OFFICERS AND COMMITTEE, 1975–76

Chairman of the Committee  
T. S. Work

Treasurer  
D. F. Elliott

General Secretary  
H. M. Keir

Publications Secretary  
R. M. C. Dawson

Meetings Secretary  
J. B. Lloyd

Assistant Meetings Secretary  
H. F. Bradford

Committee  
G. B. Ansell

B. A. Askonas, F.R.S.

H. S. Bachelard

K. Burton, F.R.S.

J. T. Dingle*

C. A. Fewson

C. Green

K. Griffiths

M. G. Harrington

J. N. Hawthorne

C. H. S. Hitchcock

J. J. Holbrook

H. K. King

R. J. B. King

T. F. Slater

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

*Ex Officio Member of Committee; representative of Editorial Board of the Biochemical Journal

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)].

The major publication of the Biochemical Society is the Biochemical Journal. Contributors (who need not be members of the Biochemical Society) may be interested to know that the Journal places emphasis on prompt publication of both full-length papers (on average about 6 months after receipt) and rapid papers (on average 10–12 weeks after receipt).

The 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.
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 1976 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>1 Jan. 153 1</td>
<td>15 Jan. 154 1</td>
</tr>
<tr>
<td>1 Feb. 153 2</td>
<td>15 Feb. 154 2</td>
</tr>
<tr>
<td>1 Mar. 153 3*</td>
<td>15 Mar. 154 3*</td>
</tr>
<tr>
<td>1 Apr. 155 1</td>
<td>15 Apr. 156 1</td>
</tr>
<tr>
<td>1 May 155 2</td>
<td>15 May 156 2</td>
</tr>
<tr>
<td>1 June 155 3*</td>
<td>15 June 156 3*</td>
</tr>
<tr>
<td>1 July 157 1</td>
<td>15 July 158 1</td>
</tr>
<tr>
<td>1 Aug. 157 2</td>
<td>15 Aug. 158 2</td>
</tr>
<tr>
<td>1 Sept. 157 3*</td>
<td>15 Sept. 158 3*</td>
</tr>
<tr>
<td>1 Oct. 159 1</td>
<td>15 Oct. 160 1</td>
</tr>
<tr>
<td>1 Nov. 159 2</td>
<td>15 Nov. 160 2</td>
</tr>
<tr>
<td>1 Dec. 159 3*</td>
<td>15 Dec. 160 3*</td>
</tr>
</tbody>
</table>

* Completes volume, and includes Indexes.

Biochemical Society Transactions. This is now a separate publication (see below). Volume 4 will be published in 1976, in six parts.

Subscription Rates to the Biochemical Journal. For non-members of the Biochemical Society the subscription in 1976 is £124.00. Subject to exchange variation the rate for U.S.A., Canada and Mexico is $320.00 (despatch by air freight to these countries).

Subscribers to the Biochemical Journal can subscribe to Biochemical Society Transactions on a joint subscription, saving £10 ($25.00). The joint subscription is £138.00 ($355.00 to addressees in U.S.A., Canada and Mexico; both publications despatched by air freight).

Terms are cash with order or against proforma invoice. Orders and subscriptions should be sent to the Biochemical Society (Publications), 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 (Publications), P.O. Box 32, Commerce Way, Colchester CO2 8HP, Essex.

Microforms. The following versions are available.

(a) Microfilm (35mm): Volumes 1–101.

(b) Microfiche (98-image): Volumes 102–152.

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.
<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
<th>Author</th>
<th>Page</th>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abra, R. M.</td>
<td>561</td>
<td>Felig, P.</td>
<td>709</td>
<td>Micklem, K. J.</td>
<td>561</td>
</tr>
<tr>
<td>Agarwal, M. K.</td>
<td>567</td>
<td>Fujiwara, T.</td>
<td>577</td>
<td>Midgley, M.</td>
<td>659</td>
</tr>
<tr>
<td>Alp, P. R.</td>
<td>689</td>
<td>George, R.</td>
<td>639</td>
<td>Morris, B. J.</td>
<td>625</td>
</tr>
<tr>
<td>Ballard, F. J.</td>
<td>717</td>
<td>Greengard, O.</td>
<td>613</td>
<td>Murer, H.</td>
<td>597</td>
</tr>
<tr>
<td>Berry, C. S.</td>
<td>783</td>
<td>Gutowski, S. J.</td>
<td>731</td>
<td>Newsholme, E. A.</td>
<td>677</td>
</tr>
<tr>
<td>Bridges, J. W.</td>
<td>773</td>
<td>Hallinan, T.</td>
<td>783</td>
<td>Nurminen, T.</td>
<td>689</td>
</tr>
<tr>
<td>Caldecourt, M.</td>
<td>783</td>
<td>Hayakawa, S.</td>
<td>577</td>
<td>Ögren, S.</td>
<td>751</td>
</tr>
<tr>
<td>Capano, M.</td>
<td>735</td>
<td>Hopfer, U.</td>
<td>597</td>
<td>Palaiologos, G.</td>
<td>709</td>
</tr>
<tr>
<td>Carafoli, E.</td>
<td>735</td>
<td>Hopgood, M. F.</td>
<td>717</td>
<td>Parke, D. V.</td>
<td>773</td>
</tr>
<tr>
<td>Carr, G.</td>
<td>669</td>
<td>Huang, A. H. C.</td>
<td>647</td>
<td>Pasternak, C. A.</td>
<td>561</td>
</tr>
<tr>
<td>Chain, E. B.</td>
<td>765</td>
<td>Jafferji, S. S.</td>
<td>653</td>
<td>Ramasarma, T.</td>
<td>639</td>
</tr>
<tr>
<td>Clarke, D. J.</td>
<td>725</td>
<td>Johnston, C. I.</td>
<td>625</td>
<td>Rosenberg, H.</td>
<td>731</td>
</tr>
<tr>
<td>Crompton, M.</td>
<td>735</td>
<td>Kako, H.</td>
<td>577</td>
<td>Seaston, A.</td>
<td>669</td>
</tr>
<tr>
<td>Crossley, J. R.</td>
<td>701</td>
<td>Kanematsu, Y.</td>
<td>577</td>
<td>Subba Rao, G.</td>
<td>639</td>
</tr>
<tr>
<td>Crossley, P. C.</td>
<td>701</td>
<td>Kinne, R.</td>
<td>597</td>
<td>Suomalainen, H.</td>
<td>751</td>
</tr>
<tr>
<td>Culvenor, J. G.</td>
<td>589</td>
<td>Klein, C.</td>
<td>743</td>
<td>Taskinen, L.</td>
<td>751</td>
</tr>
<tr>
<td>Darmon, M.</td>
<td>743</td>
<td>Knutton, S.</td>
<td>561</td>
<td>Whiting, P. H.</td>
<td>659</td>
</tr>
<tr>
<td>Das, I.</td>
<td>765</td>
<td>Kremmer, T.</td>
<td>589</td>
<td>Youle, R. J.</td>
<td>647</td>
</tr>
<tr>
<td>Dawes, E. A.</td>
<td>659</td>
<td>Lindahl, U.</td>
<td>605</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DelValle, J. A.</td>
<td>613</td>
<td>McPherson, F. J.</td>
<td>773</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>619</td>
<td>Michell, R. H.</td>
<td>653</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eddy, A. A.</td>
<td>669</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evans, W. H.</td>
<td>589</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NOTES FOR CONTRIBUTORS

It is the policy of the Biochemical Journal to publish papers in English in all fields of biochemical, provided that they make a sufficient contribution to biochemical knowledge. Papers may include new results obtained experimentally, descriptions of new experimental methods of biochemical importance, or new interpretations of existing results. Theoretical contributions will be considered equally with papers dealing with experimental work. All work presented should have as its aim the development of biochemical concepts rather than the mere recording of facts. Preliminary or inconclusive experiments should not generally be described.


Two types of paper are accepted by the editors. Full-length papers. Papers submitted for publication should be sent, preferably in duplicate, together with an extra copy of the synopsis, to the Editorial Secretary, The Biochemical Journal, 7 Warwick Court, London WC1R 5DP. Typescripts should bear the name and address of the person to whom the proof of the paper is to be sent.

Papers submitted should be written concisely. Special attention is directed to the sections below concerning the preparation of the typescript. Typescripts that are not concise or do not conform to the conventions of the Biochemical Journal will be returned to the authors for revision. If a paper that has been returned to an author for revision is not resubmitted within one month, it will, on resubmission, be deemed to be a new paper and the date of receipt altered accordingly. A revised paper containing a significant amount of new material will also be redated.

Submission of a paper to the Editorial Board implies that it has been approved by all the named authors, that it reports unpublished work, that it is not under consideration for publication elsewhere, and that if accepted for the Biochemical Journal it will not be published elsewhere in the same form, either in English or in any other language, without the consent of the Editorial Board.

Papers should be headed by a concise but informative full title, by the names of the authors (preferably with one forename in full, with initials, for each author) and by the name and address of the establishment where the work was performed. Details of financial support appear in the acknowledgements at the end of the paper.

Before preparing papers authors should consult a current issue of the Journal to make themselves familiar with the general format, such as the use of cross-headings, lay-out of tables and citation of references. Papers should be in double-spaced typing throughout (including the references and legends of table and figures) on sheets of uniform size with wide margins. The top copy should be submitted. Submission of a duplicate typescript in addition may avoid delay. It cannot be overemphasized that the need for revision of badly prepared typescripts inevitably leads to delays in publication.

Papers on specialized subjects should be presented so that they are intelligible to the ordinary reader of the Journal. Sufficient information must be included to permit repetition of the experimental work.

Rapid Papers. Typescripts should be submitted in duplicate, written in English, and conform strictly to the form of the Journal as far as spelling and abbreviations are concerned. Each rapid paper should be provided with a short synopsis (normally not exceeding 50 words). Such papers should not exceed 2400 words in length inclusive of the title, references etc. Authors may include insertions (preferably not more than two) such as tables, figures or schemes; in these cases authors must assess what proportion of a page these insertions will occupy and reduce the number of text words accordingly at the rate of 700 words per full page of the Journal. Authors are advised that the preparation of tables and especially figures is liable to cause an increase in publication time. In no circumstances whatsoever can a complete rapid paper occupy more than four pages of the Journal. Papers should be complete in themselves: (1) the methods used in experimental work must be adequately described or sufficient reference given to allow repetition of the work; (2) sufficient indication of the results of experimental work must be included to justify the claims made. Rapid papers should be addressed to the Editorial Secretary, The Biochemical Journal, 7 Warwick Court, London WC1R 5DP.
Index of Authors

ABRA, R. M. see MICKLEM, K. J. 561–566
AGARWAL, M. K. Identification and properties of renal mineralocorticoid receptors in relation to glucocorticoid binders in rat liver and kidney 567–575
AGRAWAL, H. C., FUJIMOTO, K. & BURTON, R. M. Accumulation and turnover of the classical Folch–Lees proteolipid proteins in developing an adult rat brain 265–269
ALP, P. R., NEWSMOLNE, E. A. & ZAMMIT, V. A. Activities of citrate synthase and NAD⁺-linked and NADP⁺-linked isocitrate dehydrogenase in muscle from vertebrates and invertebrates 689–700
ANSELL, G. R. see BERRY, T. 717–724
ASHTON, I. K. see JONES, C. T. 149–158
BAILEY, E. see FOSTER, P. C. 49–56
BAKER, R. R., DOWDALL, M. J. & WHITTAKER, V. P. The incorporation of radioactive fatty acids and of radioactive derivatives of glucose into the phospholipids of subsynaptosomal fractions of cerebral cortex 65–75
BALLARD, F. J. & HOPGOOD, M. F. Inactivation of phosphoenolpyruvate carboxykinase (GTP) by liver extracts 717–724
BARLOW, S. D. Decoyctidyline transport and pyrimidine deoxynucleotide metabolism in phytohaemagglutinin-stimulated pig lymphocytes 395–403
BERRY, C. S., CALDECOURT, M. & HALLINAN, T. Effect on uridine diphosphate glucurononyltransferase activity of depleting and restoring phosphotidios to guinea-pig liver microsomal preparations 783–785
BERTHILLIER, G., COLEMAN, R. & WALKER, D. G. The topographical location and unique nature of a glucokinase associated with the Golgi apparatus of rat liver 193–201
BERTHOLD, W. & LIM, L. Nucleo–cytoplasmic relationships of high-molecular-weight ribonucleic acid, including polyadenylated species, in the developing rat brain 529–539
BERTHOLD, W. & LIM, L. The metabolism of high-molecular-weight ribonucleic acid, including polyadenylated species, in the developing rat brain 517–527
BEYER, C. F. see KAO, P. C. 471–480
BILLING, B. H. see SUMMERFIELD, J. A. 507–516
BOOTH, R. see SUDIC, M. M. 559–560
BOWDEN, L. & LORD, J. M. Similarities in the polypeptide composition of glyoxysomal and endoplasmic-reticulum membranes from castor-bean endosperm 491–499
BRADFORD, N. M. see McGIVAN, J. D. 415–421
BRIDGES, B. J. see SEVERSON, D. L. 209–223; STANSBEY, D. 225–236
BRIDGES, J. W. see MCPHERSON, F. J. 773–780
BURTON, R. M. see AGRAWAL, H. C. 265–269
BYUS, C. V. & HERBST, E. J. Decarboxylases for polyamine biosynthesis in Drosophila melanogaster larvae 31–33
BYUS, C. V. & HERBST, E. J. The effect of polyamines on the synthesis of ribonucleic acid by Drosophila melanogaster larvae 23–29
CABRERA, C. M. see CLO', C. 253–256
CALDECOURT, M. see BERRY, C. S. 783–785
CANNON, M. see CARTER, C. J. 171–178
CAPANO, M. see CROMPTON, M. 735–742
CARILO, E. see CROMPTON, M. 735–742
CARR, G. see SEASTON, A. 669–676
CARTER, C. J., CANNON, M. & SMITH, K. E. Inhibition of protein synthesis in reticuloocyte lysates by trichoderrmin 171–178
CHAIN, E. see DAS, I. 765–772
CLARK, J. B. see LAY, J. C. K. 423–432
CLARKE, D. J. & MORRIS, J. G. Partial purification of a dicyclohexy carbodi-imide-sensitive membrane adenine triphosphatase complex from the obligately anaerobic bacterium Clostridium pasteurianum 725–729
CLAYCOMB, W. C. Poly(adenosine diphosphate ribose) polymerase activity and nicotinamide adenine dinucleotide in differentiating cardiac muscle 387–393
CLO', C., ORLANDINI, G. C., GUARNIERI, C. & CALDARERA, C. M. Role of oxygen on growth rate and gene activity in cultured chick-embryo heart cells 253–256
COLEMAN, R. see BERTHILLIER, G. 193–201
COOKE, B. A. & VAN DER KEMP, A. J. W. C. M. Protein kinase activity in rat testis interstitial tissue. Effect of luteinizing hormone and other factors 371–378
COOPER, R. H. see KERBEY, A. L. 327–348
CROMPTON, M., CAPANO, M. & CARAFOLI, E. Respiratory-dependent efflux of magnesium ions from heart mitochondria 735–742
CROSSLEY, J. R. see ASHCROFT, S. J. H. 701–707
CROSSLEY, P. C. see ASHCROFT, S. J. H. 701–707
CULVENOR, J. G. see EVANS, W. H. 589–595
DARMON, M. & KLEIN, C. Binding of concanavalin A and its effect on the differentiation of Dicyostelium discoidum 743–750
DAS, I. & CHAIN, E. B. Effect of heart work and insulin on the incorporation of [14C]-glucose into hexose phosphates, uridine diphosphate glucose and glycogen in the normal and insulin-deficient perfused rat heart under working and non-working conditions 765–772
DAWES, E. A. see WHITCHING, P. H. 659–668
DEVALLE, J. A. & GREEGARD, O. The regulation of phenylalanine hydroxylase in rat tissues in vivo. The maintenance of high plasma phenylalanine concentrations in suckling rats: a model for phenylketonuria 613–618
DEVALLE, J. A. see also GREEGARD, O. 619–624
DILS, R. see SPEAKE, B. K. 359–370
DOWDALL, M. J. see BAKER, R. R. 65–75
DOWIE, J. see HADDON, B. A. 285–294
Vol. 154
INDEX OF AUTHORS

