

Curriculum Vitae

ROBERT ADER, Ph.D., M.D.(hc)

Distinguished University Professor

Department of Psychiatry

University of Rochester School of Medicine and Dentistry

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EDUCATION

Tulane University, New Orleans, LA	B.S.	1953	Psychology
Cornell University, Ithaca, NY	Ph.D.	1957	Psychology

CURRENT ACADEMIC APPOINTMENTS

University of Rochester School of Medicine and Dentistry:	
Distinguished University Professor	2002 - present
Professor of Medicine	1983 - present
Professor of Psychiatry	1968 - present
Professor of Clinical and Social Psychology	1995 - present
Member, Strong Children's Research Center	
Member, Neuroscience Program Faculty	

PREVIOUS POSITIONS

University of Rochester School of Medicine and Dentistry:	
George L. Engel Professor of Psychosocial Medicine	1983 - 2002
Dean's Professor	1982 - 1983
Associate Professor of Psychiatry (Psychology)	1964 - 1968
Research Assistant Professor of Psychiatry (Psychology)	1961 - 1964
Research Senior Instructor in Psychiatry (Psychology)	1959 - 1961
Research Instructor in Psychiatry (Psychology)	1957 - 1959
University of Rochester:	
Professor, Department of Psychology (Clinical & Social Sciences)	1968 - present
Fellow, Center for Advanced Study in the Behavioral Sciences	1992 - 1993
University of Utrecht - Medical Faculty (The Netherlands):	
Visiting Professor, Rudolf Magnus Institute for Pharmacology	1970 - 1971

Cornell University:
Teaching and Research Assistantships, Department of Psychology 1953 - 1957

GRANTS AND AWARDS

Research Scientist Award K3-MH-06318 (1969-1999)
Psychoneuroimmunology

Research Career Development Award-II K3-MH-06318 (1964-1969)
Psychosomatic Phenomena in Animals

Institutional Training Grant (USPHS) T32-MH-18822 (1987-2001)
Pre- and Post-Doctoral Research Training in Psychoneuroimmunology (PI)

Institutional Training Grant (USPHS) T32-MH-14650 (1976-1979)
Institutional Postdoctoral Research Fellowship Training (Co-PI)

Conference Grant (USPHS) R13 MH53790 (1994-95)
Research Perspectives in Psychoneuroimmunology V (Co-PI)

Conference Grant (USPHS) R13 MH47228 (1990-91)
Psychoneuroimmunology Conference (PI)

*Research Grant (USPHS) AR-050100 (2004-2009)
Classical Conditioning in the Pharmacotherapy of Psoriasis (Subcontract PI)

*Research Grant (USPHS) HL73495 (2002-2006)
Conditioned Placebo Effects & Treatment of Hypertension (Subcontract PI)

*Research Grant (USPHS) AI47288 (2001-2005)
Effects of Stress in Immunocompromised Hosts (I)

*Research Grant (USPHS) AR-46825 (2000-2005)
Role of Conditioning in the Pharmacotherapy of Psoriasis (PI)

Research Support (The Fetzer Institute) (1996-2000)
Center for Psychoneuroimmunology Research (PI)

Research Grant (The Fetzer Institute) (1991-1993)
Conditioned Immunosuppressive Effects in Human Subjects with Multiple Sclerosis (PI)

Research Grant (USPHS) MH-45681 (1989-1992)
Stress-induced Modulation of Immunity

- Research Grant (Kettering Foundation) (1989-1991)
Conditioned Therapeutic and Immunologic Changes in Rheumatoid Arthritis (PI)
- Research Grant (Institute for the Advancement of Health) (1988-1991)
A Conditioning Model of Pharmacotherapy in Hyperkinesis (PI)
- *Research Grant (Philip Morris Co.) (1987-, 1989-)
Unrestricted research funds (PI)
- Research Grant (USPHS) NS-22228 (1986-1990)
Behavioral Conditioning, Pharmacotherapy, and Disease (PI)
- Research Grant (Joan B. Kroc Foundation) (1986-1988)
A Conditioning Model of Pharmacotherapy: Hypertension (PI)
- Research Grant (RJR Nabisco, Inc.) (1985-1989)
Stress, Immune Function, and Cancer (PI)
- Research Grant (Ruth Mott Fund) (1983-1985)
Early Stress Experiences and Development of Immune Function (Co-PI)
- Research Grant (Kroc Foundation) (1980-1984)
Behavioral Processes in the Immunopharmacotherapy of Autoimmune Disease (PI)
- Research Grant (Sergei S. Zlinkoff Fund) (1980)
Conditioned Immune Responses (PI)
- Research Grant (USPHS) NS-15071; MH-42051 (1979-1992)
Behaviorally Conditioned Immunosuppression (PI)
- Research Grant (USPHS) R01 MH-42051(16-20) (1992-1997)
Behaviorally Conditioned Immune Responses (PI)
- Research Grant (USPHS) DA-02300 (1979-1982)
Marijuana: Longitudinal Psychobiologic Effects (PI)
- Research Grant (USPHS) HD-09977 (1976-1978)
Behaviorally Conditioned Immunosuppression (PI)
- Research Grant (The W.T. Grant Foundation) (1975-1976)
Behaviorally Conditioned Immunosuppression (PI)
- Research Grant (USPHS) MH-23533 (1974-1976)
Early Experience, Development, and Adaptation (PI)
- Research Grant (USPHS) HD-08362 (1974-1977)
Environmental Stimulation, Hormones, and CNS Development (Co-PI)

Research Grant (The W.T. Grant Foundation) (1973-1974)
Early Life Experiences, Subsequent Behavior, and Resistance to Stress (PI)

Program-Project Research Grant (USPHS) MH-16741 (1969-1973)
Developmental Processes and Psychosomatic Phenomena (PI)

Research Grant (American Cancer Society) (1962-1963)
Psychological Factors and Susceptibility to Cancer in Animals (PI)

Research Grant (USPHS) MH-03655 (1959-1968)
Variables Influencing Psychosomatic Phenomena (PI)

* Active grants

UNIVERSITY ADMINISTRATIVE ASSIGNMENTS

Acting Director, Division of Psychology, Department of Psychiatry (1995-01)

Director, Center for Psychoneuroimmunology Research (1993-02)

Director, Division of Behavioral and Psychosocial Medicine (1982-01)

Arthur Kornberg Research Award Selection Committee (1998-1999)

Advisory Committee, Outcomes Research Division, Department of Pediatrics (1997-)

Chair, Faculty Performance and Evaluation Committee (1997-98)

Chair, Head of Psychology Search Committee (1997-2000)

MD/PhD Advisory Committee (1988-)

Director, NIMH Institutional Pre- and Postdoctoral Research Training Program
in Psychoneuroimmunology (1987-01)

Chair, Search Committee (Psychosocial Oncology), UR Cancer Center (1987-88)

Lecture Planning Committee, "Cluster in the Social Studies of Science," (1986-87)

Planning Advisory and Education Committee, Department of Psychiatry (1984-85)

School of Medicine and Dentistry, Ad Hoc Promotions Committees (1982-)

Executive Committee, Department of Psychiatry (1978-2002)

Chair, Committee on Research, Department of Psychiatry (1978-88)

Committee on Graduate Studies, Department of Psychology (1973-78)

Executive Committee, Division of Psychology (1971-95)

Medical Center Biomedical Research Support Grant Committee (1968-79)

