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Sidney P. Colowick and Nathan O. Kaplan

RNA AND PROTEIN SYNTHESIS

Edited by

KIVIE MOLDAVE

RNA *and* PROTEIN SYNTHESIS

Edited by
KIVIE MOLDAVE

Department of Biological Chemistry
California College of Medicine
University of California
Irvine, California



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List of Contributors

Article numbers are in parentheses following the names of contributors. Affiliations listed are current.

- GEORGE ACS (6), *Department of Biochemistry and Pediatrics, Mount Sinai School of Medicine, New York, New York 10029*
- IRENE L. ANDRULIS (9), *Department of Medical Genetics, University of Toronto, Toronto, Ontario, Canada*
- STUART M. ARFIN (9), *Department of Biological Chemistry, College of Medicine, University of California, Irvine, California 92717*
- A. L. BEAUDET (45), *Department of Internal Medicine, Baylor College of Medicine, Houston, Texas 77030*
- ROB BENNE (28), *Department of Biochemistry, State University of Leiden, Leiden, The Netherlands*
- CLAIRE H. BIRGE (34), *Department of Medicine, The Jewish Hospital of St. Louis, St. Louis, Missouri 63110*
- LAWRENCE BITTE (62), *Department of Biochemistry, University of Oregon Medical School, Portland, Oregon 97201*
- JAMES W. BODLEY (38), *Department of Biochemistry, University of Minnesota, Minneapolis, Minnesota 55455*
- KALLOL K. BOSE (5), *Department of Chemistry, University of Nebraska, Lincoln, Nebraska 68105*
- NATHAN BROTH (38), *Department of Biochemistry, Roche Institute of Molecular Biology, Nutley, New Jersey 07110*
- MARIANNE L. BROWN-LUEDI (28), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- C. T. CASKEY (44), (45), *Department of Medicine, Baylor College of Medicine, 1200 Moursund Avenue, Houston, Texas 77030*
- F. CHAPEVILLE (13), *Institut de Biologie Moléculaire, Faculté des Sciences, Paris, France*
- NANDO K. CHATTERJEE (5), *Department of Chemistry, University of Nebraska, Lincoln, Nebraska 68105*
- S. CHOUSTERMAN (13), *Institut de Biologie Moléculaire, Faculté des Sciences, Paris, France*
- W. W. CLELAND (25), *Department of Biochemistry, University of Wisconsin, Madison, Wisconsin 53706*
- B. S. COOPERMAN (57), *Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104*
- GARY R. CRAVEN (65), *Laboratory of Molecular Biology, University of Wisconsin-Madison, Madison, Wisconsin 53706*
- ALBERT E. DAHLBERG (48), *Division of Biology and Medicine, Brown University, Providence, Rhode Island 02912*
- MURRAY P. DEUTSCHER (19), (23), *Department of Biochemistry, University of Connecticut Health Center, Farmington, Connecticut 06105*
- RALPH F. DI CAMELLI (60), *Department of Biochemistry, The University of Chicago, Chicago, Illinois 60637*
- JAN DIJK (52), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, Ihnestrasse 63-73, D-1000 Berlin 33 (Dahlem), Federal Republic of Germany*
- FERDINAND DOHME (50), *Althouse Laboratory, The Pennsylvania State University, University Park, Pennsylvania 16802*
- BERNARD S. DUDOCK (20), *Department of Biochemistry, State University of New York at Stony Brook, Stony Brook, New York 11794*
- B. Z. EGAN (2), *Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830*
- ELIZABETH ANN EIGNER (24), *142 Marlboro Street, Boston, Massachusetts 02178*
- CHARLES EIL (63), *Department of Biochemistry, The University of Chicago, Chicago, Illinois 60637*
- JOHN L. FAKUNDING (27), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- I. C. GILLAM (4), *Department of Biochemistry, University of British Columbia, Vancouver, British Columbia, Canada*
- AMANDA M. GILLUM (14), *Department of Pathology, Stanford University School of Medicine, Palo Alto, California 94305*