Dworsky, P. Membrane attachment of folded chromosmes of Escherichia coli 239-241

Eddy, A. A. see Seaston, A. 669-676

Ellory, J. C. see Young, J. D. 43-48

Eloranta, T. O., Mäenpää, P. H. & Raina, A. M. Synthesis of hepatic polyamines, ribonucleic acid and S-adenosylmethionine in normal and oestrogen-treated chicks 95-103

Evans, C. J. see Sagoerson, E. D. 349-357


Felg, P. see Palaiologos, G. 709-716

Finean, J. B. see Low, M. G. 203-208

Firmn, W. see Jones, C. T. 159-161

Foster, P. C. & Bailey, E. Changes in the activities of the enzymes of hepatic fatty acid oxidation during development of the rat 49-56

Fritzson, P. see Tjernshaugen, H. 77-80

Fujimoto, K. see Agrawal, H. C. 265-269

Fujiwara, T. see Hayakawa, S. 577-587

Ganguly, J. see Joshi, P. S. 249-251

Garland, P. B., Littleford, S. J. & Haddock, B. A. A stopped-flow dual-wavelength spectrophotometer suitable for the study of respiratory chains 277-284

Garland, P. B. see also Haddock, B. A. 285-294

George, R. see Subba Rao, G. 639-645

Goldstein, L. & Newsulme, E. A. The formation of alanine from amino acids in diaphragm muscle of the rat 555-558

Graham, J. M. see Micklem, K. J. 561-566

Greengard, O. & DelValle, J. A. The regulation of phenylalanine hydroxylase in rat tissues in vivo. Substrate- and cortisol-induced elevations in phenylalanine hydroxylase activity 619-624

Greengard, O. see also DelValle, J. A. 613-618

Guarnieri, C. see Clo', C. 253-256

Gusseck, D. J. see Wade, R. S. 245-247

Gutowski, S. J. & Rosenberg, H. Energy coupling to active transport in anaerobically grown mutants of Escherichia coli K12 731-734

Haddock, B. A., Downie, J. A. & Garland, P. B. Kinetic characterization of the membrane-bound cytochromes of Escherichia coli grown under a variety of conditions by using a stopped-flow dual-wavelength spectrophotometer 285-294

Haddock, B. A. see also Garland, P. B. 277-284

Hales, C. N. see Luzko, J. P. 11-21

Hall, R. C. see Spanner, S. 133-140

Hallinan, T. see Berry, C. S. 783-785

Hassels, B. F. see Bauer, C. H. 141-147

Hayakawa, S., Kanematsu, Y., Fujwara, T. & Kako, H. Microbiological degradation of bile acids. The preparation of some hypothetical metabolites involved in cholic acid degradation 577-587

Heinrich, R. see Raptoport, T. A. 449-469

Herbst, E. J. see Byus, C. V. 23-29, 31-33

Hollander, C. S. see Tai, H.-H. 257-264

Hopper, U. see Murer, H. 597-604

Hopgood, M. F. see Ballard, F. J. 717-724

Huang, A. H. C. see Youle, R. J. 647-652

Hudson, J. E. see Mathews, R. A. 57-64

Hughes, R. C. see Meager, A. 113-124

Irving, R. A., Mainwaring, W. I. P. & Spooner, P. M. The regulation of haemoglobin synthesis in cultured chick blastoderms by steroids related to 5ß-androstanone 81-93

Jafferi, S. S. & Michell, R. H. Muscarinic cholinergetic stimulation of phosphatidylinositol turnover in the longitudinal smooth muscle of guinea-pig ileum 653-655

Johnson, T. C. see Mathews, R. A. 57-64

Johnston, C. I. see Morris, B. J. 625-637

Jones, C. T. & Ashton, I. K. Lipid biosynthesis in liver slices of the foetal guinea pig 149-158

Jones, C. T. & Firmn, W. Lipid synthesis in vivo by tissues of the maternal and foetal guinea-pig 159-161

Joshi, P. S., Murthy, S. K. & Ganguly, J. Effect of vitamin A nutritional status on the growth of oestrogen-primed chick oviduct 249-251

Kako, H. see Hayakawa, S. 577-587

Kanematsu, Y. see Hayakawa, S. 577-587


Kappas, A. see Maines, M. D. 125-131


Kinne, R. see Murer, H. 597-604

Klein, C. see Darmon, M. 743-750

Knutton, S. see Micklem, K. J. 561-566

Kremmer, T. see Evans, W. H. 589-595

Kuhn, N. J. & White, A. Evidence for specific transport of uridine diphosphate galactose across the Golgi membrae of rat mammary gland 243-244

Lai, J. C. K. & Clark, J. B. Preparation and properties of mitochondria derived from synaptosomes 423-432

Lang, C. A. see Kao, P. C. 471-480; Mills, B. J. 481-490

Lehninger, A. L. see Spencer, T. L. 405-414

Lim, L. see Berthold, W. 57-577, 529-539

Lindahl, U. see Ögren, S. 605-611

Littelford, S. J. see Garland, P. B. 277-284

Lord, J. M. see Bowden, L. 491-499, 501-506

Low, M. G. & Finran, J. B. The action of phosphatidyl-inositol-specific phospholipases C on membranes 203-208

Luzko, J. P., Newby, A. C. & Hales, C. N. A rapid immunological procedure for the isolation of hormonally sensitive rat fat-cell plasma membrane 11-21

Lyakhovich, V. V. see Mishin, V. 307-310

Mäenpää, P. H. see Eloranta, T. O. 95-103

1976
INDEX OF AUTHORS

MAINES, M. D. & KAPPAS, A. Studies on the mechanism of induction of haem oxygenase by coaltar and other metal ions 125–131
MAINWARING, W. I. P. see IRVING, R. A. 81–93
MARKY, F. & WILD, D. G. An unusual precursor of 50S ribosomes in a mutant of Escherichia coli 311–318
MATHIEWS, R. A., JOHNSON, T. C. & HUDSON, J. E. Synthesis and turnover of plasma-membrane proteins and glycoproteins in a neuroblastoma cell line 57–64
MAYER, R. J. see SPEAKE, B. K. 359–370
McDERMOTT, J. R. Studies on the catabolism of N°-methylarginine, N°,N°-dimethylarginine and N°,N°-dimethylarginine in the rabbit 179–184
MCGIVAN, J. D., BRADFORD, N. M. & MENDES-LOURÃO, J. The regulation of carbamoyl phosphate synthase activity in rat liver mitochondria 415–421
MCPherson, F. J., BRIDGES, J. W. & PARKE, D. V. The effects of benzopyrene and safrole on benzo (a) pyrene-2-hydroxylase and other drug-metabolizing enzymes 773–780
MIDDLETON, J. E. M. Turnover as a control of ribonucleic acid accumulation in bacteria undergoing stepdown 541–552
MIDGLEY, M. see WHITING, P. H. 659–668
MILLS, B. J. & LANG, C. A. The biosynthesis of deoxyribonucleic acid during the life-span of the mosquito 481–490
MISHIN, V., POKROVSKY, A. & LYAKHOVICH, V. V. Interactions of some acceptors with superoxide anion radicals formed by the NADPH-specific flavoprotein in rat liver microsomal fractions 307–310
MORRIS, B. J. & JOHNSTON, C. I. Renin substrate in granules from rat kidney cortex 625–637
MORRIS, J. G. see CLARKE, D. J. 725–729
MURER, H., HOFFER, U. & KINNE, R. Sodium/potassium-antiport in brush-border-membrane vesicles isolated from rat small intestine and kidney 597–604
MURTHY, S. K. see JOSHI, P. S. 249–251
NEWBY, A. C. see LUZIO, P. J. 11–21
NEWSHOLME, E. A. see ALP, P. R. 689–700; GOLDSTEIN, L. 555–558; ZAMMIT, V. A. 677–687
NURMINEN, T., TASKINEN, L. & SUOMALAINEN, H. Distribution of membranes, especially of plasma-membrane fragments, during zonal centrifugations of homogenates from glucose-repressed Saccharomyces cerevisiae 751–763
ÖGREN, S. & LINDAHL, U. Metabolism of macromolecular heparin in mouse neoplastic mast cells 605–611
ORLANDINI, G. C. see CLO', C. 253–256
OWEN, O. E. see PATEL, M. S. 319–325
PALADINOS, G. & FELIG, P. Effects of ketone bodies on amino acid metabolism in isolated rat diaphragm 709–716
PARK, D. V. see MCPHERSON, F. J. 773–780
PARK, H. T. see KERBY, A. L. 327–348; STANSBIE, D. 225–236
PASTERNAK, C. A. see MICKLEM, K. J. 561–566; SIM, E. 105–111
PATEL, M. S. & OWEN, O. E. Effect of hyperphenylalaninaemia on lipid synthesis from ketone bodies by rat brain 319–325
PICTON, C. see SCOTT, T. A. 35–41
POKROVSKY, A. see MISHIN, V. 307–310
RAGAN, C. I. The structure and subunit composition of the particulate NADH-ubiquinone reductase of bovine heart mitochondria 295–305
RAIN, A. M. see ELORANTA, T. O. 95–103
RAMASARMA, T. see SUBBA RAO, G. 639–645
RAPPORT, S. M. see RAPOPORT, T. A. 449–469
REUTTER, W. G. see BAUER, W. G. 141–147
RODNIGHT, R. see WILLIAMS, M. 163–170
ROSENBERG, H. see GUTOWSKI, S. J. 731–734
SAGGERSON, E. D., SOORANNA, S. R. & EVANS, C. J. Insulin-like actions of nickel and other transition-metal ions in rat fat-cells 349–357
SCHUMM, D. E. see YANNARELL, A. 379–385
SCOTT, T. A. & PICTON, C. The conversion of 3-hydroxy-2,4,5-trihydroxymethylpyridine into pyridoxine by Kloekera apiculata 35–41
SEASTON, A., CARR, G. & EDDY, A. A. The concentration of glycine by preparations of the yeast Saccharomyces carlsbergensis depleted of adenine triphosphate. Effects of proton gradients and uncoupling agents 669–676
SHACKLETON, C. H. L. see SUMMERFIELD, J. A. 507–516
SIM, E. & PASTERNAK, C. A. The metabolism of the phosphonium analogue of choline in cultured cells. A useful nuclear-magnetic-resonance probe for membrane phosphatidyicholine 105–111
SKILLETTER, D. N. The influence of adenine nucleotides and oxidizable substrates on triethyltin-mediated chloride uptake by rat liver mitochondria in potassium chloride media 271–276
SLABAS, A. R. & WALKER, D. A. Localization of inhibition by adenine diphosphate of phosphoglycerate-dependent oxygen evolution in a reconstituted chloroplast system 185–192
SMITH, K. E. see CARTER, C. J. 171–178
SOORANNA, S. R. see SAGGERSON, E. D. 349–357
SPANNER, S., HALL, R. C. & ANSELL, G. B. Arterio-venous differences of choline and choline lipids across the brain of rat and rabbit 133–140
Vol. 154
INDEX OF AUTHORS

SPEAKE, B. K., DILLS, R. & MAYER, R. J. Regulation of enzyme turnover during tissue differentiation. Interactions of insulin, prolactin and cortisol in controlling the turnover of fatty acid synthetase in rabbit mammary gland in organ culture 359–370

SPELSBERG, T. C. & WILSON, J. T. Growth hormone and drug metabolism. Acute effects on nuclear ribonucleic acid polymerase activity and chromatin 439–448

SPELSBERG, T. C. see also WILSON, J. T. 433–438

SPENCER, T. L. & LEHNINGER, A. L. L-Lactate transport in Ehrlich ascites-tumour cells 405–414

SPOONER, P. M. see IRVING, R. A. 81–93


SUBBA RAO, G., GEORGE, R. & RAMASARMA, T. Stimulation of hepatic biogenesis of sterols on administration of adenosine compounds 639–645

SUDJIC, M. M. & BOOTH, R. Activity of 3-hydroxy-3-methylglutaryl-coenzyme A reductase in brains of adult and 7-day-old rats 559–560


SUOMALAINEN, H. see NURMINEN T. 751–763

TAI, C. L. see TAI, H.-H. 257–264


TASKINEN, L. see NURMINEN T. 751–763


TENG, C. T. see TENG, C. S. 1–9

TJERNBERGAUEN, H. & FRITZSON, P. Subcellular distribution of enzymes in different tissues of a deoxyinosine-activated nucleotidase 77–80

TUCKER, E. M. see YOUNG, J. D. 43–48

UGNKITCHANUKIT, A. see MEAGER, A. 113–124

VAN DER KEMP, A. J. W. C. M. see Cooke, B. A. 371–378

WADE, R. S. & GUSSECK, D. J. Tyrosine aminotransferase activity in the rabbit placenta. Evidence for decreased inducibility by insulin and cortisol as a function of gestational age 245–247