University Senate (1974-77); Committee on Research Policy (1974-77)

SOCIETY MEMBERSHIPS

Academy of Behavioral Medicine Research (Founding Member & Fellow) (1978-)
American Association of University Professors (1979-01)
American Psychological Association (1958-1981)
American Psychosomatic Society (1958-)
Eastern Psychological Association (1958-98)
International Society for Developmental Psychobiology (1971-01)
Psychonomic Society (1964-1997)
Psychoneuroimmunology Research Society (Founding Member) (1993-)
Sigma Xi (1954)
Society of Behavioral Medicine (Fellow) (1985-03)

NATIONAL AND INTERNATIONAL ACTIVITIES/HONORS

2003- External Advisory Board, UCLA Cousins Center for Psychoneuroimmunology
2003-04 ABMR: Neal Miller Award Committee
2002 Honorary Doctor of Science Degree, Tulane University, New Orleans, LA
2001 Robert Ader New Investigator Award established by the PsychoNeuroImmunology Research Society
2000 Distinguished Researcher Award, Association of Medical School Psychologists
1999 Sixth Neal Miller Distinguished Lecture, American Psychological Association
1997 Arthur Kornberg Research Award, University of Rochester
1996-98 Associate Editor, *Psychosomatic Medicine*
1995-00 Communications Scientific Advisory Panel, Center for the Advancement of Health, Washington, D.C.
1993-94 *Founding President*, Psychoneuroimmunology Research Society
1992-93 Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford, CA
1992 Doctor of Medicine (*honoris causa*), University of Trondheim, Norway
1992 American Psychosomatic Society Visiting Scholar (Eastern Virginia Medical School)
1991 First Norman Cousins Memorial Lecturer, Psychoneuroimmunology Conference Series
1991- Editorial Board, *American Journal of Health Promotion*

- 1990-96 Fellow, The Fetzer Institute, Kalamazoo, MI
- 1990-01 Board of Directors, Fund for Psychoneuroimmunology, Los Angeles, CA
- 1990-96 Associate Editor, *Advances in Neuroimmunology*
- 1990-94 Council, International Association for Integrative Nervous Function
- 1990- Panel of Reviewers, Medical Research Council of New Zealand
- 1989 Salmon Lecturer, New York Academy of Medicine
- 1989- Scientific Advisory Board, Mind/Body Medical Institute, Harvard University
- 1988-92 Co-Chair (with Dr. Julius Richmond), 50th Anniversary Meeting of the American Psychosomatic Society (1992)
- 1988- Editorial Board, *Behavioral Medicine*
- 1988- Editorial Board, *Journal of Neuropsychiatry and Clinical Neurosciences*
- 1988-90 Editorial Board, *Progress in Neuroendocrinimmunology*
- 1987-90 Ad Hoc Member, UCLA Task Force on Psychoneuroimmunology
- 1986-02 Editor-in-Chief, *Brain, Behavior, and Immunity*
- 1986-95 Editorial Board, *Neuroscience Research Communications*
- 1984-85 *President*, Academy of Behavioral Medicine Research
Executive Council, ABMR (1982-84)
- 1983-85 National Academy of Sciences Committee for Revision of the *Guide for the Care and Use of Laboratory Animals*, Commission on Life Sciences, Nat'l. Rsrch. Council
- 1983- Panel of Reviewers, National Health and Medical Research Council of Australia
- 1983- Board of Reviewers, United States-Israel Binational Science Foundation
- 1983-90 Scientific Advisory Board, Institute for the Advancement of Health
- 1982-90 Editorial Board, *Behavioral Neuroscience*
- 1981- Board of Directors, American Institute of Stress, Inc.
- 1981-82 *President*, International Society for Developmental Psychobiology
Board of Directors (1974-77; 1980-83); Program Chair (1977-78)
- 1979-80 *President*, American Psychosomatic Society
Executive Council, APS (1973-76; 1977-81)
- 1974-82 Editorial Board, *Journal of Comparative & Physiological Psychology*
- 1971-81 Editorial Board, *Developmental Psychobiology*
- 1970-80 Editorial Board, *Developmental Psychology*
- 1964- Editorial Board, *Psychosomatic Medicine*

AD HOC REVIEWER

American Journal of Medicine; American Journal of Psychiatry; American Psychologist; Animal Behavior; Animal Learning and Behavior; Annals of Behavioral Medicine; Archives of Internal Medicine; Archives of Neurology; Archives of Pediatrics & Adolescent Medicine; Behavior Therapy; The Behavioral and Brain Sciences; Behavioral and Neural

Biology; Behavioral Neuroscience; Behavioural and Brain Research; Biological Psychiatry; Brain. Behavior and Immunity; British Journal of Health Psychology; Canadian Journal of Psychology; Cancer Investigation; Chemical Senses; Clinical Immunology; Developmental Psychobiology; European Journal of Oral Sciences; European Journal of Pharmacology; Health Psychology; International Journal of Immunopharmacology; International Journal of Psychology; International Journal of Psychophysiology; Journal of Abnormal Psychology; Journal of the Acoustical Society of America; Journal of the American Medical Association; Journal of Behavioral Medicine; Journal of Developmental and Behavioral Pediatrics; Journal of Experimental Psychology, Animal Behavior Processes; Journal of Nervous and Mental Disease; Journal of Neuroimmunology; Journal of Pharmacology and Experimental Therapeutics; Journal of Psychiatric Research; Lancet; Life Sciences; Neuroendocrinology; Neuroimmunomodulation; Neuroscience and Biobehavioral Reviews; New England Journal of Medicine; Pain Forum; Pavlovian Journal of Biological Sciences; Perspectives in Biology and Medicine; Pharmacology, Biochemistry and Behavior; Physiology and Behavior; Physiology, Biochemistry, and Behavior; Proceedings of the National Academy of Sciences; Progress in Neuroendocrinimmunology; Psychological Bulletin; Psychological Medicine; Psychological Reports; Psychological Reviews; Psychological Science; Psychology and Health; Psychoneuroendocrinology; Psychonomic Science; Psychopharmacologia; Psychopharmacology; Psychophysiology; Psychosomatics; Radiation Research; Schizophrenia Research; Science; Stress Medicine

National Institutes of Health, National Institute of Mental Health, National Cancer Institute; National Science Foundation; Veterans Administration; NY State Department of Health; US Department of the Army

Ontario Mental Health Council; Medical Research Council of Canada; Canada Ministry of Health; National Cancer Institute of Canada; Swiss National Science Foundation; Swiss Federal Institute of Technology; United States-Israel Binational Science Foundation; Israel Science Foundation; Health Research Board of Ireland; Medical Research Council of New Zealand National Health and Medical Research Council of Australia

Fetzer Institute; W.T. Grant Foundation; John D. & Catherine T. MacArthur Foundation

Academic Press; CRC Press; C.V. Mosby Co.; W.H. Freeman Publ.; Plenum Press; Sage Publ.

PUBLICATIONS

ADER, R., & CLINK, D. W. Effects of chlorpromazine on the acquisition and extinction of a conditioned avoidance response in the rat. *J. Pharm. Exp. Therap.*, 1957, 121, 144-148.

ADER, R. The effects of early experience on subsequent emotionality and resistance to stress. *Psychol. Monog.*, 1959, 73 (Whole No. 472).