- EMANUEL GOLDMAN (18), *Department of Microbiology, New Jersey Medical School, 100 Bergen Street, Newark, New Jersey 07103*
- R. A. GOLDMAN (57), *Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104*
- J. GOLDSTEIN (44), *Department of Internal Medicine, University of Washington School of Medicine, Seattle, Washington 98105*
- FRED GOLINI (34), *Department of Microbiology, Health Sciences Center, State University of New York at Stony Brook, Stony Brook, New York 11794*
- P. G. GRANT (57), *Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104*
- ROBERT GREENBERG (20), *Department of Biochemistry, State University of New York at Stony Brook, Stony Brook, New York 11794*
- CLAUDIO GUALERZI (58), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, Ihnestrasse 63-73, D-1000 Berlin 33 (Dahlem), Federal Republic of Germany*
- NABA K. GUPTA (5), *Department of Chemistry, University of Nebraska, Lincoln, Nebraska 68105*
- ARNOLD E. HAMPEL (3), *Department of Biological Sciences, Northern Illinois University, DeKalb, Illinois 60115*
- S. J. S. HARDY (51), *Department of Genetics, University of Leicester, Leicester, England*
- G. WESLEY HATFIELD (18), *Department of Medical Microbiology, College of Medicine, University of California, Irvine, California 92717*
- GARY M. HATHAWAY (35), *Department of Biochemistry, University of California, Riverside, California 92502*
- D. E. HEATHERLY (2), *Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830*
- EDGAR C. HENSHAW (30), *University of Rochester Cancer Center, Rochester, New York 14642*
- C. F. HEREDIA (42), *Instituto de Enzimología del C.S.I.C., Facultad de Medicina de la Universidad Autónoma, Madrid, Spain*
- JOHN W. B. HERSHEY (27), (28), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- G. A. HOWARD (54), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- KENTARO IWASAKI (40), *Institute of Medical Science, University of Tokyo, Takanawa, Minato-ku, Tokyo 108, Japan*
- DAVID KABAT (62), *Department of Biochemistry, University of Oregon Medical School, Portland, Oregon 97201*
- RAYMOND KAEMPFFER (46), *Hebrew University-Hadassah Medical School, Jerusalem, Israel*
- YOSHITO KAZIRO (40), *Institute of Medical Science, University of Tokyo, Takanawa, Minato-ku, Tokyo 108, Japan*
- A. D. KELMERS (1), (2), *Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830*
- JAMES W. KENNY (56), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- MARILYN KOZAK (32), *Department of Biological Sciences, University of Pittsburgh, Pittsburgh, Pennsylvania 15260*
- C. G. KURLAND (51), *The Wallemberg Laboratory, University of Uppsala, Uppsala, Sweden*
- JOHN M. LAMBERT (56), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- ALAN M. LAMBOWITZ (66), *The Edward A. Doisy Department of Biochemistry, St. Louis University Medical School, St. Louis, Missouri 63104*
- YEHUDA LAPIDOT (10), (11), *Department of Biological Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel*
- PHILIP LEDER (17), (37), *National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, Maryland 20014*

- FRITZ LIPMANN (6), (41), *The Rockefeller University, New York, New York 10021*
- JENNY LITTLECHILD (52), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, Ihnestrasse 63-73, D-1000 Berlin 33 (Dahlem), Federal Republic of Germany*
- ROBERT B. LOFTFIELD (24), *Department of Biochemistry, University of New Mexico School of Medicine, Albuquerque, New Mexico 87131*
- C. V. LOWRY (49), *Laboratory of Genetics, University of Wisconsin, Madison, Wisconsin 53706*
- M. A. LUDDY (57), *Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104*
- TINA S. LUNDAK (35), *Department of Biochemistry, University of California, Riverside, California 92502*
- LIUBICA MAUSER (29), *Department of Biochemistry, New York University Medical Center, New York, New York 10016*
- ALAN H. MEHLER (26), *Department of Biochemistry, Medical College of Wisconsin, Milwaukee, Wisconsin 53706*
- MATTHEW MESELSON (46), *The Biological Laboratories, Harvard University, Cambridge, Massachusetts 02138*
- CHRISTIAN F. MIDELFORT (26), *Department of Biochemistry, Medical College of Wisconsin, Milwaukee, Wisconsin 53706*
- GREGORY MILMAN (44), *Department of Biochemistry, The Johns Hopkins University, School of Hygiene and Public Health, Baltimore, Maryland 21205*
- A. MINNELLA (57), *Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104*
- S. MIZUSHIMA (49), *Faculty of Agriculture, Nagoya University, Chikusa, Nagoya, Japan*
- G. MORA (51), *Department of Microbiology, The Catholic University of Chile, Santiago, Chile*
- LYDA NEELEMAN (33), *Department of Biochemistry, State University of Leiden, 2300 RA Leiden, The Netherlands*
- A. W. NICHOLSON (57), *Department of Chemistry, University of Pennsylvania, Philadelphia, Pennsylvania 19104*
- KNUD H. NIERHAUS (36), (50), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, I Berlin-Dahlem 33, Federal Republic of Germany*
- M. NOMURA (49), *Laboratory of Genetics, University of Wisconsin, Madison, Wisconsin 53706*
- G. DAVID NOVELLI (1), *Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830*
- JAMES OFENGAND (21), *Department of Biochemistry, Roche Institute of Molecular Biology, Nutley, New Jersey 07110*
- KIKUO OGATA (55), *Department of Biochemistry, Niigata University School of Medicine, Niigata, Japan*
- R. L. PEARSON (1), *Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee*
- SIDNEY PESTKA (12), (59), *Department of Biochemistry, Roche Institute of Molecular Biology, Nutley, New Jersey 07110*
- CYNTHIA L. PON (58), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, Ihnestrasse 63-73, D-1000 Berlin 33 (Dahlem), Federal Republic of Germany*
- UTTAM L. RAJBHANDARY (14), *Department of Biology, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139*
- SARA RAPPOPORT (10), (11), *Department of Biological Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel*
- JOANNE W. RAVEL (39), *Clayton Foundation Biochemical Institute, The University of Texas at Austin, Austin, Texas 78712*
- SCOTT A. REINES (15), *Department of Psychiatry, Montefiore Hospital and Medical Center, Bronx, New York 10467*
- DIETMAR RICHTER (41), *Physiologisch-Chemisches Institut der Universität Hamburg, Abteilung Zellbiochemie, Hamburg, West Germany*
- WILLIAM G. ROBINSON (29), *Department of Biochemistry, New York University Medical Center, New York, New York 10016*
- BRUCE RUEFER (3), *Department of Biological Sciences, Northern Illinois University, DeKalb, Illinois 60115*