WALKER, D. A. see SLARAS, A. R. 185–192

WALKER, D. G. see BERTHILLIER, D. G. 193–201

WEBB, T. E. see YANNARELL, A. 379–385

WHITE, A. see KUHN, N. J. 243–244

WHITEHOUSE, S. see KERBEY, A. L. 327–348

WHITING, P. H., MIDGLEY, M. & DAWES, E. A. The regulation of transport of glucose, gluconate and 2-oxoglucurate and of glucose catabolism in Pseudomonas aeruginosa 659–668

WHITTAKER, V. P. see BAKER, R. R. 65–75

WILD, D. G. see MARKEY, F. 311–318

WILLIAMS, M. & RODNIGHT, R. Protein phosphorylation in respiring slices of guinea-pig cerebral cortex. Evidence for a role for noradrenaline and adenosine 3':5'-cyclic monophosphate in the increased phosphorylation observed on application of electrical pulses 163–170

WILSON, J. T. & SPELSBERG, T. C. Growth hormone and drug metabolism. Acute effects on microsomal mixed-function oxidase activities in rat liver 433–438

WILSON, J. T. see also SPELSBERG, T. C. 439–448


YOULE, R. J. & HUANG, A. H. C. Development and properties of fructose 1,6-bisphosphatase in the endosperm of castor-bean seedlings 647–652

YOUNG, J. D., ELLORY, J. C. & TUCKER, E. M. Amino acid transport in normal and glutathione-deficient sheep erythrocytes 43–48

ZAMMIT, V. A. & NEWSHOLME, E. A. Effects of calcium ions and adenosine diphosphate on the activities of NAD+-linked isocitrate dehydrogenase from the radular muscles of the whelk and flight muscles of insects 677–687

ZAMMIT, V. A. see also ALP, P. R. 689–700
Index of Subjects


Acetoacetate, effects of 3-hydroxybutyrate and, on the metabolism of amino acids in isolated rat diaphragm (Palaiologos, G. & Felig, P.) 709–716

Acetoacetate, effects of hyperphenylalaninaemia on the biosynthesis of lipids from 3-hydroxybutyrate and, in developing rat brain (Patel, M. S. & Owen, O. E.) 319–325

Acetylcholine, stimulation by, and other muscarinic cholinergic agents of the turnover of phosphatidylinositol in guinea-pig ileum longitudinal smooth muscle (Jafferji, S. S. & Mitchell, R. H.) 653–657

Acetyl-coenzyme A, roles of reduced and oxidized nicotinamide–adenine dinucleotide, coenzyme A and, in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of pyruvate dehydrogenase by the oxidation of fatty acids and ketone bodies and the effects of alloxan-diabetes in perfused rat heart (Kerby, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 327–348

N-Acylglucosamines, effect of, on the biosynthesis and secretion of insulin by perfused rat islets of Langerhans (Ashcroft, S. J. H., Crossley, J. R., & Crossley, P. C.) 701–707

Adenine nucleotides, influence of oxidizable substrates and, on the triethylin-mediated uptake of chloride ions by rat liver mitochondria in media containing potassium chloride (Skilleter, D. N.) 271–276

Adenosine 3':5'-cyclic monophosphate, effects of luteotrophin and other factors on the concentration of, and on the activity of protein kinase in rat testis interstitial tissue (Cooke, B. A. & van der Kemp, A. J. W. C. M.) 371–378

Adenosine 3':5'-cyclic monophosphate, evidence for a role for noradrenaline and, in the increased phosphorylation of proteins in respiring guinea-pig cerebral cortex slices observed on the application of electrical pulses (Williams, M. & Rodnight, R.) 163–170

Adenosine diphosphate, effects of calcium ions and, on the activity of nicotinamide–adenine dinucleotide-linked isocitrate dehydrogenases from whelk radular muscle and insect flight muscle (Zammit, V. A. & Newsholme, E. A.) 677–687

Adenosine diphosphate, localization of the inhibition by, of 3-phosphoglycerate-dependent evolution of oxygen in a reconstituted system of spinach-leaf chloroplasts (Slabas, A. R. & Walker, D. A.) 185–192

Adenosine, stimulation by the administration of compounds related to, of the biosynthesis of steroids in rat liver (Rao, G. S., George, R. & Ramasarma, T.) 639–645

Adenosine triphosphatase complex, membrane, dicyclohexylcarbodi-imide-sensitive, partial purification of, from Clostridium pasteurianum A.T.C.C. 6013 (Clarke, D. J. & Morris, J. G.) 725–729

Adenosine triphosphatase, magnesium ion-dependent, identification of, as a marker for fragments of Saccharomyces cerevisiae plasma membrane (Nurminen, T., Taskinen, L. & Suomalainen, H.) 751–763

Adenosine triphosphatase, role of, in the coupling of energy to the active transport of proline and glutamine in anaerobically grown mutants of Escherichia coli K12 (Gutowski, S. J. & Rosenberg, H.) 731–734

Adenosine triphosphatase, effects of proton gradients and uncoupling agents on the uptake of glycine by Saccharomyces carlsbergensis N.C.Y.C. 74 depleted of (Seaston, A., Carr, G. & Eddy, A. A.) 669–676

Adenosine triphosphatase, minimal comprehensive model describing steady states, quasi-steady states and time-dependent processes involved in the regulation of glycolysis in erythrocytes that takes into account the biosynthesis and consumption of (Rapoport, T. A., Heinrich, R. & Rapoport, S. M.) 449–469

Adenosine triphosphatase, stimulation by the administration of, and related compounds on the biosynthesis of steroids in rat liver (Rao, G. S., George, R. & Ramasarma, T.) 639–643

S-Adenosylmethylthione, biosynthesis of polyamines, ribonucleic acid and, in liver of normal and oestrogen-treated chicks (Eloranta, T. O., Mäenpää, P. H. & Raina, A. M.) 95–103

S-Adenosymethylthione decarboxylase, activities of ornithine decarboxylase and, involved in the biosynthesis of polyamines in Drosophila melanogaster larvae (Byus, C. V. & Herbst, E. J.) 31–33

Adipocytes, epididymal, rat, isolated, insulin-like actions of nickel and other transition-metal ions in (Saggerson, E. D., Sooranna, S. R. & Evans, C. J.) 349–357

Adipocytes, epididymal, rat, pools of exchangeable and total calcium in mitochondria of, and their role in the regulation of the activity of pyruvate dehydrogenase (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223

Adipocytes, epididymal, rat, rapid immunological procedure for the isolation of hormonally sensitive plasma membranes from (Luzio, J. P., Newby, A. C. & Hales, C. N.) 11–21

Adipose tissue, epididymal, rat, effects of starvation, alloxan-diabetes and high-fat diet on the regulation of the activities of pyruvate dehydrogenase and pyruvate dehydrogenase phosphate phosphatase in (Stansbie, D., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225–236

Adipose tissue, epididymal, rat, pools of exchangeable and total calcium in mitochondria of, and their role in the regulation of the activity of pyruvate dehydrogenase (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223

Adipose tissue, guinea-pig, maternal and foetal, pathway, for the biosynthesis of lipids in, and liver in vivo (Jones, C. T. & Firmin, W.) 159–161

Adrenaline, interactions of, and other acceptors with superoxide ion radicals formed by reduced nicotinamide–adenine dinucleotide phosphate–cytochrome reductase in rat liver microsomal fractions (Mishin, V., Pokrovsky, A. & Lyakhovich, V. V.) 307–310

Aedes aegypti, see Mosquito

Alanine, formation of, from other amino acids in rat diaphragm muscle (Goldstein, L. & Newsholme, E. A.) 555–558
INDEX OF SUBJECTS

Aldosterone receptors, kidney, rat identification and properties of, in relation to rat liver and kidney glucocorticoid receptors (Agarwal, M. K.) 567–575

Alloxan-diabetes, see Diabetes, alloxan-

Amino acids, effects of ketone bodies on the metabolism of, in isolated rat diaphragm (Palaiologos, G. & Felig, P.) 709–716

Amino acids, formation of alanine from, in rat diaphragm muscle (Goldstein, L. & Newsholme, E. A.) 555–558

Amino acids, transport of, in normal and glutathione-deficient sheep erythrocytes (Young, J. D., Ellory, J. C. & Tucker, E. M.) 43–48

5β-Androstane, regulation by steroids related to, of the biosynthesis of haemoglobin in cultured chick-embryo blastodermers (Irving, R. A., Mainwaring, W. I. P. & Spooner, P. M.) 81–93

Angiotensin I, formation of, from renin substrate in rat kidney-cortex granules (Morris, B. J. & Johnston, C. I.) 625–637

Arachidonate, properties of the rabbit kidney-medulla prostaglandin synthase system catalysing the biosynthesis of prostaglandins from (Tai, H.-H., Tai, C. L. & Hollander, C. S.) 257–264

Arthrobacter simplex, synthesis of some hypothetical intermediates involved in the degradation of cholic acid by (Hayakawa, S., Kanematsu, Y., Fujiwara, T. & Kako, H.) 577–587

Bean, castor (Ricinus communis), cellular origin of glyoxysomal proteins in endosperm of, during germination (Bowden, L. & Lord, J. M.) 501–506

Bean, castor (Ricinus communis), development and properties of fructose 1,6-diphosphatase in the endosperm of seedlings of (Youle, R. J. & Huang, A. H. C.) 647–652

Bean, castor (Ricinus communis), similarities in the composition of polypeptides of glyoxysomal and endoplasmic-reticulum membranes from endosperm of (Bowden, L. & Lord, J. M.) 491–499

Bean, castor (Ricinus communis), variants of cultured baby-hamster kidney cells resistant to the toxin (ricin) from (Meager, A., Ungkitchanukit, A. & Hughes, R. C.) 113–124


Bile acids, synthesis of some hypothetical intermediates involved in the degradation of, by Arthrobacter simplex (Hayakawa, S., Kanematsu, Y., Fujiwara, T. & Kako, H.) 577–587

Bile, role of rat and mouse liver bile-canalicular plasma membranes in the formation of (Evans, W. H., Kremmer, T. & Culvenor, J. G.) 589–595


Blastodermers, chick-embryo, cultured, regulation by steroids related to 5β-androstane of the biosynthesis of haemoglobin in (Irving, R. A., Mainwaring, W. I. P. & Spooner, P. M.) 81–93

Brain cortex, guinea-pig, evidence for a role for noradrenaline and adenosine 3':5'-cyclic monophosphate in the increased phosphorylation of proteins in respiring slices of, observed on the application of electrical pulses (Williams, M. & Rodnight, R.) 163–170

Brain cortex, guinea-pig, incorporation of fatty acids and of derivatives of glucose into the phospholipids of subsynaptosomal fractions of (Baker, R. R., Dowdall, M. J. & Whittaker, V. P.) 65–75

Brain, rat and rabbit, arteriovenous differences in the plasma concentrations of choline, phosphatidylcholine and lysophosphatidylcholine across (Spanner, S., Hall, R. C. & Ansell, G. B.) 133–140

Brain, rat, developing and adult, accumulation and turnover of the classical Folch–Lees proteolipid proteins in (Agrawal, H. C., Fujimoto, K. & Burton, R. M.) 265–269

Brain, rat, developing and adult, activity of 3-hydroxy-3-methylglutaryl-coenzyme A reductase in (Sudjic, M. M. & Booth, R.) 559–560

Brain, rat, developing, effect of hyperphenylalaninaemia on the biosynthesis of lipids from ketone bodies in (Patel, M. S. & Owen, O. E.) 319–325

Brain, rat, developing, metabolism of high-molecular-weight species of ribonucleic acid in (Berthold, W. & Lim, L.) 517–527

Brain, rat, developing, relationships between nuclei and cytoplasm in the metabolism of high-molecular-weight species of ribonucleic acid in (Berthold, W. & Lim, L.) 529–539

Brain, rat, preparation and properties of mitochondria derived from synaptosomes from (Lai, J. C. K. & Clark, J. B.) 423–432

Brush borders, small-intestinal and kidney, rat, antiprot of sodium ions and protons in membrane vesicles isolated from (Murer, H., Hopfer, U. & Kinne, R.) 597–604

Buccinum undatum, see Whelk

Calcium, exchangeable and total, pools of, in mitochondria of rat epididymal fat-pads and isolated fat-cells and their role in the regulation of the activity of pyruvate dehydrogenase (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223

Calcium ions, effects of adenosine diphosphate and, on the activity of nicotinamide-adenine dinucleotide-linked isocitrate dehydrogenases from whelk radular muscle and insect flight muscle (Zammit, V. A. & Newsholme, E. A.) 697–687

Carbamoylcholine, stimulation by, and other muscarinic cholineric agents of the turnover of phosphatidyl-inositol in guinea-pig ileum longitudinal smooth muscle (Jafferji, S. S. & Michell, R. H.) 653–657

Carbamoyl phosphate synthase, regulation of the activity of, in rat liver mitochondria (McGivan, J. D., Bradford, N. M. & Mendes-Mourão, J.) 415–421

Castor bean, see Bean, castor

Cell differentiation, binding of concanavalin A and its effect on, of Dictyostelium discoideum (Darmon, M. & Klein, C.) 743–750

1976
INDEX OF SUBJECTS

Cortisol, interactions of insulin, prolactin and, in controlling the turnover of fatty acid synthetase in rabbit mammary gland in organ culture (Speake, B. K., Dils, R. & Mayer, R. J.) 359-370

Cortisol, roles of phenylalanine and, in regulating the activity of rat liver phenylalanine hydroxylase (Greenard, O. & DelValle, J. A.) 619-624

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

Cyclic nucleotide phosphodiesterase, binding of concanavalin A and its effect on the production of, and cell differentiation in Dictyostelium discoideum (Darmon, M. & Klein, C.) 743-750

Cysteine, transport of, and other amino acids in normal and glutathione-deficient sheep erythrocytes (Young, J. D., Ellory, J. C. & Tucker, E. M.) 43-48

Cytochrome c, Saccharomyces cerevisiae, stopped-flow dual-wavelength spectrophotometer suitable for the study of the oxidation of, and other respiratory-chain systems (Garland, P. B., Littleford, S. J. & Haddock, B. A.) 277-284

Cytochrome P-450, microsomal, liver, rat, acute effects of the administration of growth hormone on the concentration of, and on the activities of mixed-function oxidases (Wilson, J. T. & Spelsberg, T. C.) 433-438

Cytochrome P-450, microsomal, liver, rat, depletion of, by cobalt and other metal ions (Maines, M. D. & Kappas, A.) 125-131