- ADER, R. On the onset of extinction in avoidance conditioning. *Psychol. Rep.*, 1960, 6, 179-183.
- ADER, R., TATUM, R., & BEELS, C. C. Social factors affecting emotionality and resistance to disease in animals: I. Age of separation from the mother and susceptibility to gastric ulcers in the rat. *J. Comp. Physiol. Psychol.*, 1960, 53, 446-454.
- ADER, R., BEELS, C.C., & TATUM, R. Social factors affecting emotionality and resistance to disease in animals: II. Susceptibility to gastric ulceration as a function of interruptions in social interactions and the time at which they occur. *J. Comp. Physiol. Psychol.*, 1960, 53, 455-458.
- ADER, R., BEELS, C.C. & TATUM, R. Blood pepsinogen and gastric erosions in the rat. *Psychosom. Med.*, 1960, 22, 1-13.
- ADER, R. & TATUM, R. Free-operant avoidance conditioning in human subjects. *J. Exp. Anal. Behav.*, 1961, 4, 275-276.
- ADER, R. & BELFER, M.L. Emotional behavior in the rat as a function of maternal emotionality. *Psychol. Rep.*, 1962, 10, 349-350.
- ADER, R. Social factors affecting emotionality and resistance to disease in animals: III. Early weaning and susceptibility to gastric ulcers in the rat. A control for nutritional factors. *J. Comp. Physiol. Psychol.*, 1962, 55, 600-602.
- ADER, R. & BELFER, M.L. Prenatal maternal anxiety and offspring emotionality in the rat. *Psychol. Rep.*, 1962, 10, 711-718.
- ADER, R. The basic variable in the early handling phenomenon. *Science*, 1962, 136, 580-583.
- ADER, R., KREUTNER, A. JR., & JACOBS, H.L. Social environment, emotionality, and alloxan diabetes in the rat. *Psychosom. Med.*, 1963, 25, 60-68.
- ADER, R. & TATUM, R. Free-operant avoidance conditioning in individual and paired human subjects. *J. Exp. Anal. Behav.*, 1963, 6, 357-359.
- ADER, R. & HAHN, E. W. Effects of social environment on mortality to whole body x-irradiation in the rat. *Psychol. Rep.*, 1963, 13, 211-215.
- ADER, R. & HAHN, E. W. Dominance and emotionality in the rat and their effects on mortality to whole-body x-irradiation. *Psychol. Rep.*, 1963, 13, 617-618.
- ADER, R. Plasma pepsinogen level in rat and man. *Psychosom. Med.*, 1963, 25, 218-220.
- ADER, R. Plasma pepsinogen level as a predictor of susceptibility to gastric erosions in the rat. *Psychosom. Med.*, 1963, 25, 221-232.
- ADER, R. Susceptibility to gastric lesions in the rats. *J. Neuropsychiat.*, 1963, 4, 339-407.
- ADER, R. & CONKLIN, P.M. Handling of pregnant rats: Effects on emotionality of their offspring. *Science*, 1964, 145, 406-407.

- ADER, R. Gastric erosions in the rat: Effects of immobilization at different points in the activity cycle. *Science*, 1964, 145, 406-407.
- ADER, R. & SCIBETTA, J. Temporal parameters in the acquisition of a free-operant avoidance response in human subjects. *Psychon. Sci.*, 1964, 1, 385-386.
- ADER, R. & Friedman, S. B. Social factors affecting emotionality and resistance to disease in animals: IV. Differential housing, emotionality, and Walker 256 carcinosarcoma in the rat. *Psychol. Rep.* 1964, 15, 535-541.
- ADER, R. & FRIEDMAN, S. B. Psychological factors and susceptibility to disease in animals. In *Medical aspects of stress in the military climate*. Walter Reed Army Institute of Research, Washington, DC, 1964, 457-470.
- FRIEDMAN, S. B. & ADER, R. Parameters relevant to the experimental production of "stress" in the mouse. *Psychosom. Med.*, 1965, 27, 270-30.
- ADER, R. & FRIEDMAN, S. B. Social factors affecting emotionality and resistance to disease in animals: V. Early separation from the mother and response to a transplanted tumor in the rat. *Psychosom. Med.*, 1965, 27-119-122.
- WEINER, I. B. & ADER, R. Direction of aggression and adaptation to free-operant avoidance conditioning. *J. Pers. Soc. Psychol.*, 1965, 2, 426-429.
- FRIEDMAN, S. B., ADER, R., & GLASGOW, L. A. Effect of psychological stress in adult mice inoculated with coxsackie B viruses. *Psychosom. Med.*, 1965, 27- 361-368.
- ADER, R. & FRIEDMAN, S.B. Differential early experiences and susceptibility to transplanted tumor in the rat. *J. Comp. Physiol. Psychol.*, 1965, 59, 361-364.
- ADER, R. Effects of early experience and differential housing on behavior and susceptibility to gastric erosions in the rat. *J. Comp. Physiol. Psychol.*, 1965, 60, 233-238.
- ADER, R. Frequency of stimulation during early life and subsequent emotionality in the rat. *Psychol. Rep.*, 1966, 18, 695-701.
- ADER, R. Early experience and adaptation to stress. *Res. Publ. Ass. Res. Nerv. Ment. Dis.*, 1966, 43, 292-306.
- ADER, R. Training for psychosomatic research: Some views of an experimental psychologist. *Adv. Psychosom. Med.*, 1967, 5, 90-99.
- ADER, R., FRIEDMAN, S.B., & GROTA, L. J. 'Emotionality' and adrenal cortical function: Effect of strain, test and the 24-hour corticosterone rhythm. *Anim. Behav.*, 1967, 15, 37-44.
- ADER, R. Emotional reactivity and susceptibility to gastric erosions. *Psychol. Rep.*, 1967, 20, 1059-1061.
- ADER, R. The influence of psychological factors on disease susceptibility in animals. In M.L. Conalty (Ed.) *The husbandry of laboratory animals*. London: Academic Press, 1967 (pp. 219-238).