- A. SANDOVAL (42), *Instituto de Enzimología del C.S.I.C., Facultad de Medicina de la Universidad Autónoma, Madrid, Spain*
- DANIEL V. SANTI (25), *Department of Biochemistry and Biophysics, University of California School of Medicine, San Francisco, California 94143*
- ASOK K. SARKAR (16), *Department of Developmental Biology and Cancer, Albert Einstein College of Medicine, Bronx, New York 10461*
- PAUL R. SCHIMMEL (22), *Department of Biology, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139*
- HUBERT J. P. SCHOEMAKER (22), *Corning Medical Center, Medfield, Massachusetts 02052*
- LADONNE H. SCHULMAN (15), (16), *Department of Developmental Biology and Cancer, Albert Einstein College of Medicine, Bronx, New York 10461*
- JEAN SCHWARZBAUER (65), *Laboratory of Molecular Biology, University of Wisconsin-Madison, Madison, Wisconsin 53706*
- E. SCOLNICK (44), *National Cancer Institute, National Institutes of Health, Bethesda, Maryland 20014*
- AARON J. SHATKIN (32), *Department of Cell Biology, Roche Institute of Molecular Biology, Nutley, New Jersey 07110*
- CORINNE C. SHERTON (60), (61), *Department of Biochemistry, The University of Chicago, Chicago, Illinois 60637*
- ROSE ANN L. SHOREY (39), *Clayton Foundation Biochemical Institute and the Department of Home Economics, The University of Texas at Austin, Austin, Texas 78712*
- MELVIN SILBERKLANG (14), *Department of Biochemistry and Biophysics, University of California, San Francisco, California 94143*
- LAWRENCE SKOGERSON (43), *Department of Biochemistry, The Medical College of Wisconsin, Milwaukee, Wisconsin 53233*
- MATHIAS SPRINZL (8), *Max-Planck-Institut für Experimentelle Medizin, Abteilung Chemie, Hermann-Rein-Strasse 3, D-3400 Göttingen, Federal Republic of Germany*
- JOAN ARGETSINGER STEITZ (31), *Department of Molecular Biophysics and Biochemistry, Yale University, New Haven, Connecticut 06510*
- HANS STERNBACH (8), *Max-Planck-Institut für Experimentelle Medizin, Abteilung Chemie, Hermann-Rein-Strasse 3, D-3400 Göttingen, Federal Republic of Germany*
- W. A. STRYCHARZ (57), *Institute for Enzyme Research, University of Wisconsin, Madison, Wisconsin 53705*
- M. P. STULBERG (1), *Biology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830*
- PAUL S. SYPHERD (47), *Department of Medical Microbiology, California College of Medicine, University of California, Irvine, California 92717*
- S. M. TAHARA (35), *Department of Biochemistry, University of California, Riverside, California 92502*
- W. P. TATE (45), *Department of Internal Medicine, Baylor College of Medicine, Houston, Texas 77030*
- G. M. TENER (4), *Department of Biochemistry, University of British Columbia, Vancouver, British Columbia, Canada*
- KAZUO TERA0 (55), *Department of Biochemistry, Niigata University School of Medicine, Niigata, Japan*
- ROBERT E. THACH (34), *Department of Biology, Washington University, St. Louis, Missouri 63130*
- R. TOMPKINS (44), *Department of Medicine, Dartmouth Medical School, Hanover, New Hampshire 03755*
- A. TORAÑO (42), *Instituto de Enzimología del C.S.I.C., Facultad de Medicina de la Universidad Autónoma, Madrid, Spain*
- P. TRAUB (49), *Max Planck Institut für Zell Biologie, Bremerhaven, Germany*
- ROBERT R. TRAUT (54), (56), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- JOLINDA A. TRAUGH (35), *Department of Biochemistry, University of California, Riverside, California 92502*
- BENJAMIN V. TREADWELL (29), *Department of Biochemistry, New York University*