Cytochrome reductase, reduced nicotinamide-adenine dinucleotide phosphate-specific, microsomal, liver, rat, interactions of some acceptors with superoxide ion radicals formed by (Mishin, V., Pokrovsky, A. & Lyakhovich, V. V.) 307-310

Cytochromes, membrane-bound, Escherichia coli, use of a stopped-flow dual-wavelength spectrophotometer for the kinetic characterization of, of organisms grown under a variety of conditions (Haddock, B. A., Downie, J. A. & Garland, P. B.) 285-294

Cytoplasm, Müllerian-duct, chick-embryo, developing, translocation of oestrogen-binding protein from, into the nuclei after the administration of oestradiol-17β (Teng, C. S. & Teng, C. T.) 1-9

Cytosol, brain, rat, relationships between, and nuclei in the metabolism of high-molecular-weight species of ribonucleic acid during postnatal development (Berthold W. & Lim, L.) 529-539

Cytosol, liver, rat, properties of proteins from, involved in the facilitated transport of messenger ribonucleic acid from rat liver nuclei (Yannarell, A., Schumm, D. E. & Webb, T. E.) 379-385

Deoxyctytidine monophosphate, transport of deoxycytidine and the metabolism of thymidine monophosphate and, in phytohaemagglutinin-stimulated pig lymphocytes (Barlow, S. D.) 395-403

Deoxyctytidine, transport of, and the metabolism of pyrimidine deoxyribonucleotides in phytohaemagglutinin-stimulated pig lymphocytes (Barlow, S. D.) 395-403

Deoxyribonucleic acid, activity of polyadenosine diphosphate ribose polymerase and the concentration of oxidized nicotinamide-adenine dinucleotide and their relevance to the biosynthesis of, in differentiating rat heart muscle (Claycomb, W. C.) 387-393

Deoxyribonucleic acid, biosynthesis of, during the life-span of the mosquito (Mills, B. J. & Lang, C. A.) 481-490

Deoxyribonucleic acid, characterization of a replication intermediate in the biosynthesis of, in the mosquito during larval and post-larval development (Kao, P. C., Beyer, C. F. & Lang, C. A.) 417-480

Deoxyribonucleic acid, chromatin, nuclear, rat, acute effects of the administration of growth hormone on the activity of rat liver ribonucleic acid polymerase and on the template capacity of (Spelsberg, T. C. & Wilson, J. T.) 439-448

Deoxyribonucleic acid, folded, Escherichia coli D10, attachment of, to membranes (Dworky, P.) 239-241

Development, foetal, pathways for the biosynthesis of lipids in guinea-pig liver and adipose tissue in vivo (Jones, C. T. & Firmin, W.) 159-161

Development, foetal, pathways for the biosynthesis of lipids in guinea-pig liver slices taken during (Jones, C. T. & Ashton, I. K.) 149-158

Development, larval and post-larval, biosynthesis of deoxyribonucleic acid in the mosquito during (Mills, B. J. & Lang, C. A.) 481-490

Development, larval and post-larval, characterization of a replication intermediate in the biosynthesis of deoxyribonucleic acid in the mosquito during (Kao, P. C., Beyer, C. F. & Lang, C. A.) 471-480

Development, neonatal and postnatal, changes in the activities of enzymes involved in the oxidation of fatty acids in rat liver during (Foster, P. C. & Bailey, E.) 49-56


Development, postnatal, activity of 3'-hydroxy-3-methyl-glutarlyl-coenzyme A reductase in rat brain during (Sudjic, M. M. & Booth, R.) 559-560

Development, postnatal, activity of poly(adenosine diphosphate ribose) polymerase and the concentration of oxidized nicotinamide-adenine dinucleotide in rat heart muscle during (Claycomb, W. C.) 387-393

Development, postnatal, effects of hyperphenylalaninaemia on the biosynthesis of lipids from ketone bodies in rat brain during (Patel, M. S. & Owen, O. E.) 319-325

Development, postnatal, metabolism of high-molecular-weight species of ribonucleic acid in rat brain during (Berthold, W. & Lim, L.) 517-527

Development, postnatal, regulation of the activity of liver and kidney phenylalanine hydroxylase and the maintenance of high concentrations of phenylalanine in plasma during, in the rat (DelValle, J. A. & Greenard, G.) 613-618

Development, postnatal, relationships between nuclei and cytoplasm in the metabolism of high-molecular-weight species of ribonucleic acid in rat brain during (Berthold, W. & Lim, L.) 529-539

Diabetes, alloxan, effects of starvation, high-fat diet and, on the regulation of the activities of pyruvate dehydrogenase and pyruvate dehydrogenase phosphate phosphatase in rat epididymal fat-pads (Stansbie, D., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225-236

1976
Diabetes, alloxa-n-, roles of coenzyme A, acetyl-coenzyme A and reduced and oxidized nicotinamide-adenine dinucleotide in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of pyruvate dehydrogenase by the oxidation of fatty acids and ketone bodies and the effects of, in perfused rat heart (Kerhey, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 327–348
Diaphragm muscle, rat, formation of alanine from other amino acids in (Goldstein, L. & Newsholme, E. A.) 555–558
Diaphragm, rat, isolated, effects of ketone bodies on the metabolism of amino acids in (Palaiologos, G. & Felig, P.) 709–716
Dictyostelium discoideum, binding of concanavalin A and its effect on the differentiation of (Darmon, M. & Klein, C.) 743–750
Diet, high-fat, effects of alloxa-n-diabetes, starvation and, on the regulation of activities of pyruvate dehydrogenase and pyruvate dehydrogenase phosphate phosphatase in rat epididymal fat-pads (Stansbie, D., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225–236
Diet, regulation of the activity of rat liver mitochondrial carbamoyl phosphate synthase by the protein content of (McGivan, J. D., Bradford, N. M. & Mendes-Mourão, J.) 415–421
Differentiation, cell, binding of concanavalin A and its effect on, of Dictyostelium discoideum (Darmon, M. & Klein, C.) 743–750
N⁰,N⁰-Dimethylarginine, catabolism of N⁰-methylarginine, N⁰,N⁰-dimethylarginine and, in the rabbit (McDermott, J. R.) 179–184
Disulphides, effects of, on the inactivation of phosphoenolpyruvate carboxykinase (guanosine triphosphate) by rat liver extracts (Ballard, F. J. & Hopgood, M. F.) 717–724
Drosophila melanogaster larvae, activities of ornithine decarboxylase and S-adenosylmethionine decarboxylase involved in the biosynthesis of polyamines in (Byus, C. V. & Herbst, E. J.) 31–23
Drosophila melanogaster larvae, effects of polyamines on the biosynthesis of ribonucleic acid in (Byus, C. V. & Herbst, E. J.) 23–29
Drugs, acute effects of the administration of growth hormone on the activities of rat liver microsomal mixed-function oxidases involved in the metabolism of (Wilson, J. T. & Spelsberg, T. C.) 433–438
Ehrlich ascites-tumour cells, transport of L-lactate in (Spencer, T. L. & Lehninger, A. L.) 405–414
Electrical impulses, evidence for a role for noradrenaline and adenosine 3':5'cyclic monophosphate in the increased phosphorylation of proteins in respiring guineapig cerebral-cortex slices observed on the application of (Williams, M. & Rodnight, R.) 163–170
Endoplasmic reticulum, see Reticulum, endoplasmic
Endosperm, castor-bean, cellular origin of glyoxysomal proteins of, during germination (Bowden, L. & Lord, J. M.) 501–506
Endosperm, castor-bean-seeding, development and properties of fructose 1,6-diphosphatase in (Youle, R. J. & Huang, A.H.C) 647–652
Endosperm, castor-bean, similarities in the composition of polypeptides of glyoxysomal and endoplasmic-reticulum membranes from (Bowden, L. & Lord, J. M.) 491–499
Energy, coupling of, to the active transport of proline and glutamine in anaerobically grown mutants of Escherichia coli K11 (Gutowski, S. J. & Rosenberg, H.) 731–734
Energy, dependence on respiration linked to, of the efflux of magnesium ions from rat heart mitochondria (Crompton, M., Capano, M. & Carafoli, E.) 735–742
Epithidymis, rat, effects of starvation, alloxa-n-diabetes and high-fat diet on the regulation of the activities of pyruvate dehydrogenase and pyruvate dehydrogenase-phosphatase in rats (Stansbie, D., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225–236
Epithidymis, rat, insulin-like actions of nickel and other transition-metal ions in fat-cells isolated from (Saggerson, E. D., Sooranna, S. R. & Evans, C. J.) 349–357
Epithidymis, rat, pools of exchangeable and total calcium in mitochondria of fat-pads and of fat-cells isolated from, and their role in the regulation of the activity of pyruvate dehydrogenase (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223
Epithidymis, rat, rapid immunological procedure for the isolation of hormonally sensitive fat-cell plasma membranes from (Luzio, J. P., Newby, A. C. & Hales, C. N.) 11–21
Epinephrine, see Adrenaline
Erythrocytes, minimal comprehensive model describing steady states, quasi-steady states and time-dependent processes involved in the regulation of glycolysis in (Rapoport, T. A., Heinrich, R. & Rapero, S. M.) 449–469
Erythrocytes, ox, sheep and cat, action of Staphylococcus aureus and pig lymphocyte phosphatidylinositol-specific phospholipases C on (Low, M. G. & Finean, J. B.) 203–208
Erythrocytes, sheep, normal and glutathione-deficient, transport of amino acids in (Young, J. D., Ellory, J. C. & Tucker, E. M.) 43–48
Escherichia coli, accumulation of 47S ribonucleoprotein particles as an unusual precursor of 50S ribosomes in a mutant strain of (Markey, F. & Wild, D. G.) 311–318
Escherichia coli D10, attachment of folded chromosomes to membranes of (Dworsky, P.) 239–241
Escherichia coli K12, coupling of energy to the active transport of proline and glutamine in anaerobically grown mutants of (Gutowski, S. J. & Rosenberg, H.) 731–734
Escherichia coli, turnover as a control of the accumulation of ribonucleic acids in, undergoing stepdown (Midgley, J. E. M.) 541–552
Escherichia coli, use of a stopped-flow dual-wavelength spectrophotometer for the kinetic characterization of the membrane-bound cytochromes of, grown under a variety of conditions (Haddock, B. A., Downie, J. A. & Garland, P. B.) 285–294
Estradiol, see Oestradiol

Vol. 154
INDEX OF SUBJECTS

Estrogens, see Oestrogens

Fat-cells, epididymal, rat, isolated, insulin-like actions of nickel and other transition-metal ions in (Saggerson, E. D., Sooranna, S. R. & Evans, C. J.) 349–357

Fat-cells, epididymal, rat, pools of exchangeable and total calcium in mitochondria of, and their role in the regulation of the activity of pyruvate dehydrogenase (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223

Fat-cells, epididymal, rat, rapid immunological procedure for the isolation of hormonally sensitive plasma membranes from (Luzio, J. P., Newby, A. C. & Hales, C. N.) 11–21

Fatty acid synthetase, interactions of insulin, prolactin and cortisol in controlling the turnover of, in rabbit mammary gland in organ culture (Speake, B. K., Dils, R. & Mayer, R. J.) 359–370

Fatty acids, changes in the activities of enzymes involved in the oxidation of, in rat liver during development (Foster, P. C. & Bailey, E.) 49–56

Fatty acids, incorporation of, and of derivatives of glucose into the phospholipids of subsynaptosomal fractions of guinea-pig cerebral cortex (Baker, R. R., Dowdall, M. J. & Whittaker, V. P.) 65–75

Fatty acids, roles of coenzyme A, acetyl-coenzyme A and reduced and oxidized nicotinamide-adenine dinucleotide in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of pyruvate dehydrogenase by the oxidation of ketone bodies and, and the effects of alloxan-diabetes in perfused rat heart (Kerbey, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 327–348

Fatty acids, short-chain, biosynthesis of lipids from, in foetal guinea-pig liver in vivo (Jones, C. T. & Firmin, W.) 159–161


Fatty acids, stimulation by nickel and other transition-metal ions of the biosynthesis of glyceroles and, in isolated rat epididymal fat-cells (Saggerson, E. D., Sooranna, S. R. & Evans, C. J.) 349–357

Flight muscle, see Muscle, flight

Fructose 1,6-diphosphatase, endosperm, castor-bean seedling, development and properties of (Youle, R. J. & Huang, A. H. C.) 647–652

Fruitfly (Drosophila melanogaster) larvae, activities of ornithine decarboxylase and S-adenosylmethionine decarboxylase involved in the biosynthesis of polyamines in (Byus, C. V. & Herbst, E. J.) 31–33

Fruitfly (Drosophila melanogaster) larvae, effects of polyamines on the biosynthesis of ribonucleic acid in (Byus, C. V. & Herbst, E. J.) 23–29

Galactose, metabolism of, in regenerating rat liver (Bauer, C. H., Hassels, B. F. & Reutter, W. G.) 141–147

Genes, role of oxygen in the regulation of growth rate and the activity of, in cultured chick-embryo heart cells (Clo', C., Orlandini, G. C., Guarnieri, C. & Caldarera, C. M.) 253–256

Germination, cellular origin of glyoxysomal proteins in castor-bean endosperm during (Bowden, L. & Lord, J. M.) 501–506

Germination, development and properties of castor-bean seedling endosperm fructose 1,6-diphosphatase during (Youle, R. J. & Huang, A. H. C.) 647–652

Glucocorticoid receptors, liver and kidney, identification and properties of rat kidney mineralocorticoid receptors in relation to (Agarwal, M. K.) 567–575

Glucokinase, Golgi-apparatus, liver, rat, topographical location and unique nature of (Berthillier, G., Coleman, R. & Walker, D. G.) 193–201

Glucuronolactone, regulation of the transport of glucose, 2-oxoglucuronate and, and of the catabolism of glucose in Pseudomonas aeruginosa (Whiting, P. H., Midgley, M. & Dawes, E. A.) 659–668

Gluconeogenesis, development and properties of castor-bean seedling endosperm fructose 1,6-diphosphatase and their relevance to (Youle, R. J. & Huang, A. H. C.) 647–652

Glucosamine, effect of N-acetyl derivatives of, on the biosynthesis and secretion of insulin by perfused rat islets of Langerhans (Ashcroft, S. J. H., Crossley, J. R. & Crossley, P. C.) 701–707

Glucose, biosynthesis of lipids from, in foetal guinea-pig adipose tissue in vivo (Jones, C. T. & Firmin, W.) 159–161

Glucose, distribution of membranes, especially of fragments of plasma membrane, during zonal centrifugation (Nurminen, T., Taskinen, L. & Suomalainen, H.) 751–763