- FRIEDMAN, S.B., ADER, R., GROTA, L.A., & LARSON, T. Plasma corticosterone response to parameters of electric shock stimulation in the rat. *Psychosom. Med.*, 1967, 29, 323-328.
- FRIEDMAN, S.B. & ADER, R. Adrenocortical response to novelty and noxious stimulation. *Neuroendocrinol.*, 1967, 29, 345-353.
- ADER, R. Behavioral and physiological rhythms and the development of gastric erosions in the rat. *Psychosom. Med.*, 1967, 29, 345-353.
- ADER, R., & SCHAEFFER, A. Effects of early experiences on one-trial avoidance conditioning. *Psychon. Sci.*, 1968, 10, 235-236.
- ADER, R., FRIEDMAN, S.B., GROTA, L. J. & SCHAEFFER, A. Attenuation of the plasma corticosterone response to handling and electric shock stimulation in the infant rat. *Physiol. Behav.*, 1968, 3, 327-331.
- ADER, R. & PLAUT, S.M. Effect of prenatal maternal handling and differential housing on offspring emotionality, plasma corticosterone levels and susceptibility to gastric erosions. *Psychosom. Med.*, 1968, 30, 277-286.
- ADER, R. Effects of early experiences on emotional and physiological reactivity in the rat. *J. Comp. Physiol. Psychol.*, 1968, 66, 264-268.
- PLUME, S., FOGARTY, C., GROTA, L.J., & ADER, R. Is retrieving a measure of maternal behavior in the rat? *Psychol. Rep.*, 1968, 23, 627-630.
- ADER, R., & FRIEDMAN, S.B. Plasma corticosterone response to environmental stimulation: Effects of duration of stimulation and the 24-hour adrenocortical rhythm. *Neuroendocrinol.*, 1968, 3, 378-386.
- ADER, R. Early experiences accelerate maturation of the 24-hour adrenocortical rhythm. *Science*, 1969, 163, 1225-1226.
- GROTA, L.J. & ADER, R. Effects of litter size on emotionality, adrenocortical reactivity, and susceptibility to gastric erosions in the rat. *Psychol. Rep.*, 1969, 24, 547-549.
- ADER, R. & GROTA, L.J. The effects of early experience on adrenocortical reactivity. *Physiol. Behav.*, 1969, 4, 303-305.
- ADER, R. Adrenocortical function and the measurement of "emotionality." *Ann. N. Y. Acad. Sci.*, 1969, 791-805.
- FRIEDMAN, S.B., GLASGOW, L.A., & ADER, R. Psychosocial factors modifying host resistance to experimental infections. *Ann. N.Y. Acad. Sci.*, 1969, 164, 381-392.
- PLAUT, S.M., ADER, R., FRIEDMAN, S.B., & RITTERSON, A.L. Social factors and resistance to malaria in the mouse: Effect of group vs. individual housing on resistance to *Plasmodium berghei* infection. *Psychosom. Med.*, 1969, 31, 536-552.
- GROTA, L.J. & ADER, R. Continuous recording of maternal behavior in *Rattus norvegicus*. *Anim. Behav.*, 1969, 17, 722-729.

- ADER, R. & GROTA, L.J. Rhythmicity in the maternal behavior of *Rattus norvegicus*. *Anim. Behav.*, 1970, 18, 144-150.
- ADER, R. Effects of early experiences on adult behaviors, physiology, and susceptibility to disease. In S. Kazda & V.H. Denenberg (Eds.) *Postnatal development of phenotype*. Academia: Prague, 1970 (pp. 161-172).
- ADER, R. Review of "Prenatal determinants of behavior," J.M. Joffe, Pergamon: New York, 1969. *Science*, 1970, 167, 857-858.
- ADER, R. Biology and behavior: A redundancy? Review of Glass, DC (Ed.) "Neurophysiology and Emotion." *Biology and Behavior Series, Vol 1*, New York: Rockefeller Univ. Press and Russell Sage Foundation, 1967. *Contemp. Psychol.*, 1970, 15, 350-351.
- FRIEDMAN, S.B., GLASGOW, L.A., & ADER, R. Differential susceptibility to a viral agent in mice housed alone or in groups. *Psychosom. Med.*, 1970, 32, 285-299.
- PLAUT, S.M., GROTA, L.J., ADER, R., & GRAHAM, C.W. Effects of handling and the light-dark cycle on the time of parturition in the rat. *Lab. Anim. Care*, 1970, 3, 447-453.
- GROTA, L.J. & ADER, R. Adrenocortical function in pregnant rats: Handling and the 24-hour rhythm. *Physiol. Behav.*, 1970, 5, 739-471.
- ADER, R. The effect of early experience on the adrenocortical response to different magnitudes of stimulation. *Physiol. Behav.*, 1970, 5, 837-839.
- ADER, R. The development of rhythmic processes. *Activ. Nerv. Super.*, 1970, 12, 138-139.
- ADER, R. & DEITCHMAN, R. Effects of prenatal maternal handling on the maturation of rhythmic processes. *J. Comp. Physiol. Psychol.*, 1970, 71, 492-496.
- ADER, R. Psychological factors in comparative biomedical research. In *Animal models for biomedical research - III*. National Academy of Sciences, Washington, DC, 1970 (pp. 91-102).
- ADER, R. The effects of early life experiences on developmental processes and susceptibility to disease in animals. In J.P. Hill (Ed.) *Minnesota symposium on child psychology*, Univ. Minn. Press: Minneapolis, 1970 (pp. 3-35).
- ADER, R. Effects of early experience and differential housing on susceptibility to gastric erosions in lesion-susceptible animals. *Psychosom. Med.*, 1970, 32, 569-580.
- ADER, R. Experimentally induced gastric lesions: Results and implications of studies in animals. *Adv. Psychosom. Med.*, 1971, 6, 1-39.
- ADER, R. Review of Ambrose A. (Ed.) "Stimulation in early infancy," Academic Press: London, 1969. *Amer. Sci.*, 1971, 59, 495-496.
- ADER, R. Non-genetic prenatal influences on psychological development: Comment. In G.B.A. Stoeltinga & J.J. van der Werff ten Bosch (Eds.) *Normal and abnormal development of brain and behavior*. Leiden University Press: Leiden, 1971 (pp. 245-249).
- ADER, R. & DEITCHMAN, R. Prenatal maternal x-irradiation: Maternal and offspring effects. *J. Comp. Physiol. Psychol.*, 1972, 78, 202-207.

- ADER, R. The significance of early life experiences for the study of development. *Psychiat., Neurol., Neurochir.*, 1972, 75, 79-80.
- ADER, R. & de WIED, D. Effects of lysine vasopressin on passive avoidance learning. *Psychon. Sci.*, 1972, 29, 46-48.
- ADER, R., WEIJNEN, J.A.W.M., & MOLEMAN, P. Retention of a passive avoidance response as a function of the intensity and duration of electric shock. *Psychon. Sci.*, 1972, 26, 125-128.
- BOHUS, B., ADER, R., & de WIED, D. Effects of vasopressin on active and passive avoidance behavior. *Horm. Behav.*, 1972, 3, 191-197.
- GROTA, L.J. & ADER, R. Effects of early experience with electric shock and dexamethasone on avoidance conditioning at adulthood. *Psychon. Sci.*, 1972, 28, 10-12.
- ADER, R. Early experience and susceptibility to disease: The case of gastric ulcers. In S.A. Barnett (Ed.) *Ethology and development*. Clinics in Developmental Medicine No. 47, London: Spastics International, 1973 (pp. 37-51).
- ADER, R. Stability is change. Review of Luce, G.G. "Biological rhythms in human and animal physiology" Dover: New York, 1971, *Contemp. Psychol.*, 1973, 18, 358-359.
- ADER, R. "Strain" differences in illness-induced taste aversion. *Bull. Psychon. Soc.*, 1973, 1, 253-254.
- ADER, R. & GROTA, L.J. Adrenocortical mediation of the effects of early experience. In E. Zimmerman, W.H. Gispen, B.H. Marks, & D. de Wied (Eds.) "Drug effects on neuroendocrine regulation." *Progr. Brain Res.*, Vol. 39. Elsevier: Amsterdam, 1973 (pp. 395-406).
- ADER, R. Effects of early experience on shock- and illness-induced passive avoidance behavior. *Develop. Psychobiol.*, 1973, 6, 547-555.
- FRIEDMAN, S.B., ADER, R., & GROTA, L.J. Protective effect of noxious stimulation in mice infected with rodent malaria. *Psychosom. Med.*, 1973, 35, 535-537.
- PECK, J.H. & ADER, R. Illness-induced taste aversion under states of deprivation and satiation. *Anim. Learn. Behav.*, 1974, 2, 6-8.
- ADER, R. Environmental variables in animal experimentation: The relevance of 24-hour rhythms in the study of animal behavior. In Magalhães (Ed.) *Environmental variables in animal experimentation*. Bucknell Univ. Press: Lewisburg, 1974 (pp. 109-130).
- ADER, R. Letter to the Editor (Behaviorally conditioned immunosuppression). *Psychosom. Med.*, 1974, 36, 183-184.
- GROTA, L.J. & ADER, R. Behavior of lactating rats in a dual-chambered maternity cage. *Horm. Behav.*, 1974, 5, 175-282.
- ADER, R. The role of developmental factors in susceptibility to disease. *Psychiat. Med.*, 1974, 5, 367-376.
- ADER, R. (Ed.) Mother-young relationships: The transfer of information. *Biol. Psychiat.*, 1975, 10, 143-174.