- Medical Center, New York, New York 10016*
- LOUS VAN VLOTEN-DOTING (33), *Department of Biochemistry, State University of Leiden, 2300 RA Leiden, The Netherlands*
- ROBERT W. WEBSTER, JR. (25), *Department of Biochemistry and Biophysics, University of California School of Medicine, San Francisco, California 94143*
- H. O. WEEREN (1), *Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee*
- J. F. WEISS (1), *Chemical Technology Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830*
- HERBERT WEISSBACH (38), *Department of Biochemistry, Roche Institute of Molecular Biology, Nutley, New Jersey 07110*
- H. G. WITTMANN (53), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, 1 Berlin-Dahlem 33, Germany*
- JOHN W. WIREMAN (47), *Department of Microbiology, University of Minnesota Medical School, Minneapolis, Minnesota*
- RICHARD WOLFENDEN (7), *Frick Chemical Laboratory, Princeton University, Princeton, New Jersey 08540*
- IRA G. WOOL (60), (61), (63), *Department of Biochemistry, University of Chicago, Chicago, Illinois 60637*
- PETER WURMBACH (36), *Max-Planck-Institut für Molekulare Genetik, Abteilung Wittmann, 1 Berlin-Dahlem 33, Federal Republic of Germany*
- JOAN YANOV (27), *Department of Biological Chemistry, School of Medicine, University of California, Davis, California 95616*
- ROBERT A. ZIMMERMANN (64), *Department of Biochemistry, University of Massachusetts, Amherst, Massachusetts 01003*

Foreword

The *Methods in Enzymology* series, which was originally published as a four-volume treatise over twenty-five years ago, has now grown to over 80 volumes. It has become more and more difficult for an individual investigator to locate particular methods of interest, especially in rapidly developing fields in which pertinent information now appears in many volumes of the series. Although individual and cumulative indexes are provided, the task of information retrieval is still formidable. We have, therefore, undertaken to provide such investigators and their students with a single volume work in a given area of interest, compiled by selection of the most essential and widely used procedures published in volumes of *Methods in Enzymology* in that particular area. The aim is to permit the individual investigator or student to have conveniently at hand all of the basic methodology in that field at relatively low cost. The articles, which are selected by the editors in that area, will be unabridged. A new Subject Index will be prepared for each volume of "Selected Methods in Enzymology."

It is our intention that one volume of "Selected Methods" will be derived from five to six related volumes of equivalent size in the parent series. This volume, which is the first of the "Selected Methods" series, deals with RNA and Protein Synthesis, and is comprised of articles selected by Dr. Moldave from volumes of the *Methods in Enzymology* series for which he served as an editor. We hope that this experiment in publication proves useful to the broad audience for this new series.

SIDNEY P. COLOWICK
NATHAN O. KAPLAN

Preface

One of the considerations in selecting articles from the *Methods in Enzymology* series volumes for this volume was to provide a comprehensive compendium of methods for the assay, characterization, isolation purification, etc., of various organelles, enzymes, nucleic acids, translational factors, and other components and reactions that participate in protein synthesis. A large number of equally important articles, however, had to be omitted. In many cases, the decision was an arbitrary one made by the Editor, and does not reflect on the quality or the reproducibility of the procedures that were not included; indeed, users of this volume are also referred to those articles for modifications, alternative procedures, and, in some cases, topics not covered in this volume. Where a cross reference is given to a volume and paper in this series, it refers to the *Methods in Enzymology* series. Where only volumes and paper numbers are referred to, the volumes too are those in the *Methods in Enzymology* series.

I would like to take this opportunity to again thank those who have contributed so generously to these works on RNA and protein synthesis.

KIVIE MOLDAVE

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Section I
Transfer RNA