Glucose, effects of heart work and insulin on the incorporation of, into hexose phosphates, uridine diphosphate glucose and glucogen in the normal and insulin-deficient perfused rat heart under working and non-working conditions (Das, I. & Chain, E.) 765–772

Glucose, incorporation of fatty acids and of derivatives of, into the phospholipids of subsynaptosomal fractions of guinea-pig cerebral cortex (Baker, R. R., Dowdall, M. J. & Whittaker, V. P.) 65–75

Glucose, regulation of the transport of glucose, gluconate and 2-oxoglucuronate and of the catabolism of, in Pseudomonas aeruginosa (Whiting, P. H., Midgley, M. & Dawes, E. A.) 659–668

Glucose, topographical location and unique nature of a glucokinase associated with rat liver Golgi apparatus and its relevance to the biosynthesis of uridine diphosphate glucose from (Berthillier, G., Coleman, R. & Walker, D. G.) 193–201

β-Glucuronidase, role of, in the metabolism of heparin by mouse neoplastic mast cells (Ogren, S. & Lindahl, U.) 605–611

Glucuronosyltransferase, role of, in the metabolism of heparin by mouse neoplastic mast cells (Ogren, S. & Lindahl, U.) 605–611

Glutamine, metabolism of, in regenerating rat liver (Bauer, C. H., Hassels, B. F. & Reutter, W. G.) 141–147

Glutathione, reduced, stimulation by, of the activity of the rabbit kidney-medulla prostaglandin synthase system (Tai, H. -H., Tai, C. L. & Hollander, C. S.) 257–264
Glutathione, reduced, transport of amino acids in normal sheep erythrocytes and in sheep erythrocytes deficient in (Young, J. D., Ellory, J. C. & Tucker, E. M.) 43-48
Glycerides, stimulation by nickel and other transition-metal ions of the biosynthesis of fatty acids and, in isolated rat epididymal fat-cells (Saggers, E. D., Sooranna, S. R. & Evans, C. J.) 349-357
Glycine, effects of proton gradients and uncoupling agents on the uptake of, by Saccharomyces carlsbergensis N.C.Y.C. 74 depleted of adenosine triphosphate (Seaston, A., Carr, G. & Eddy, A. A.) 669-676
Glycogen, effects of heart work and insulin on the incorporation of glucose into hexose phosphates, uridine diphosphate glucose and, in the normal and insulin-deficient perfused rat heart under working and non-working conditions (Das, I. & Chain, E.) 765-772
Glycolysis, minimal comprehensive model describing steady states, quasi-steady states and time-dependent processes involved in the regulation of, in erythrocytes (Rapoport, T. A., Heinrich, R. & Rapoport, S. M.) 449-469
Glycoproteins, bile, rat and mouse, comparison of, and other components with those of liver bile-canaliculare plasma membranes (Evans, W. H., Kremmer, T. & Culvenor, J. G.) 589-595
Glycoproteins, plasma-membrane, neuroblastaoma-cell, biosynthesis and turnover of, and proteins (Mathews, R. A., Johnson, T. C. & Hudson, J. E.) 57-64
Glyoxysomes, castor-bean-endosperm, cellular origin of, during germination (Bowden, L. & Lord, J. M.) 501-506
Glyoxysomes, castor-bean-endosperm, similarities in the composition of polypeptides of membranes of, and endoplasmic reticulum (Bowden, L. & Lord, J. M.) 491-499
Golgi apparatus, liver, rat, topographical location and unique nature of a glucokinase associated with (Bertilier, G., Coleman, R. & Walker, D. G.) 193-201
Golgi apparatus, mammary-gland, rat, evidence for the specific transport of uridine diphosphate glucose across the membrane of (Kuhn, N. J. & White, A.) 243-244
Growth hormone, acute effects of the administration of, on the activities of rat liver microsomal mixed-function oxidases (Wilson, J. T. & Spelsberg, T. C.) 433-438
Growth hormone, acute effects of the administration of, on the activity of rat liver nuclear ribonucleopoly- merase and on the template capacity of rat liver chromatin (Spelsberg, T. C. & Wilson, J. T.) 439-448
Growth, role of oxygen in the regulation of the rate of, and gene activity in cultured chick-embryo heart cells (Clo', C., Orlandini, G. C., Guarneri, C. & Caldarrera, C. M.) 253-256
Heart cells, chick-embryo, cultured, role of oxygen in the regulation of growth rate and gene activity in (Clo', C., Orlandini, G. C., Guarneri, C. & Caldarrera, C. M.) 253-256
Heart muscle, rat, differentiating, activity of poly(adenosine diphosphate ribose) polymerase and the concentration of oxidized nicotinamide-adenine dinucleotide in (Claycomb, W. C.) 387-393
Heart, ox, structure and subunit composition of the particulate reduced nicotinamide-adenine dinucleotide dehydrogenase of mitochondria from (Ragan, C. I.) 295-305
Heart, rat, perfused, normal and insulin-deficient, effects of heart work and insulin on the incorporation of glucose into hexose phosphates, uridine diphosphate glucose and glycogen in, under working and non-working conditions (Das, I. & Chain, E.) 765-772
Heart, rat, perfused, roles of coenzyme A, acetyl-coenzyme A and reduced and oxidized nicotinamide-adenine dinucleotide in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of pyruvate dehydrogenase by the oxidation of fatty acids and ketone bodies and the effects of alloxan-diabetes in (Karbey, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 327-348
Heart, rat, respiration-dependent efflux of magnesium ions from mitochondria isolated from (Crompton, M., Capano, M. & Carafoli, E.) 735-742
Heparin, metabolism of, in mouse neoplastic mast cells (Obren, S. & Lindahl, U.) 605-611
Hepatocotomy, partial, metabolism of galactose in rat liver regenerating after (Bauer, C. H., Hassels, B. F. & Reutter, W. G.) 141-147
Hexose phosphates, effects of heart work and insulin on the incorporation of glucose into uridine diphosphate glucose and, in the normal and insulin-deficient perfused rat heart under working and non-working conditions (Das, I. & Chain, E.) 765-772
Histamine, stimulation by noradrenaline, 5-hydroxytryptamine and, of the phosphorylation of proteins in respiring guinea-pig cerebral-cortex slices (Williams, M. & Rodnight, R.) 163-170
Hydrocortisone, see Cortisol
Hydrogen ions, antiprot of sodium ions and, in brush-border-membrane vesicles isolated from rat small intestine and kidney (Murer, H., Hopfer, U. & Kinne, R.) 597-604
Hydrogen ions, effects of uncoupling agents and of concentration gradients of, on the uptake of glycine by Saccharomyces carlsbergensis N.C.Y.C. 74 depleted of adenosine triphosphate (Seaston, A., Carr, G. & Eddy, A. A.) 669-676
3-Hydroxybutyrate, effects of acetocacetate and, on the metabolism of amino acids in isolated rat diaphragm (Palaioiologos, G. & Felig, P.) 709-716
3-Hydroxybutyrate, effects of hyperphenylalaninaemia on the biosynthesis of lipids from acetocacetate and, in developing rat brain (Patel, S. N., & Owen, O.) 319-325
3-Hydroxybutyrate, influence of adenosine nucleotides and, and other oxidizable substrates on the triethylthiimidemediated uptake of chloride ions by rat liver mitochondria in media containing potassium chloride (Skillet, D. N.) 271-276

Haem oxygenase, microsomal, liver, rat, studies on the mechanism of the induction by cobalt and other metal ions on the induction of the activity of (Maines, M. D. & Kappas, A.) 125-131
Haemoglobin, regulation by steroids related to 5β androstane of the biosynthesis of, in cultured chick-embryo blastoderm (Irving, R. A., Mainwaring, W. I. P. & Spooner, P. M.) 81-93

Vol. 154
INDEX OF SUBJECTS


3-Hydroxy-3-methyl-coenzyme A reductase, microsomal, liver, rat, role of, in the stimulation by the administration of compounds related to adenosine of the biosynthesis of sterols (Rao, G. S., George, R. & Rama-sarma, T.) 639–645

3-Hydroxy-3-methylglutaryl-coenzyme A reductase, activity of, in developing and adult rat brain (Sudijic, M. M. & Booth, R.) 559–560

3-Hydroxy-2,4,5-trihydroxymethylpyridine, conversion of into pyridoxine by the yeast Kloeckera apiculata N.C.Y.C. 245 (Scott, T. A. & Picton, C.) 35–41

5-Hydroxytryptamine, stimulation by noradrenaline, histamine and, of the phosphorylation of proteins in respiring guinea-pig cerebral-cortex slices (Williams, M. & Rodnight, R.) 163–170

Hyperphenylalaninaemia, effects of, on the biosynthesis of lipids from ketone bodies in developing rat brain (Patel, M. S. & Owen, O. E.) 319–325

Ileum, guinea-pig, muscarinic cholinergic stimulation of the turnover of phosphatidylinositol in the longitudinal smooth muscle of (Jafferji, S. S. & Michell, R. H.) 653–657

Insulin, actions of nickel and other transition-metal ions similar to those of, in isolated rat epididymal fat-cells (Saggerson, E. D., Sooranna, S. R. & Evans, C. J.) 349–357

Insulin, effects of heart work and, on the incorporation of glucose into exopeptideoxes, uridine diphosphate glucose and glycogen in normal and insulin-deficient perfused rat heart under working and non-working conditions (Das, I. & Chain, E.) 765–772

Insulin, effect of α-acetylglucosamines on the biosynthesis and secretion of, by perfused rat islets of Langerhans (Ashcroft, S. J. H., Crossley, J. R. & Crossley, P. C.) 701–707

Insulin, evidence for decreased inducibility by, of the activity of tyrosine aminotransferase in rabbit placenta as a function of gestational age (Wade, R. S. & Gusscke, D. J.) 245–247

Insulin, interactions of prolactin, cortisol and, in controlling the turnover of fatty acid synthetase in rabbit mammary gland in organ culture (Speake, B. K., Dils, R. & Mayer, R. J.) 359–370

Intestine, small, guinea-pig, muscarinic cholinergic stimulation of the turnover of phosphatidylinositol in the longitudinal smooth muscle of (Jafferji, S. S. & Michell, R. H.) 653–657

Intestine, small, rat, antiport of sodium ions and protons in brush-border-membrane vesicles isolated from, and kidney (Murer, H., Hopfer, U. & Kinne, R.) 597–604

Islets of Langerhans, pancreas, rat, perfused, effect of N-acetylglucosamines on the biosynthesis and secretion of insulin by (Ashcroft, S. J. H., Crossley, J. R. & Crossley, P. C.) 701–707

Isoxazole dehydrogenases, nicotinamide–adenine dinucleotide-linked, muscle, invertebrate, effects of calcium ions and adenosine diphosphate on the activity of (Zammit, V. A. & Newsholme, E. A.) 677–687

Isocitrate dehydrogenases, nicotinamide–adenine dinucleotide-linked, muscle, invertebrate, effects of calcium ions and adenosine diphosphate on the activity of (Zammit, V. A. & Newsholme, E. A.) 677–687

Ketone bodies, effect of hyperphenylalaninaemia on the biosynthesis of lipids from, in developing rat brain (Patel, M. S. & Owen, O. E.) 319–325

Ketone bodies, effects of, on the metabolism of amino acids in isolated rat diaphragm (Palaiologos, G. & Felig, P.) 709–716

Ketone bodies, roles of coenzyme A, acetyl-coenzyme A and reduced and oxidized nicotinamide–adenine dinucleotide in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of pyruvate dehydrogenase by the oxidation of fatty acids and, and the effects of alloxa-diabetes in perfused rat heart (Kerbey, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 327–348

Kidney cells, baby-hamster, cultured, variants of, resistant to castor-bean toxin (ricin) (Meager, A., Ungkitchanukit, A. & Hughes, R. C.) 113–124

Kidney cells, baby-hamster, normal and polyoma-virus-transformed, fluidity of the plasma membranes from (Micklem, K. J., Abra, R. M., Knutton, S., Graham, J. M. & Pasternak, C. A.) 561–566

Kidney cortex, rat, subcellular location of renin substrate in granules from (Morris, B. J. & Johnston, C. I.) 625–637

Kidney medulla, rabbit, properties of the prostaglandin synthase system from (Tai, H.-H., Tai, C. L. & Hollander, C. S.) 257–264

Kidney, rat, antiport of sodium ions and protons in brush-border-membrane vesicles isolated from, and small intestine (Murer, H., Hopfer, U. & Kinne, R.) 597–604

Kidney, rat, identification and properties of mineralocorticoid receptors in, in relation to glucocorticoid receptors in rat liver and kidney (Agarwal, M. K.) 567–575

Kidney, rat, regulation of the activity of phenylalanine hydroxylase in, and liver and the maintenance of high concentrations of phenylalanine in plasma during postnatal development (DelValle, J. A. & Greengard, O.) 613–618

Kloeckera apiculata N.C.Y.C. 245, conversion of 3-hydroxy-2,4,5-trihydroxymethylpyridine into pyridoxine by (Scott, T. A. & Picton, C.) 35–41

L-Lactate, transport of, in Ehrlich ascites-tumour cells (Spencer, T. L. & Lehninger, A. L.) 405–414

Lactation, evidence for the specific transport of uridine diphosphate glucose across rat mammary-gland Golgi-apparatus membrane during (Kuhn, N. J. & White, A.) 243–244

Leaves, spinach, localization of the inhibition by adenosine diphosphate of 3-phosphoglycerate-dependent evolution of oxygen in a reconstituted system of chloroplasts from (Slabas, A. R. & Walker, D. A.) 185–192

Leitichin, see Phosphatidilcholine

Lectins, variants of cultured baby-hamster kidney cells resistant to (Meager, A., Ungkitchanukit, A. & Hughes, R. C.) 113–124

1976
INDEX OF SUBJECTS

Lipids, effect of hyperphenylalaninaemia on the biosynthesis of, from ketone bodies in developing rat brain (Patel, M. S. & Owen, O. E.) 319–325

Lipids, insulin-like actions of nickel and other transition-metal ions on the metabolism of, in isolated rat epithidymal fat-cells (Sagerson, E. D., Sooranna, S. R. & Evans, C. J.) 349–357

Lipids, pathways for the biosynthesis of, in foetal guinea-pig liver slices (Jones, C. T. & Ashton, I. K.) 149–158

Lipids, pathways for the biosynthesis of, in maternal and foetal guinea-pig liver and adipose tissue in vivo (Jones, C. T. & Firmin, W.) 159–161