- GROTA, L.J. & ADER, R. The rhythmicity in the maternal behavior of rats. *Biol. Psychiat.*, 1975, 10, 145-148.
- ADER, R. Separation and/or depression. Review of J.P. Scott, & E.S. Senay, (Eds.) "Separation and depression: Clinical and research aspects." Washington, DC: American Association for the Advancement of Science, 1973, *Contemp. Psychol.*, 1975, 20, 466-468.
- ADER, R. Neonatal stimulation and maturation of the 24-hour adrenocortical rhythm. In W. H. Gispen, Tj.B. van Wimersma, B. Bohus, & D. de Wied (Eds) "Hormones, homeostasis and the brain" *Progr. Brain Res, Vol. #2*. Elsevier: Amsterdam, 1975 (pp. 333-341).
- ADER, R. Early experience and hormones: Emotional behavior and adrenocortical function. In B.E. Eleftheriou & R.L. Sprott (Eds.) *Hormonal correlates of behavior*, Vol. 1. Plenum: New York, 1975 (pp. 7-33).
- ADER, R. Competitive and noncompetitive rearing and shock-elicited aggression in the rat. *Anim. Learn. Behav.*, 1975, 3, 337-339.
- ADER, R. & COHEN, N. Behaviorally conditioned immunosuppression. *Psychosom. Med.*, 1975, 37, 333-340.
- - -Reprinted in: Locke, S. et al. (Eds.), *Foundations of psychoneuroimmunology*. Aldine: New York, 1985 (pp. 279-286).
- - -Reprinted in: Eward, A.M. et al. (Eds.), *Toward an integrated medicine: Classics from Psychosomatic Medicine, 1959-1979*. American Psychiatric Press: Washington, DC, 1995 (pp. 363-376).
- ADER, R. Psychosomatic research in animals. In O.W. Hill (Ed.) *Modern trends in psychosomatic medicine - 3*. Butterworths: London, 1976 (pp. 21-41).
- ADER, R. Conditioned adrenocortical steroid elevations in the rat. *J. Comp. Physiol. Psychol.*, 1976, 90, 1156-1163.
- ADER, R. Psychosomatic research in animals. In I.K. Goldberg (Ed.) Behavioral Sciences Tape Library, Sigma, NY, 1976.
- ADER, R. & PECK, J. Early learning and retention of a conditioned taste aversion. *Develop. Psychobiol.*, 1977, 10, 213-218.
- ADER, R. A note on the role of olfaction in taste aversion learning. *Bull. Psychon. Soc.*, 1977, 10, 402-404.
- SCHMALE, A., MORROW, G., & ADER, R. Cancer, leukemia and related diseases: Psychosomatic aspects. In B.B. Wolman (Ed.) *International Encyclopedia of Neurology, Psychiatry, Psychoanalysis, and Psychology*. Aesculapius: New York, 1977 (pp. 11-16).
- ADER, R., GROTA, L.J., & BUCKLAND, R. Effects of adrenalectomy on taste aversion learning. *Physiol. Psychol.*, 1978, 6, 359-361.

- ADER, R. Review of I. Hanin & E. Usdin (Eds.) "Animal models in psychiatry and neurology." Pergamon: New York. *Psychosom. Med.*, 1979, 41, 265-266.
- ADER, R., COHEN, N., & GROTA, L.J. Adrenal involvement in conditioned immunosuppression. *Int. J. Immunopharmac.*, 1979, 1, 141-145.
- COHEN, N., ADER, R., GREEN, N., & BOVBJERG, D. Conditioned suppression of a thymus-independent antibody response. *Psychosom. Med.*, 1979, 41, 487-491.
- SCHMALE, A.H. JR. & ADER, R. (Eds.) The challenge of the biopsychosocial model. *Psychosom. Med.*, 1980, 42 (Suppl.), 77-230.
- ADER, R. & SCHMALE, A.H., JR. George Libman Engel. On the occasion of his retirement. *Psychosom. Med.*, 1980, 42 (Suppl.), 79-101.
- ADER, R. Review of "Methods of biobehavioral research." E.A. Serafetinides (Ed.), Grune & Stratton: New York 1979. *Am. J. Psychiat.*, 1980, 137, 1147-1148.
- ADER, R. Presidential address: Psychosomatic and psychoimmunologic research. *Psychosom. Med.*, 1980, 42, 307-321.
- ADER, R. Animal models in the study of brain, behavior and bodily disease. In H. Weiner, M.A. Hofer, & A.J. Stunkard (Eds.) *Brain behavior and bodily disease*. Raven: New York, 1981, 59, pp. 11-26.
- ADER, R. Behavioral influences on immune responses. In S. Weiss, A. Herd, & B. Fox, (Eds.), *Perspectives on behavioral medicine*. Academic Press: New York, 1981 (pp. 163-182).
- ADER, R. The central nervous system and immune responses: Conditioned immunopharmacologic effects. In J. Hadden, P. Mullen, L. Chedid, & F. Spreafico, (Eds.), *Advances in immunopharmacology*. Pergamon: Oxford, 1981 (pp. 427-434).
- ADER, R. The brain: The little black box for the body's defenses. *Psychol. Today*, 1981, 15, 92.
- ADER, R. & GROTA, L.J. Immunosuppressive effect of tetrahydrocannabinol plus cyclophosphamide. *N. Engl. J. Med.*, 1981, 305, 463.
- ADER, R. An historical account of conditioned immunobiologic responses. In R. Ader, (Ed.), *Psychoneuroimmunology*. Academic Press: New York, 1981 (pp. 321-354).
- ADER, R. & COHEN, N. Conditioned immunopharmacologic responses. In R. Ader (Ed.), *Psychoneuroimmunology*. Academic Press: New York, 1981 (pp. 281-320).
- ADER, R. (Ed.) *Psychoneuroimmunology*. Academic Press: New York, 1981.
- COHEN, N. & ADER, R. Antibodies and learning: A new dimension. In C. Steinberg & I. Lefkovits (Eds.), *The immune system*. Vol. 1. Karger: Basel, 1981 (pp. 51-56).
- ADER, R. & SOLOMON, G.F. Immunology and behavior in aging. In D.L. Parron, F. Solomon, & J. Rodin (Eds.), *Health, behavior and aging*. National Acad. Press: Washington, DC, 1981 (pp. 85-97).

