Elliott
R. Ellis
D. C. Ellwood
D. T. Elmore
S. R. Elsdon
P. C. Engel
P. J. England
M. B. Enser
M. P. Esnouf
D. J. Etherington
M. C. W. Evans
R. B. Fears
J. Feeney
S. Ferguson
E. B. Fern
H. N. Fernley
P. Ferré
C. A. Fewson
E. M. Fielden
J. B. C. Findlay
J. B. Finean
S. Fitton-Jackson
R. Flavell
J. C. Fletcher
R. J. Flower
K. Fotherby
L. A. Fothergill
D. R. Fraser
N. Frearson
R. B. Freedman
D. Fuller
T. Galliardi
D. J. Galton
P. B. Garland
P. J. Garlick
G. A. Garton
P. J. Geary
A. J. Geddes
R. A. Gibbons
W. Gibbons
D. Gibbs
G. A. Gilbert
I. Giles
R. S. Gilmour
D. Girmes
J. Glover
I. M. Glynn
J. P. Goddard
R. Goldbach
D. F. Goldspink
B. D. Gomperts
P. W. Goodenough
G. H. Goodwin
A. H. Gordon
B. Gould
G. Gould
A. B. Graham
M. E. Grant
C. D. Green
I. C. Green
N. M. Green
A. L. Greenbaum
C. Greenwood
G. Gregoriadis
N. A. Gregson
D. Grierson
W. G. Griffin
J. R. Griffiths
K. Griffiths
M. I. Gurr
H. Gutfriend
S. Gutteridge
B. A. Haddock
C. N. Hales
A. P. Halestrap
S. E. Halford
H. Hall
M. A. Hall
T. Hallinan
B. Halliwell
W. A. Hamilton
V. Hansson
T. E. Hardingham
K. G. Hardy
D. A. Harris
E. J. Harris
H. E. Harris
P. Harrison
R. Harrison
I. C. Hart
E. Hartree
J. Harwood
R. Harwood
J. N. Hawthorne
D. F. Heath
F. W. Hemming
D. A. Hems
D. G. Herries
G. M. Herring
T. R. Heskel
S. J. Higgins
R. H. Hinton
A. R. Hipkiss
C. H. S. Hitchcock
R. Hoffenberg
J. G. Hoggett
J. J. Holbrook
J. S. Holden
M. Holden
G. Holdsworth
G. Holman
A. M. Holmes
W. E. Hornby
D. Hough
M. D. Houslay
S. L. Howell
D. P. Hucklesby
A. K. Huggins
N. C. Hughes-Jones
N. Hutson
H. P. A. Illing
J. I. Illingworth
W. J. Ingleedew
R. F. Itzhaki
G. Jack
A. H. Jackson
D. S. Jackson
J. B. Jackson
R. J. Jackson
W. Jacobson
S. S. Jafferji
A. T. James
K. James
S. James
V. H. T. James
R. Jeffcoat
J. Jeffery
P. C. Jocelyn
P. John
R. John
E. W. Johns
P. Johnson
I. R. Johnston
A. D. Jones
C. T. Jones
D. S. Jones
E. A. Jones
J. G. Jones
K. W. Jones
ACKNOWLEDGEMENT TO REFEREES