Lipogenesis, effect of hyperphenylalaninaemia on, from ketone bodies in developing rat brain (Patel, M. S. & Owen, O. E.) 319–325

Lipogenesis, pathways of, in foetal guinea-pig liver slices (Jones, C. T. & Ashton, I. K.) 149–158

Lipogenesis, pathways of, in maternal and foetal guinea-pig liver and adipose tissue in vivo (Jones, C. T. & Firmin, W.) 159–161

Liver, chick, biosynthesis of polyamines, ribonucleic acid and S-adenosylmethionine in, of normal and oestrogen-treated animals (Eloranta, T. O., Mäenpää, P. H. & Raina, A. M.) 95–103

Liver, guinea-pig, effects of depleting and restoring phospholipids on the activity of microsomal uridine diphosphate glucurononyltransferase from (Berry, C. S., Caldecourt, M. & Hallinan, T.) 783–785

Liver, guinea-pig, foetal, pathways for the biosynthesis of lipids in slices of (Jones, C. T. & Ashton, J. K.) 149–158

Liver, guinea-pig, maternal and foetal, pathways for the biosynthesis of lipids in, and adipose tissue in vivo (Jones, C. T. & Firmin, W.) 159–161

Liver, rat, action of Staphylococcus aureus and pig lymphocyte phosphatidylinositol-specific phospholipases C on microsomal membranes from (Low, M. G. & Finean, J. B.) 203–208

Liver, rat, acute effects of the administration of growth hormone on the activities of microsomal mixed-function oxidases in (Wilson, J. T. & Spelsberg, T. C.) 433–438

Liver, rat, acute effects of the administration of growth hormone on the activity of nuclear ribonucleic acid polymerase and on the template capacity of nuclear chromatin in (Spelsberg, T. C. & Wilson, J. T.) 439–448

Liver, rat and mouse, role of bile-canalicular plasma membranes from, in the formation of bile (Evans, W. H., Kremmer, T. & Culvenor, J. G.) 589–595

Liver, rat, changes in the activities of enzymes involved in the oxidation of fatty acids in, during development (Foster, P. C. & Bailey, E.) 49–56

Liver, rat, identification and properties of mineralocorticoid receptors in rat kidney in relation to glucocorticoid receptors in, and kidney (Agarwal, M. K.) 567–575

Liver, rat, inactivation of phosphoenolpyruvate carboxykinase (guanosine triphosphate) by extracts of (Ballard, F. J. & Hopgood, M. F.) 717–724

Liver, rat, influence of adenine nucleotides and oxidizable substrates on the 3,4-dihydroxyphenylalanine uptake of chloride ions by mitochondria from, in media containing potassium chloride (Skilleter, D. N.) 271–276

Liver, rat, interactions of some acceptors with superoxide ion radicals formed by reduced nicotinamide-adenine dinucleotide phosphate-cytochrome reductase in microsomal fractions from (Mishin, V., Pokrovsky, A. & Lyakhovich, V.) 307–310


Liver, rat, regulation of the activity of phenylalanine hydroxylase in, and kidney and the maintenance of high concentrations of phenylalanine in plasma during postnatal development (DelValle, J. A. & Greengard, O.) 613–618

Liver, rat, roles of substrate and cortisol in regulating the activity of phenylalanine hydroxylase in (Greengard, O. & DelValle, J. A.) 619–624

Liver, rat, stimulation by the administration of compounds related to adenosine of the biosynthesis of sterols in (Rao, G. S., George, R. & Ramasarma, T.) 639–645

Liver, rat, studies on the mechanism of the induction by cobalt and other metal ions of the induction of the activity of haem oxygenase in the microsomal fraction of (Maines, M. D. & Kappas, A.) 125–131

Liver, rat, subcellular distribution and activity of deoxyinosine-activated nucleotidase in, and other tissues (Tjernshaugen, H. & Fritzson, P.) 77–80

Liver, rat, topographical location and unique nature of a glucokinase associated with the Golgi apparatus of (Bertilhier, G., Coleman, R. & Walker, D. G.) 193–201

Luteotrophin, effects of, and other factors on the activity of protein kinase in rat testis interstitial tissue (Cooke, B. A. & van der Kemp, A. J. W. C. M.) 371–378

Lymphocytes, pig, action of phosphatidylinositol-specific phospholipases C from Staphylococcus aureus and, on membranes of ox, sheep and cat erythrocytes and of rat liver microsomal fraction (Low, M. G. & Finean, J. B.) 203–208

Lymphocytes, pig, phytohaemagglutinin-stimulated, transport of deoxythymidine and the metabolism of pyrimidine deoxyribonucleotides in (Barlow, S. D.) 395–403

Lysophosphatidylcholine, arteriovenous differences in the plasma concentrations of choline, phosphatidylcholine and, across rat and rabbit brain (Spanner, S., Hall, R. C. & Ansell, G. B.) 133–140

Magnesium ions, respiration-dependent efflux of, from rat heart mitochondria (Crompton, M., Capano, M. & Carafoli, E.) 735–742

Mammary gland, rabbit, interactions of insulin, prolactin and cortisol in controlling the turnover of fatty acid synthetase in, in organ culture (Speake, B. K., Dils, R. & Mayer, R. J.) 359–370

Vol. 154
Mammary gland, rat, evidence for the specific transport of uridine diphosphate glucose across the membrane of the Golgi apparatus of (Kuhn, N. J. & White, A.) 243–244

Mast cells, neoplastic, mouse, metabolism of heparin in (Ögren, S. & Lindahl, U.) 605–611

Mastocytes, cells, metabolism of heparin in (Ögren, S. & Lindahl, U.) 605–611

Membrane, Clostridium pasteurianum A.T.C.C. 6013, partial purification of a dicycloclyoxycarbodi-imide-sensitive adenosine triphosphatase complex from (Clarke, D. J. & Morris, J. G.) 725–729

Membrane, Golgi-apparatus, mammary-gland, rat, evidence for the specific transport of uridine diphosphate glucose across (Kuhn, N. J. & White, A.) 243–244

Membrane, plasma, Ehrlich-ascites-tumour-cell, transport of l-lactate across (Spencer, T. L. & Lehninger, A. L.) 405–414

Membrane, plasma, Saccharomyces cerevisiae, glucose-repressed, distribution of fragments of, during zonal centrifugation (Nurminen, T., Taskinen, L. & Suomalainen, H.) 751–763

Membrane vesicles, brush-border, small-intestinal and kidney, rat, antiport of sodium ions and protons in (Murur, H., Hopfer, U. & Kinne, R.) 597–604

Membranes, erythrocyte, ox, sheep and cat, action of Staphylococcus aureus and pig lymphocyte phosphatidylinositol-specific phospholipases C on (Low, M. G. & Finean, J. B.) 203–208

Membranes, Escherichia coli D10, attachment of folded chromosomes to (Dworky, P.) 239–241

Membranes, Escherichia coli, use of a stopped-flow dual-wavelength spectrophotometer for the kinetic characterization of cytochromes bound to, of organisms grown under a variety of conditions (Haddock, B. A., Downie, J. A. & Garland, P. B.) 285–294

Membranes, glyoxosomal and endoplasmic-reticulum, castor-bean-endosperm, biosynthesis of the proteins of, during germination (Bowden, L. & Lord, J. M.) 501–506

Membranes, glyoxosomal and endoplasmic-reticulum, castor-bean-endosperm, similarities in the composition of polypeptides of (Bowden, L. & Lord, J. M.) 491–499

Membranes, microsomal, liver, rat, action of Staphylococcus aureus and pig lymphocyte phosphatidylinositol-specific phospholipases C on (Low, M. G. & Finean, J. B.) 203–208

Membranes, microsomal, liver, rat, inactivation of phosphoenolpyruvate carboxykinase (guanosine triphosphate) by (Ballard, F. J. & Hopgood, M. F.) 717–724


Membranes, microsomal, liver, rat, studies on the mechanism of the induction by cobalt and other metal ions of the activity of haem oxygenase in (Maines, M. D. & Kappas, A.) 125–131

Membranes, microsomal fractions, liver, rat, interactions of some acceptors with superoxide ion radicals formed by reduced nicotinamide–adenine dinucleotide phosphate-cytochrome reductase in (Mishin, V., Pokrovsky, A. & Lyakhovich, V. I.) 307–310

Mineralocorticoid receptors, kidney, rat, identification and properties of, in relation to rat liver and kidney glucocorticoid receptors (Agarwal, M. K.) 567–575

Mitochondria, fat-cell, epididymal, pools of exchangeable and total calcium in, and their role in the regulation of the activity of pyruvate dehydrogenase (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223

Mitochondria, heart, ox, structure and subunit composition of the particulate reduced nicotinamide–adenine dinucleotide dehydrogenase of (Ragan, C. I.) 295–305
INDEX OF SUBJECTS

Mitochondria, heart, rat, respiration-dependent efflux of magnesium ions from (Crompton, M., Capano, M. & Carafoli, E.) 735-742
Mitochondria, liver, rat, changes in the activities of enzymes involved in the oxidation of fatty acids in, during development (Foster, P. C. & Bailey, E.) 49-56
Mitochondria, liver, rat, influence of adenine nucleotides and oxidizable substrates on the triethyltin-mediated uptake of chloride ions by, in media containing potassium chloride (Skilliter, D. N.) 271-276
Mitochondria, liver, rat, regulation of the activity of carbamoyl phosphate synthase in (McGivan, J. D., Bradford, M. N. & Mendes-Mourão, J.) 415-421
Mitochondria, synaptosomal, liver, and properties of (Lai, J. C. K. & Clark, J. B.) 423-432
Mixed-function (Aedes aegypti), biosynthesis of deoxyribonucleic acid during the life-span of (Mills, B. J. & Lang, C. A.) 481-490
Mosquito (Aedes aegypti), characterization of a replication intermediate in the biosynthesis of deoxyribonucleic acid in, during larval and post-larval development (Kao, P. C., Beyer, C. F. & Lang, C. A.) 471-480
Müllerian duct, chick-embryo, developing, translocation of oestrogen-binding protein from the cytoplasm into the nuclei of, after the administration of oestradiol-17β (Teng, C. S. & Teng, C. T.) 1-9
Muscle, diaphragm, rat, formation of alanine from other amino acids in (Goldstein, L. & Newsom, E. A.) 555-558
Muscle, flight, insect, effects of calcium ions and adenosine diphosphate on the activity of nicotinamide-adenine dinucleotide-linked isocitrate dehydrogenases from wheel radial muscle and (Zammit, V. A. & Newsom, E. A.) 677-687
Muscle, heart, rat, differentiating, activity of poly(adenosine diphosphate ribose) polymerase and the concentration of oxidized nicotinamide-adenine dinucleotide in (Claycomb, W. C.) 387-393
Muscle, radular, wheel, effects of calcium ions and adenosine diphosphate on the activity of nicotinamide-adenine dinucleotide-linked isocitrate dehydrogenases from insect flight muscle and (Zammit, V. A. & Newsom, E. A.) 677-687
Muscle, smooth, longitudinal, ileum, guinea-pig, muscarinic cholinergic stimulation of the turnover of phosphatidylinositol in (Jafferi, S. S. & Michell, R. H.) 653-657
Muscle, vertebrate and invertebrate, activities of citrate synthase and nicotinamide-adenine dinucleotide-linked and nicotinamide-adenine dinucleotide phosphate-linked isocitrate dehydrogenases in (Apl, P. R., Newsome, E. A. & Zammit, V. A.) 689-700
Myelin, brain, rat, developing and adult, accumulation and turnover of the classical Folch-Lees proteolipid proteins in (Agrawal, H. C., Fujimoto, K. & Burton, R. M.) 265-269
Neuroblastoma cells, N2a, cultured, biosynthesis and turnover of plasma-membrane proteins and glycoproteins in (Mathews, R. A., Johnson, T. C. & Hudson, J. E.) 57-64

Nickel ions, insulin-like actions of, and other transition-metal ions in isolated rat epididymal fat-cells (Saggerson, E. D., Sooranna, S. R. & Evans, C. J.) 349-357
Nicotinamide-adenine dinucleotide, oxidized, concentration of, and the activity of poly(adenosine diphosphate ribose) polymerase in differentiating rat heart muscle (Claycomb, W. C.) 387-393
Nicotinamide-adenine dinucleotide phosphate (reduced)–cytochrome reductase, microsomal, liver, rat, interactions of some acceptors with superoxide ion radicals formed by (Mishin, V., Pokrovsky, A. & Lyakhovich, V. V.) 307-310
Nicotinamide-adenine dinucleotide, reduced and oxidized, roles of coenzyme A, acetyl-coenzyme A and, in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of pyruvate dehydrogenase by the oxidation of fatty acids and ketone bodies and the effects of allofan-diabetes in perfused rat heart (Kerbey, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 335-348
Nicotinamide-adenine dinucleotide (reduced) dehydrogenase, mitochondrial, heart, ox, particulate, structure and subunit composition of (Ragan, C. J.) 295-305
Noradrenaline, evidence for a role for, and adenosine 3':5'-cyclic monophosphate in the increased phosphorylation of proteins in respiring guinea-pig cerebral cortex slices observed on the application of electrical pulses (Williams, M. & Rodnight, R.) 163-170
Nuclei, brain, rat, relationships between, and cytoplasm in the metabolism of high-molecular-weight species of ribonucleic acid during postnatal development (Bertold, W. & Lim, L.) 529-539
Nuclei, heart-muscle, rat, isolated, activity of poly(adenosine diphosphate ribose) polymerase in (Claycomb, W. C.) 387-393
Nuclei, liver, rat, acute effects of the administration of growth hormone on the activity of ribonucleic acid polymerase and on the template capacity of chromatin in (Spelsberg, T. C. & Wilson, J. T.) 439-448
Nuclei, Müllerian duct, chick-embryo, developing, translocation of oestrogen-binding protein into, from the cytoplasm after the administration of oestradiol-17β (Teng, C. S. & Teng, C. T.) 1-9
Nucleotidase, deoxyinosine-activated, subcellular distribution and activity of, in various rat tissues (Tjernhaugen, H. & Fritzon, P.) 77-80

Oestradiol-17β, biosynthesis of polyanines, ribonucleic acid and S-adenosylmethionine in liver of normal chicks and of chicks treated with (Eloranta, T. O., Mäenpää, P.H. & Raina, A.M.) 95-103
Oestradiol-17β, effect of vitamin A nutritional status on the growth of chick oviduct primed by (Joshi, P. S., Murthy, S. K. & Ganguly, J.) 249-251
Oestradiol-17β, translocation of oestrogen-binding protein from the cytoplasm into the nuclei of developing chick-embryo Müllerian duct after the administration of (Teng, C. S. & Teng, C. T.) 1-9