- ADER, R. The effects of 'stress' and conditioning on immune responses. In W.E. Fann, (Ed.), *Phenomenology and treatment of psychophysiological disorders*. Spectrum Press: Jamaica, NY, 1982, (pp. 89-105).
- ADER, R. Review of "Stress and cancer." K. Bammer & B. Newberry (Eds.), Toronto: C.J. Hogrefe, 1981. *Psychosom. Med.*, 1982, 44, 297-298.
- BOVBJERG, D., ADER, R., & COHEN, N. Behaviorally conditioned suppression of a graft-vs-host response. *Proc. Nat. Acad. Sci.*, 1982, 79, 583-585.
- ADER, R. & COHEN, N. Behaviorally conditioned immunosuppression and murine systemic lupus erythematosus. *Science*, 1982, 215, 1534-1536.
- ADER, R., COHEN, N., & BOVBJERG, D. Conditioned suppression of humoral immunity in the rat. *J. Comp. Physiol. Psychol.*, 1982, 96, 517-521.
- BOVBJERG, D., COHEN, N., & ADER, R. The central nervous system and learning: A strategy for immune regulation. *Immunol. Today*, 1982, 3, 287-291.
- BUNNEY, W., JR., SHAPIRO, A., ADER, R., ET AL. Panel report on stress and illness. In G.R. Elliott & C. Eiskorfer (Eds.), *Stress and human health: Analysis and implications of research*. Springer: New York, 1982 (pp. 255-337).
- ADER, R., COHEN, N., & BOVBJERG, D. Immunoregulation by behavioral conditioning. *Trends Pharmacol. Sci.*, 1983, 4, 78-80.
- ADER, R. Developmental psychoneuroimmunology. *Develop. Psychobiol.*, 1983, 16, 251-267.
- ADER, R. Behavioral conditioning and immunity. In N. Fabris, E. Garaci, J. Hadden, & N.A. Mitchison (Eds.), *Immunoregulation*, Plenum: New York, 1983 (pp. 283-313).
- ADER, R. & COHEN, N. Behaviorally conditioned immunosuppression: Effects on the course of autoimmune disease in New Zealand hybrid mice. In J.W. Hadden, L. Chedid, P. Dukor, F. Spreafico, & D. Willoughby (Eds.), *Advances in immunopharmacology - 2*, Pergamon: New York, 1983 (pp. 479-484).
- BOVBJERG, D., COHEN, N., & ADER, R. Conditioned immune responses: Letter to the editor. *Immunol. Today*, 1983, 4, 63-64.
- ADER, R. Behavioral conditioning and the immune system. In L. Temoshok, C. Van Dyck & L.S. Zegans (Eds.), *Emotions in health and illness*. Grune & Stratton: New York, 1983, (pp. 137-151).
- ADER, R. & COHEN, N. Behavior and the immune system. In W.D. Gentry (Ed.), *Handbook of behavioral medicine research*. Guilford Press: New York, 1984, (pp. 117-173).
- BOVBJERG, D., ADER, R. & COHEN, N. Acquisition and extinction of conditioned suppression of a graft-vs-host response in the rat. *J. Immunol.*, 1984, 132, 111-113.
- ADER, R. Psychoneuroimmunology. In R. Ballieux, J.F. Fielding, & A. L'Abbate (Eds.), *Breakdown in human adaptation to stress: Towards a multidisciplinary approach*. Martinus Nijhoff: The Netherlands, 1984 (pp. 653-670).
- ADER, R. Conditioned modulation of immune responses (in Russian). *Human Physiol.*, 1984, 10, 211-220.

- LOCKE, S., ADER, R., BESEDOVSKY, H., HALL, N., SOLOMON, G. & STROM, T. (Eds.), *Foundations of psychoneuroimmunology*. Plenum: New York, 1985.
- ADER, R. Conditioned immunopharmacologic effects in animals: Implications for a conditioning model of pharmacotherapy. In L. White, B. Tursky, & G. Schwartz (Eds.), *Placebo: Theory, research and mechanisms*. Guilford: New York, 1985 (pp. 306-323).
- ADER, R. Behaviorally conditioned modulation of immunity. In R. Guillemin, M. Cohn & T. Melnechuck (Eds.), *Neural modulation of immunity*. Raven: New York, 1985 (pp. 55-66).
- ADER, R. Conditioned taste aversion and immunopharmacology. *Ann. N.Y. Acad. Sci.*, 1985, 443, 232-307.
- ADER, R. & COHEN, N. High time for psychoimmunology. *Nature*, 1985, 315, 103-104.
- ADER, R. & COHEN, N. CNS-immune system interactions: Conditioning phenomena. *Behav. Brain Sci.*, 1985, 8, 379-426.
- ADER, R., Psychoneuroimmunologic contributions to the study of rheumatic diseases. In S. Gupta & N. Jalal (Eds.), *Immunology of rheumatic diseases*. Plenum: New York, 1985 (pp. 669-696).
- ADER, R. Behavior and the immune system: Conditioning effects (in German). In Von Uexkull, T. (Ed.), *Lehrbuch der Psychosomatischen Medizin*. Urban & Schwarzenberg: Munich, 1986 (pp. 171-183).
- BOVBJERG, D., & ADER, R. The central nervous system and learning: Feedforward regulation of immune responses. In I. Berczi (Ed.), *Pituitary function and immunity*. CRC Press: Boca Raton, 1986 (pp. 251-259).
- ADER, R. Psychoneuroimmunology research: Developmental perspectives. In N. Krasnegor, J. Arasteh & M. Cataldo (Eds.), *Child health behavior*. Wiley: New York, 1986 (pp. 115-128).
- BOVBJERG, D., ADER, R., & COHEN, N. Long-lasting enhancement of the delayed-type hypersensitivity response to heterologous erythrocytes in mice after a single injection of cyclophosphamide. *J. Clin. Exp. Immunol.*, 1986, 66, 539-550.
- ADER, R. & COHEN, N. Conditioned responses are indeed conditioned. *Behav. Brain Sci.*, 1986, 9, 760-763.
- ADER, R., COHEN, N., & GROTA, L.J. Adrenocortical steroids in the conditioned suppression and enhancement of immune responses. In I. Berczi (Ed.), *Hormones and immunity*. MTP Press: London, 1987 (pp. 231-246).
- ADER, R., GROTA, L.J. & COHEN, N. Conditioning phenomena and immune function. *Ann. NY Acad. Sci.*, 1987, 496, 532-544.
- COHEN, N., ADER, R. & BOVBJERG, D. Conditioned effects of cyclophosphamide: Enhancement of delayed-type hypersensitivity in the mouse. *Ann. N.Y. Acad. Sci.*, 1987, 496, 533-560.
- ADER, R. Evidence for interrelationship between the CNS, behavior, and the immune system. *Immunopath. Immunotherap. Letter*, 1987, 2, 6-7.

- ADER, R., COHEN, N., & FELTEN, D.L. Brain, behavior, and immunity. *Brain, Behav. Immun.*, 1987, 1, 1-6.
- BOVBJERG, D., COHEN, N., & ADER, R. Behaviorally conditioned enhancement of delayed-type hypersensitivity in the mouse. *Brain, Behav. Immun.*, 1987, 1, 64-67.
- ADER, R. Communication between the brain and the immune system. Review of N.P. Plotnikoff, R.E. Faith, A.J. Murgu & R. Good (Eds.), "Enkephalins and endorphins: Stress and the immune system." *Contemp. Psychol.*, 1987, 32, 728-729.
- ADER, R. Conditioned immune responses: Adrenocortical influences. *Prog. Brain Res.*, 1987, 72, 79-90.
- ADER, R. The immunomodulatory effects of behavior. *Mem. Inst. Oswaldo Cruz*, 1987, 82 (Suppl. II).
- ADER, R. Clinical implications of psychoneuroimmunology, *J. Develop. Behav. Ped.*, 1987, 8, 357-358.
- GROTA, L.J., ADER, R., & COHEN, N. Taste aversion learning in autoimmune Mrl-lpr/lpr and Mrl ++ mice. *Brain, Behav. Immun.*, 1987, 1, 238-250.
- COHEN, N. & ADER, R. Immunomodulation by classical conditioning. In T.P. Bridge, et al. (Eds.), *Psychological neuropsychiatric and substance abuse aspects of AIDS*. Raven: NY, 1988, (pp. 199-202).
- ADER, R., WEINER, H. & BAUM, A. (Eds.). *Experimental foundations of behavioral medicine: Conditioning approaches*. Erlbaum: New Jersey, 1988.
- ADER, R. The placebo effect as a conditioned response. In R. Ader, H. Weiner & A. Baum (Eds.), *Experimental foundations of behavioral medicine: Conditioning approaches*. Erlbaum: New Jersey, 1988 (pp. 47-66).
- ADER, R. Conditioning effects in pharmacotherapy and the incompleteness of the double-blind, crossover design. *Integ. Psychiat.*, 1989, 6, 165-170.
- MOYNIHAN, J.A., KOOTA, D., BRENNER, G., COHEN, N., & ADER, R. Repeated intraperitoneal injections of saline attenuate the antibody response to a subsequent intraperitoneal injection of antigen. *Brain, Behav. Immun.*, 1989, 3, 90-96.
- ADER, R. Review of Kurstad, E., Lipowski, Z.J., & Morozov, P.V. (Eds.), "Viruses, immunity and mental disorders." Plenum: New York, 1987. *J. Nerv. Ment. Dis.*, 1989, 499-500.
- GROTA, L.J., SCHACHTMAN, T.R., MOYNIHAN, J.A., COHEN, N., & ADER, R. Voluntary consumption of cyclophosphamide by Mrl mice. *Brain, Behav. Immun.*, 1989, 3, 263-273.
- ADER, R. Conditioned immune responses and pharmacotherapy. *Arthr. Care Res.*, 1989, 2, 558-564.
- ADER, R. Behavior in autoimmune mice. In J.G. Carlson & A.R. Seifert (Eds.), *Self-regulation and health*. Plenum: New York, 1990 (pp. 163-181).

- MOYNIHAN, J.A., ADER, R., GROTA, L.J., SCHACHTMAN, T.R., & COHEN, N. Effects of stress on the development of immunological memory following low dose antigen priming in mice. *Brain, Behav. Immun.*, 1990, 4, 1-12.
- ADER, R., FELTEN, D.L., & COHEN, N. Interactions between the brain and the immune system. *Ann. Rev. Pharmacol. Toxicol.*, 1990, 30, 561-602.
- ADER, R. Immune-derived modulation of behavior. *Ann. NY Acad. Sci.*, 1990, 594, 280-288.
- MOYNIHAN, J., BRENNER, G., KOOA, D., BRENEMAN, S., COHEN, N. & ADER, R. The effects of handling on antibody production, mitogen responses, spleen cell numbers, and lymphocyte populations. *Life Sciences*, 1990, 46, 1937-1944.
- HARDY, C.A., QUAY, J., LIVNAT, S. & ADER, R. Altered T-lymphocyte response following aggressive encounters in mice. *Physiol. Behav.*, 1990, 47, 1245-1251.
- GROTA, L.J., ADER, R., MOYNIHAN, J. & COHEN, N. Voluntary consumption of cyclophosphamide by nondeprived MRL-lpr/lpr and MRL +/+ mice. *Pharm., Biochem. Behav.*, 1990, 37, 527-530.
- BRENNER, G., COHEN, N. ADER, R., & MOYNIHAN, J.A. Increased pulmonary metastases in mice following handling. *Life Sciences* 1990, 47, 1813-1819.
- COHEN, N., MOYNIHAN, J., GROTA, L.J. & ADER, R. Behavioral and immunological evidence of reciprocal signaling between the immune system and the central nervous system. In R.C.A. Frederickson, J.L. McGaugh & D.L. Felten (Eds.), *Peripheral signaling of the brain: Neural-immune and cognitive function*. Hogrefe & Huber: Toronto, 1991 (pp. 37-54).
- ADER, R., FELTEN, D.L., & COHEN, N. (Eds.). *Psychoneuroimmunology-Second Edition*. Academic Press: New York, 1991.
- FELTEN, D.L., COHEN, N., ADER, R., FELTEN, S.Y., CARLSON, S.L., & ROSZMAN, T.L. Central neural circuits involved in neural-immune interactions. In R. Ader, D.L. Felten, & N. Cohen (Eds.), *Psychoneuroimmunology-Second Edition*. Academic Press: New York, 1991 (pp. 3-25).
- ADER, R. & COHEN, N. The influence of conditioning on immune responses. In R. Ader, D.L. Felten, & N. Cohen (Eds.), *Psychoneuroimmunology-Second Edition*. Academic Press: New York, 1991 (pp. 611-646).
- ADER, R., GROTA, L.J., MOYNIHAN, J.A., & COHEN, N. Behavioral adaptations in autoimmune disease-susceptible mice. In R. Ader, D.L. Felten, & N. Cohen (Eds.), *Psychoneuroimmunology - Second Edition*. Academic Press: New York, 1991 (pp. 685-708).
- ADER, R. & COHEN, N. Conditioning of the immune response. *Netherlands J. Med.*, 1991, 39, 263-273.
- ADER, R. & COHEN, N. Psychoneuroimmunology: Behavioral effects on immunity. *Encyclopedia of human biology, Vol. 6*. Academic Press: New York, 1991 (pp. 319-327).
- ADER, R. Psychoneuroimmunology. *Med. Encount.*, 1992, 8, 9-10.