Vol. 154
Oestrogen-binding protein, translocation of, from the cytoplasm into the nuclei of developing chick-embryo Müllerian duct after the administration of oestradiol-17β (Teng, C. S. & Teng, C. T.) 1–9

Oestrogens, biosynthesis of polyamines, ribonucleic acid and S-adenosymethionine in liver of normal chicks and of chicks treated with (Eloranta, T. O., Mäenpää, P. H. & Raina, A. M.) 95–103

Oestrogens, effect of vitamin A nutritional status on the growth of chick oviduct primed by (Joshi, P. S., Murthy, S. K. & Ganguly, J.) 249–251

Ornithine decarboxylase, activities of S-adenosymethionine decarboxylase and, involved in the biosynthesis of polyamines in Drosophila melanogaster larvae (Byus, C. V. & Herbst, E. J.) 31–33

Oviduct, chick, effect of vitamin A nutritional status on the oestrogen-primed growth of (Joshi, P. S., Murthy, S. K. & Ganguly, J.) 249–251

Oxidases, mixed-function, microsomal, liver, rat, acute effects of the administration of growth hormone on the activities of (Wilson, J. T. & Spelsberg, T. C.) 433–438

Oxidative phosphorylation, see Phosphorylation, oxidative

2-Oxoglucunate, regulation of the transport of glucose, glucuronate and, and of the catabolism of glucose in Pseudomonas aeruginosa (Whiting, P. H., Midgley, M. & Dawes, E. A.) 659–668

Oxygen, localization of the inhibition by adenosine di-phosphate of 3-phosphoglycerate-dependent evolution of, in a reconstituted system of spinach-leaf chloroplasts (Slabas, A. R. & Walker, D. A.) 185–192

Oxygen, role of, in the regulation of growth rate and gene activity in cultured chick-embryo heart cells (Clo', C., Orlandini, G. C., Guarnieri, C. & Caldarera, C. M.) 253–256


Phenylalanine hydroxylase, liver and kidney, rat, regulation of the activity of, and the maintenance of high concentrations of phenylalanine in plasma during postnatal development (DelValle, J. A. & Greengard, O.) 613–618

Phenylalanine hydroxylase, liver, rat, roles of substrate and cortisol in regulating the activity of (Greengard, O. & DelValle, J. A.) 619–624

Phenylalanine, plasma, rat, regulation of liver and kidney phenylalanine hydroxylase activity and the maintenance of high concentrations of, during postnatal development (DelValle, J. A. & Greengard, O.) 613–618

Phenylalanine, roles of cortisol and, in regulating the activity of rat liver phenylalanine hydroxylase (Greengard, O. & DelValle, J. A.) 619–624

Phenyketonuria, effects of hyperphenylalaninaemia on the biosynthesis of lipids from ketone bodies in developing rat brain and their relevance to the condition of (Patel, M. S. & Owen, O. E.) 319–325

Phenyketonuria, regulation of the activity of rat liver and kidney phenylalanine hydroxylase and the maintenance of high concentrations of phenylalanine in plasma during postnatal development, and, its relevance to the study of (DelValle, J. A. & Greengard, O.) 613–618

Phosphatidylcholine, arteriovenous differences in the plasma concentrations of choline, lysophosphatidylcholine and, across rat and rabbit brain (Spanner, S., Hall, R. C. & Ansell, G. B.) 133–140

Phosphatidylcholine, usefulness of the phosphonium analogue of choline as a nuclear-magnetic-resonance probe for, in membranes (Sim, E. & Pasternak, C. A.) 105–111

Phosphatidylinositol, action of Staphylococcus aureus and pig lymphocyte phospholipases C specific for, on membranes of ox, sheep and cat erythrocytes and of rat liver microsomal fraction (Low, M. G. & Finean, J. B.) 203–208

Phosphatidylinositol, muscarinic cholinergic stimulation of the turnover of, in guinea-pig ileum longitudinal smooth muscle (Jafferji, S. S. & Michell, R. H.) 653–657

Phosphoenolpyruvate carboxykinase (guanosine triphosphate), inactivation of, by rat liver extracts (Ballard, F. J. & Hopgood, M. F.) 717–724

3-Phosphoglycerate, localization of the inhibition by adenosine diphosphate of the evolution of oxygen dependent on, in a reconstituted system of spinach-leaf chloroplasts (Slabas, A. R. & Walker, D. A.) 185–192

Phospholipases C, phosphatidylinositol-specific, action of, from Staphylococcus aureus and pig lymphocytes on membranes of ox, sheep and cat erythrocytes and of rat liver microsomal fraction (Low, M. G. & Finean, J. B.) 203–208

Phospholipids, content of cholesterol and, in plasma membranes from normal and polyoma-virus-transformed baby-hamster kidney cells (Micklem, K. J., Abra, R. M., Knutton, S., Graham, J. M. & Pasternak, C. A.) 561–566

Phospholipids, effects of depleting and restoring, on the activity of guinea-pig liver microsomal uridine diphosphate glucurononyltransferase (Berry, C. S., Caldecourt, M. & Hallinan, T.) 783–785

Phospholipids, incorporation of fatty acids and of derivatives of glucose into, of suberythropoietic fractions of guinea-pig cerebral cortex (Baker, R. R., Dowdall, M. J. & Wittaker, V. P.) 65–75

Phosphorylation, oxidative, effects of proton gradients and of agents uncoupling, on the uptake of glycine by Saccharomyces cerevisiae N.C.Y.C. 74 depleted of adenosine triphosphate (Seaston, A., Carr, G. & Eddy, A. A.) 669–676

Photosynthesis, localization of the inhibition by adenosine diphosphate of, by a reconstituted system of spinach-leaf chloroplasts (Slabas, A. R. & Walker, D. A.) 185–192

Phytohaemagglutinin, transport of deoxyoctidine and the metabolism of pyrimidine deoxyribonucleotides in pig lymphocytes stimulated by (Barlow, S. D.) 395–403

Placenta, rabbit, evidence for decreased inducibility by insulin or cortisol of the activity of tyrosine aminotransferase in, as a function of gestational age (Wade, R. S. & Gusseck, D. J.) 245–247

Plasma membrane, see Membrane, plasma

Plasma, rat and rabbit, arteriovenous differences in the concentrations of choline, phosphatidylcholine and lysophosphatidylcholine in, across the brain (Spanner, S., Hall, R. C. & Ansell, G. B.) 133–140
**INDEX OF SUBJECTS**

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plasma, rat, concentrations of N(^6)-methylarginine, N(^6), N(^\circ)-dimethylarginine and N(^6),N(^\circ)-dimethylarginine in, and other tissues (Mcderrmott, J. R.)</td>
<td>179–184</td>
</tr>
<tr>
<td>Plasma, rat, regulation of the activity of liver and kidney phenylalanine hydroxylase activity and the maintenance of high concentrations of phenylalanine in, during postnatal development (DelValle, J. A. &amp; Greengard, O.)</td>
<td>613–618</td>
</tr>
<tr>
<td>Poly(adenosine diphosphate ribose) polymerase, activity of, and the concentration of oxidized nicotinamide-adenine dinucleotide in differentiating rat heart muscle (Claycomb, W. C.)</td>
<td>387–393</td>
</tr>
<tr>
<td>Polyamines, activities of ornithine decarboxylase and S-adenosylmethionine decarboxylase involved in the biosynthesis of, in Drosophila melanogaster larvae (Byus, C. V. &amp; Herbst, E. J.)</td>
<td>31–33</td>
</tr>
<tr>
<td>Polyamines, biosynthesis of S-adenosylmethionine, ribonuclease acid and, in liver of normal and oestrogen-treated chicks (Elossz, T. O., Mäenpää, P. H. &amp; Raina, A. M.)</td>
<td>95–103</td>
</tr>
<tr>
<td>Polyamines, effects of, on the biosynthesis of ribonuclease acid in Drosophila melanogaster larvae (Byus, C. V. &amp; Herbst, E. J.)</td>
<td>23–29</td>
</tr>
<tr>
<td>Polyamines, role of oxygen in the regulation of the concentration of, in cultured chick-embryo heart cells (Clo, C., Orlandini, G. C., Guarneri, C. &amp; Caldarera, C. M.)</td>
<td>253–256</td>
</tr>
<tr>
<td>Polypeptides, membrane, glyoxysomal and endoplasmic reticulum, castor-bean-endosperm, similarities in the composition of (Bowden, L. &amp; Lord, J. M.)</td>
<td>491–499</td>
</tr>
<tr>
<td>Potassium chloride, influence of adenine nucleotides and oxidizable substrates on the triethyltin-mediated uptake of chloride ions by rat liver mitochondria in media containing (Skillett, D. N.)</td>
<td>271–276</td>
</tr>
<tr>
<td>Pregnancy, interactions of insulin, prolactin and cortisol in controlling the turnover of fatty acid synthetase in rabbit mammary gland during (Speake, B. K., Dils, R. &amp; Mayer, R. J.)</td>
<td>359–370</td>
</tr>
<tr>
<td>Prolactin, interactions of insulin, cortisol and, in controlling the turnover of fatty acid synthetase in rabbit mammary gland in organ culture (Speake, B. K., Dils, R. &amp; Mayer, R. J.)</td>
<td>359–370</td>
</tr>
<tr>
<td>Proline, coupling of energy to the active transport of glutamine and, in anaerobically grown mutants of Escherichia coli K12 (Gutowski, S. J. &amp; Rosenberg, H.)</td>
<td>731–734</td>
</tr>
<tr>
<td>Prostaglandins, biosynthesis of, properties of the rabbit kidney-medulla prostaglandin synthase system catalysing (Tai, H.-H., Tai, C. L. &amp; Hollandar, C. S.)</td>
<td>257–264</td>
</tr>
<tr>
<td>Protein, effects of ketone bodies on the catabolism of, in isolated rat diaphragm (Palaiologos, G. &amp; Felig, P.)</td>
<td>709–716</td>
</tr>
<tr>
<td>Protein, inhibition by trichodermin of the biosynthesis of, in rabbit reticulocyte lysates (Carter, C. J., Cannon, M. &amp; Smith, K. E.)</td>
<td>171–178</td>
</tr>
</tbody>
</table>

Vol. 154

Protein kinase, effects of luteotrophin and other factors on the activity of, in rat testis interstitial tissue (Cooke, B. A. & van der Kemp, A. J. W. C. M.) | 371–378 |

Protein, oestrogen-binding, translocation of, from the cytoplasm into the nuclei of developing chick-embryo Müllerian duct after the administration of oestradiol-17β (Teng, C. S. & Teng, C. T.) | 1–9 |

Protein, regulation of the activity of rat liver mitochondrial carbamoyl phosphate synthase by the dietary content of (McGivan, J. D., Bradford, N. M. & Mendes-Mourão, J.) | 415–421 |

Proteins, bile, rat and mouse, comparison of, and other components with those of liver bile-canalicullar plasma membranes (Evans, W. H., Kremmer, T. & Culvenor, J. G.) | 589–595 |


Proteins, evidence for a role for noradrenaline and adenosine 3':5'-cyclic monophosphate in the increased phosphorylation of, in respiring guinea-pig cerebral cortex slices observed on the application of electrical pulses (Williams, M. & Rodnight, R.) | 163–170 |

Proteins, glyoxyosomal, castor-bean-endosperm, cellular origin of, during germination (Bowden, L. & Lord, J. M.) | 501–506 |

Proteins, plasma-membrane, neuroblastoma-cell, biosynthesis and turnover of, and glycoproteins (Mathews, R. A., Johnson, T. C. & Hudson, J. E.) | 57–64 |


Proteins, ribosomal, turnover of, as a control of the maturation of ribosomes in Escherichia coli undergoing step-down (Midgley, J. E. M.) | 541–552 |


Protons, antipor of sodium ions and, in brush-border-membrane vesicles isolated from rat small intestine and kidney (Murer, H., Hopfer, U. & Kinne, R.) | 597–604 |

Protons, effects of uncoupling agents and of concentration gradients of, on the uptake of glycine by Saccharomyces carlsbergensis N.C.Y.C. 74 depleted of adenosine triphosphate (Seaston, A., Carr, G. & Eddy, A. A.) | 669–676 |

Pseudomonas aeruginosaa, regulation of the transport of glucose, gluconate and 2-oxoglutarate and of the catabolism of glucose in (Whiting, P. H., Midgley, M. & Dawes, E. A.) | 569–568 |

Pyridoxine, conversion of 3-hydroxy-2,4,5-trihydroxy-methylpyridine into, by the yeast Klöoeckera apiculata N.C.Y.C. 245 (Scott, T. A. & Picton, C.) | 35–41 |

Pyrimidines deoxyribo nucleotides, transport of deoxyribo nucleotide and the metabolism of, in phytohaemagglutinin-stimulated pig lymphocytes (Barlow, S. D.) | 395–403 |

Pyruvate, conversion of amino acids into alanine via, in rat diaphragm muscle (Goldstein, L & Newsholme, E. A.) | 555–558 |
Pyruvate dehydrogenase, adipose-tissue, epididymal, rat, effects of starvation, alloxan-diabetes and high-fat diet on the regulation of the activities of, and pyruvate dehydrogenase phosphate phosphatase (Stansbie, D., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225–236

Pyruvate dehydrogenase, mitochondrial, adipose-tissue, epididymal, rat, role of pools of exchangeable and total calcium in the regulation of the activity of (Severson, D. L., Denton, R. M., Bridges, B. J. & Randle, P. J.) 209–223

Pyruvate dehydrogenase phosphate phosphatase, adipose-tissue, epididymal, rat, effects of starvation, alloxan-diabetes and high-fat diet on the regulation of the activities of, and pyruvate dehydrogenase (Stansbie, D., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225–236

Pyruvate dehydrogenase, roles of coenzyme A, acetylcoenzyme A and reduced and oxidized nicotinamide-adenine dinucleotide in the regulation of the proportions of the dephosphorylated (active) and phosphorylated (inactive) forms of, by the oxidation of fatty acids and ketone bodies and the effects of alloxan-diabetes in perfused rat heart (Kerbey, A. L., Randle, P. J., Cooper, R. H., Whitehouse, S., Pask, H. T. & Denton, R. M.) 327–348

Pyruvate, influence of adenine nucleotides and, and other oxidizable substrates on the triethylthiin-mediated uptake of chloride ions by rat liver mitochondria in media containing potassium chloride (Skilleter, D. N.) 271–276

Red blood cells, see Erythrocytes

Renin substrate, kidney-cortex, rat, subcellular location of, in granules (Morris, B. J. & Johnston, C. I.) 625–637

Respiration, energy-linked, dependence on, of the efflux of magnesium ions from rat heart mitochondria (Crompton, M., Capano, M. & Carafoli, E.) 735–742

Reticulocytes, rabbit, inhibition by trichodermrin of the biosynthesis of protein in lysates of (Carter, C. J., Cannon, M. & Smith, K. E.) 171–178

Reticulum, endoplasmic, castor-bean-endosperm, role of, in the biosynthesis of glyoxysomal proteins during germination (Bowden, L. & Lord, J. M.) 501–506

Reticulum, endoplasmic, castor-bean-endosperm, similarities in the composition of polypeptides of membranes of, and glyoxysomes (Bowden, L. & Lord, J. M.) 491–499

Retinyl acetate, effect of supplementation with, on the oestrogen-primed growth of chick oviduct during vitamin A deficiency (Joshi, P. S., Murthy, S. K. & Ganguly, J.) 249–251

Ribonucleic acid, biosynthesis of polypeptides, S-adenosylmethionine and, in liver of normal and oestrogen-treated chicks (Eloranta, T. O., Mäenpää, P. H. & Raina, A. M.) 95–103

Ribonucleic acid, effects of polypeptides on the biosynthesis of, in Drosophila melanogaster larvae (Byus, C. V. & Herbst, E. J.) 23–29

Ribonucleic acid, messenger, metabolism of, and other ribonucleic acid species in developing rat brain (Berthold, W. & Lim, L.) 517–527

Ribonucleic acid, messenger, nature of the facilitated transport of, from isolated rat liver nuclei (Yannarell, A., Schum, D. E. & Webb, T. E.) 379–385

Ribonucleic acid, messenger, relationships between nuclei and cytoplasm in the metabolism of, and other ribonucleic acid species in developing rat brain (Berthold, W. & Lim, L.) 529–539

Ribonucleic acid polymerase, nuclear, liver, rat, acute effects of the administration of growth hormone on the template capacity of rat liver chromatin and on the activity of (Spelsberg, T. C. & Wilson, J. T.) 439–448

Ribonucleic acid, ribosomal, metabolism of, and other ribonucleic acid species in developing rat brain (Berthold, W. & Lim, L.) 517–527

Ribonucleic acid, ribosomal, relationships between nuclei and cytoplasm in the metabolism of, and other ribonucleic acid species in developing rat brain (Berthold, W. & Lim, L.) 529–539

Ribonucleic acids, high-molecular-weight, metabolism of, in developing rat brain (Berthold, W. & Lim, L.) 517–527

Ribonucleic acids, high-molecular-weight, relationships between nuclei and cytoplasm in the metabolism of, in developing rat brain (Berthold, W. & Lim, L.) 529–539

Ribonucleic acids, turnover as a control of the accumulation of, in Escherichia coli undergoing stepdown (Midgley, J. E. M.) 541–552

Ribonucleoprotein particles, 47S, accumulation of, as an unusual precursor of 50S ribosomes in a mutant strain of Escherichia coli (Markey, F. & Wild, D. G.) 311–318

Ribosomal ribonucleic acid, see Ribonucleic acid, ribosomal

Ribosomes, 50S, accumulation of 47S ribonucleoprotein particles as an unusual precursor of, in a mutant strain of Escherichia coli (Markey, F. & Wild, D. G.) 311–318

Ribosomes, maturation of, in Escherichia coli undergoing stepdown (Midgley, J. E. M.) 541–552

Ricin, variants of cultured baby-hamster kidney cells resistant to (Meager, A., Ungkitchanukit, A. & Hughes, R. C.) 113–124

Ricinus communis, see Bean, castor

Saccharomyces carlsbergensis N.C.Y.C. 74, effects of proton gradients and uncoupling agents on the uptake of glycine by, depleted of adenosine triphosphate (Seaston, A., Carr, G. & Eddy, A. A.) 669–676

Saccharomyces cerevisiae, glucose-repressed, distribution of membranes, especially of fragments of plasma membrane, during zonal centrifugation of homogenates from (Nurminen, T., Taskinen, L. & Soumalainen, H.) 751–763

Saccharomyces cerevisiae, stopped-flow dual-wavelength spectrophotometer suitable for the study of the oxidation of cytochrome c, and other respiratory-chain systems (Garland, P. B., Littleford, S. J. & Haddock, B. A.) 277–284
INDEX OF SUBJECTS

INDEX

Vol. 154


Seedlings, castor-bean, development and properties of fructose 1,6-diphosphatase in the endosperm of (Youle, R. J. & Huang, A. H. C.) 647–652

Serotonin, see 5-Hydroxytryptamine


Slime mould (Dictyostelium discoideum), binding of concanavalin A and its effect on the differentiation of (Darmon, M. & Klein, C.) 743–750

Small intestine, see Intestine, small

Smooth muscle, see Muscle, smooth

Sodium ions, antiport of protons and, in brush-border-membrane vesicles isolated from rat small intestine and kidney (Murer, H., Hopfer, U. & Kinne, R.) 597–604

Somatotrophin, see Growth hormone

Spermidine, biosynthesis effectsbiosynthesis of S-adenosylmethionine, ribonucleic acid and, and other polyamines in liver of normal and oestrogen-treated chicks (Eloranta, T. O., Mäenpää, P. H. & Raina, A. M.) 95–103

Spermidine, effects of, and other polyamines on the biosynthesis of ribonucleic acid in Drosophila melanogaster larvae (Byus, C. V. & Herbst, E. J.) 23–29

Spermine, biosynthesis of S-adenosylmethionine, ribonucleic acid and, and other polyamines in liver of normal and oestrogen-treated chicks (Eloranta, T. O., Mäenpää, P. H. & Raina, A. M.) 95–103

Spinach (Spinacia oleracea), see Spinach

Spinach, see Spinach

Spleen, rat, subcellular distribution and activity of deoxyinosine-activated nucleotidase in, and other tissues (Tjernshaugen, H. & Fritzson, P.) 77–80

Staphylococcus aureus, action of phosphatidylinositol-specific phospholipases C from pig lymphocytes and, on membranes of ox, sheep and cat erythrocytes and of rat liver microsomal fraction (Low, M. G. & Finean, J. B.) 203–208

Starvation, effects of alloxan-diabetes, high-fat diet and, on the regulation of the activities of pyruvate dehydrogenase and pyruvate dehydrogenase phosphate phosphatase in rat epididymal fat-pads (Stansbie, D. S., Denton, R. M., Bridges, B. J., Pask, H. T. & Randle, P. J.) 225–236

Steroids, mineralocorticoid, identification and properties of rat kidney receptors for, in relation to rat liver and kidney glucocorticoid receptors (Agarwal, M. K.) 567–575

Steroids, regulation by, related to 5β-androstane of the biosynthesis of haemoglobin in cultured chick-embryo blastodermis (Irvings, R. A., Mainwaring, W. I. P. & Spooner, P. M.) 81–93

Sterols, stimulation by the administration of compounds related to adenosine of the biosynthesis of, in rat liver (Rao, G. S., George, R. & Ramasarma, T.) 639–645

Succinate, influence of adenine nucleotides and, and other oxidizable substrates on the triethyltin-mediated uptake of chloride ions by rat liver mitochondria in media containing potassium chloride (Skilletter, D. N.) 271–276

Supernatant fraction, see Cytosol

Superoxide ion radicals, interactions of some acceptors with, formed by reduced nicotinamide-adenine dinucleotide phosphate-cytochrome reductase in rat liver microsomal fractions (Mishin, V., Pokrovsky, A. & Lyakovich, V. V.) 307–310

Synaptosomes, brain, rat, preparation and properties of mitochondria from (Lai, J. C. K. & Clark, J. B.) 423–432

Synaptosomes, cerebral-cortex, guinea-pig, incorporation of fatty acids and of derivatives of glucose into the phospholipids of subsynaptosomal fractions of (Baker, R. R., Dowdall, M. J. & Whittaker, V. P.) 65–75


Thymidine, incorporation of, into deoxyribonucleic acid during the life-span of the mosquito (Mills, B. J. & Lang, C. A.) 481–490

Thymidine monophosphate, transport of deoxyctydine and the metabolism of deoxyctydine monophosphate and, in phytohaemagglutinin-stimulated pig lymphocytes (Barlow, S. D.) 395–403

Toxins, fungal, inhibition by, of the biosynthesis of protein in rat reticulocyte lysates (Carter, C. J., Cannon, M. & Smith, K. E.) 171–178

Tricarboxylic acid cycle, activities of citrate synthase and nicotinamide-adenine dinucleotide-linked and nicotinamide-adenine dinucleotide phosphate-linked isocitrinate dehydrogenases of, in vertebrate and invertebrate muscle (Alp, P. R., Newsholme, E. A. & Zammit, V. A.) 689–700

Tricarboxylic acid cycle, activities of enzymes involved in, in rat brain synaptosomal mitochondria (Lai, J. C. K. & Clark, J. B.) 423–432

Tricarboxylic acid cycle, role of nicotinamide-adenine dinucleotide-linked dehydrogenase in the regulation by calcium ions and adenosine diphosphate of, in whelk radial muscle and insect flight muscle (Zammit, V. A. & Newsholme, E. A.) 677–687

Trichodermin, inhibition by, of the biosynthesis of protein in rat reticulocyte lysates (Carter, C. J., Cannon, M. & Smith, K. E.) 171–178

Triethylthiium, influence of adenine nucleotides and oxidizable substrates on the mediation by, of the uptake of chloride ions by rat liver mitochondria in media containing potassium chloride (Skilletter, D. N.) 271–276


Tumour cells, Ehrlich, transport of l-lactate in (Spencer, T. L. & Lehninger, A. L.) 405–414

Tyrosine aminotransferase, placental, rabbit, evidence for decreased inducibility by insulin or cortisol of the activity of, as a function of gestational age (Wade, R. S. & Gusseck, D. J.) 245–247
Ubiquinone reductase, see Nicotinamide-adenine dinucleotide (reduced) dehydrogenase

Urea, role of mitochondrial carbamoyl phosphate synthase in the control of the biosynthesis of, in rat liver (McGivan, J. D., Bradford, N. M. & Mendes-Mourão, J.) 415–421

Uridine diphosphate galactose, concentrations of uridine diphosphate glucose and, in regenerating rat liver (Bauer, C. H., Hassels, B. F. & Reutter, W. G.) 141–147

Uridine diphosphate glucose, concentrations of uridine diphosphate galactose and, in regenerating rat liver (Bauer, C. H., Hassels, B. F. & Reutter, W. G.) 141–147

Uridine diphosphate glucose, effects of uridine diphosphate galactose and, in perfused rat heart under working and non-working conditions (Das, I. & Chain, E.) 765–772

Uridine diphosphate glucose, evidence for the specific transport of, across rat mammary-gland Golgi-apparatus membrane (Kuhn, N. J. & White, A.) 243–244

Uridine diphosphate glucose, topographical location and unique nature of a glucokinase associated with rat liver Golgi apparatus and its relevance to the biosynthesis of (Berthillier, G., Coleman, R. & Walker, D. G.) 193–201

Uridine diphosphate glucuronyltransferase, microsomal, liver, guinea-pig, effects of depleting and restoring phospholipids on the activity of (Berry, C. S., Caldecourt, M. & Hallinan, T.) 783–785

Uridine, effects of polyamines on the incorporation of, into ribonucleic acid in Drosophila melanogaster larvae (Byus, C. V. & Herbst, E. J.) 23–29

Urine, excretion of N\textsuperscript{α}-methylarginine, N\textsuperscript{α}, N\textsuperscript{ \textalpha }-dimethylarginine and N\textsuperscript{α},N\textsuperscript{ \textalpha }-dimethylarginine in, in the rabbit (McDermott, J. R.) 179–184


Valine, inhibition by trichodermin of the incorporation of, into protein in rabbit reticulocyte lysates (Carter, C. J., Cannon, M. & Smith, K. E.) 171–178

Virus, polyoma, see Polyoma virus

Vitamin A, effect of the nutritional status of, on the oestrogen-primed growth of chick oviduct (Joshi, P. S., Murthy, S. K. & Ganguly, J.) 249–251

Whelk (Buccinum undatum), effects of calcium ions and adenosine diphosphate on the activity of nicotinamide-adenine dinucleotide-linked isocitrate dehydrogenases from insect flight muscle and (Zammitt, V. A. & Newsome, E. A.) 677–687

Yeast (Kloeckera apiculata N.C.Y.C. 245), conversion of 3-hydroxy-2,4,5-trihydroxymethylpyridine into pyridoxine by (Scott, T. A. & Picton, C.) 35–41

Yeast (Saccharomyces carlsbergensis N.C.Y.C. 74), effects of proton gradients and uncoupling agents on the uptake of glycine by, depleted of adenosine triphosphate (Seaston, A., Carr, G. & Eddy, A. A.) 669–676

Yeast (Saccharomyces cerevisiae), glucose-repressed, distribution of membranes, especially of fragments of plasma membrane, during zonal centrifugation of homogenates of (Nurminen, T., Taskinen, L. & Suomalainen, H.) 751–763

Yeast (Saccharomyces cerevisiae), stopped-flow dual-wavelength spectrophotometer suitable for the study of the oxidation of cytochrome c in, and other respiratory-chain systems (Garland, P. B., Littleford, S. J. & Haddock, B. A.) 277–284
The BIOCHEMICAL JOURNAL

Cellular Aspects

Volume 154 1976

EDITORIAL BOARD

Chairman
J. T. Dingle

Deputy Chairmen
K. M. Jones
N. M. Green*
R. D. Marshall
J. A. Lucy

Editorial Secretary
J. D. Killip

Assistant Editorial Secretary
E. N. Maltby

J. W. Bradbeer
H. G. Britton
R. B. Cain
M. Cannon
J. B. Clark
D. D. Davies
R. M. Denton
F. M. Dickinson
R. R. Dils
G. J. Dutton
D. C. Ellwood
P. B. Garland
J. L. Gordon
J. J. Holbrook
M. R. Hollaway
R. C. Hughes

W. I. P. Mainwaring
R. M. Marchbanks
P. A. Mayes
R. E. Offord
D. V. Parke
R. N. Perham
C. I. Pogson
D. Robinson
E. V. Rowsell
A. P. Ryle
J. E. Scott
S. P. Spragg*
D. R. Stanworth
D. H. Williamson

* Nominated by the British Biophysical Society

Overseas Advisory Panel


BS London: The Biochemical Society © 1976