- ADER, R. Behavioral responses to cyclophosphamide in animals with autoimmune disease. In N. Schneiderman, P. McCabe, & A. Baum (Eds.), *Stress and disease processes: Perspectives in behavioral medicine*. L. Erlbaum: New Jersey, 1992 (pp. 93-102).
- MOYNIHAN, J.A., BRENNER, G.J., ADER, R., & COHEN, N. The effects of handling adult mice on immune responses. *Ann. NY Acad. Sci.*, 1992, 650, 262-267.
- ADER, R. & COHEN, N. Conditioned immunopharmacologic effects on cell-mediated immunity. *Int. J. Immunopharmac.*, 1992, 14, 323-327.
- ADER, R. On the clinical relevance of psychoneuroimmunology. *Clin. Immunol. Immunopath.*, 1992, 64, 6-8.
- OLNESS, K. & ADER, R. Conditioning as an adjunct in the pharmacotherapy of lupus erythematosus: A case report. *J. Develop. Behav. Pediat.*, 1992, 13, 124-125.
- COHEN, N., MOYNIHAN, J.A., & ADER, R. Behavioral regulation of immunity. In I.M. Roitt & P.J. Delves (Eds.), *Encyclopedia of Immunology*. Saunders: London, 1992, (pp. 222-225).
- ADER, R. The search for simple main effects is naive. A reply to Lazarus. *Advances*, 1992, 8, 8-9.
- ADER, R. Behaviorally conditioned modulation of immune function. In S. Araki, K. Sonoda, & D. Baker (Eds.), *Behavioral medicine: An integrated biobehavioral approach to health and illness*. Elsevier: Amsterdam, 1992 (pp. 23-29).
- SUCHMAN, A.L. & ADER, R. Classical conditioning and placebo effects in crossover studies. *Clin. Pharmacol. Therap.*, 1992, 52, 372-377.
- ADER, R. Editorial: Conditioned responses in pharmacotherapy research. *Psychol. Med.*, 1993, 23, 297-299.
- COCKE, R., MOYNIHAN, J.A., COHEN, N., GROTA, L.T., & ADER, R. Exposure to alarm chemosignals alters immune responses in BALB/c mice. *Brain, Behav. Immun.*, 1993, 7, 36-46.
- ADER, R. & COHEN, N. Psychoneuroimmunology: Conditioning and stress. *Ann. Rev. Psychol.*, 1993, 44, 53-85.
- KARP, J.D., MOYNIHAN, J., & ADER, R. Effects of differential housing on the primary and secondary antibody responses of male C57BL/6 and BALB/c mice. *Brain, Behav. Immun.*, 1993, 7, 326-333.
- ADER, R., KELLY, K., MOYNIHAN, J.A., GROTA, L.J., & COHEN, N. Conditioned enhancement of antibody production using antigen as the unconditioned stimulus. *Brain, Behav. Immun.*, 1993, 7, 334-343.
- ADER, R. Psychosomatic medicine rides again. *Harvard Rev. Psychiat.*, 1994, 1, 296-297.
- MOYNIHAN, J.A., COHEN, N., & ADER, R. Stress and immunity: Studies in animals. In B. Scharrer, E.M. Smith, & G.B. Stefano (Eds.), *Neuropeptides and immunity*. Springer-Verlag: New York, 1994 (pp. 120-138).
- COHEN, N., ADER, R., & FELTEN, D.L. Psychoneuroimmunology. How the brain, endocrine system, and immune system interact in health and disease. In L. Sigel, L.H. Ron, & P. Flood

- (Eds.), *Basic and clinical immunology: An integrated approach*. McGraw-Hill: New York, 1994 (pp. 465-494).
- ADER, R. Book Review, "The psychoimmunology of cancer." *Lancet*, 1994, 344, 1489-1490.
- MOYNIHAN, J.A., BRENNER, G.J., COCKE, R., KARP, J.D., BRENNEMAN, S.M., DOPP, J.M., ADER, R., COHEN, N., GROTA, L.J., & FELTEN, S.Y. Stress-induced modulation of immune function in mice. In R. Glaser & J. Kiecolt-Glaser (Eds.), *Handbook of human stress and immunity*. Academic Press: New York, 1994 (pp. 1-22).
- COHEN, N., MOYNIHAN, J.A., & ADER, R. Pavlovian conditioning of the immune system. *Int. Arch. Allerg. Immunol.*, 1994, 105, 101-106.
- ADER, R. & COHEN, N. Psychoneuroimmunology. *Encyclopedia of human biology*. Academic Press: New York, 1995 (pp. 100-101).
- ADER, R. Foreword. In B.E. Leonard & K. Miller, (Eds.), *Stress, the immune system, and psychiatry*. Wiley: Sussex, England, 1995 (pp. ix-xiii).
- - Reprinted in J.L. Bonet & C. Luchina (Eds.), *Psiconeuroimmunoendocrinologia. Revista Argentina de Psiquiatria*, 1995, 6, 175-177.
- ADER, R., COHEN, N., & FELTEN, D. Psychoneuroimmunology: Interactions between the nervous system and the immune system. *Lancet*, 1995, 345, 99-103.
- ADER, R. Historical perspectives on psychoneuroimmunology. In H. Friedman, T.W. Klein, & A.L. Friedman (Eds.), *Psychoneuroimmunology, stress and infection*. CRC Press: Boca Raton, 1995 (pp. 1-21).
- ADER, R. On psychoneuroimmunology. *Infect. Immunol. Nwsltr.*, 1995, No. 4 (2,4).
- ADER, R. Psychoneuroimmunology. *McGraw Hill yearbook of science and technology*. McGraw-Hill: New York, 1995 (pp. 339-340).
- GIANG, D.W., GOODMAN, A.D., SCHIFFER, R.B., MATTSON, D.H., PETRIE, M., COHEN, N., & ADER, R. Conditioning of cyclophosphamide-induced leukopenia in humans. *J. Neuropsychiat. Clin. Neurosci.*, 1996, 8, 194-201.
- ADER, R., MADDEN, K., FELTEN, D., BELLINGER, D.L., & SCHIFFER, R.B., Psychoneuroimmunology: Interactions between the brain and the immune system. In B.S. Fogel, R.B. Schiffer & S.M. Rao (Eds.), *Neuropsychiatry*. Williams & Wilkins: Philadelphia, 1996 (pp. 193-221).
- BUSKE-KIRSCHBAUM, A., GROTA, L.J., KIRSCHBAUM, C., BIENEN, T., MOYNIHAN, J., ADER, R., BLAIR, M.L., HELLHAMMER, D.H., & FELTEN, D.L. Conditioned increase in peripheral blood mononuclear cell (PBMC) number and corticosterone secretion in the rat. *Pharmacol. Biochem. Behav.*, 1996, 55, 27-32.
- MOYNIHAN, J.A. & ADER, R. Psychoneuroimmunology. *Psychosom. Med.*, 1996, 58, 546-558.
- ADER, R. On the teaching of psychoneuroimmunology. *Brain Behav. Immun.*, 1996, 10, 315-323.

- ADER, R. Processes underlying placebo effects: The preeminence of conditioning. *Pain Forum*, 1997, 6, 56-58.
- ADER, R. The role of conditioning in pharmacotherapy. In A. Harrington (Ed.), *The Placebo: An interdisciplinary exploration*. Harvard Univer. Press: Cambridge, 1997, 138-165.
- KARP, J. D., MOYNIHAN, J. A., & ADER, R. Psychosocial influences on immune responses to HSV-1 infection in BALB/c mice. *Brain Behav. Immun.*, 1997, 11, 47-62 .
- ADER, R. & COHEN, N. Psychoneuroimmunology. In *Encyclopedia of Human Biology, Second Edition*. Academic Press: New York, 1997, 267-275.
- COHEN, N., KARP, J.D., ADER, R., & MOYNIHAN, J.A. Behaviorale regulation der immunitat. *Zeit. Med. Psychol.*, 1997, 2, 86-94.
- ADER, R. & COHEN, N. Psychoneuroimmunology. In H.S. Friedman (Ed.), *Encyclopedia of mental health*. Academic Press: New York, 1997 (pp. 315-323).
- ADER, R. Introducción. In P. Arias, E. Aretz, J. Bonet et al. (Eds.), *Estrés y procesos de enfermedad: Psiconeuroimmunoendocrinología. Modelos de integración mentcuerpo*. Editorial Biblos: Buenos Aires , 1998 (pp. 17-24).
- COHEN, N., MOYNIHAN, J.A., & ADER, R. Behavioral regulation of immunity. In I.M. Roitt & P.J. Delves (Eds.), *Encyclopedia of Immunology*. Saunders: London, 1998 (pp. 336-340).
- ADER, R. Psychoneuroimmunology. In G. Adelman & B.H. Smith (Eds.), *Encyclopedia of neuroscience. Second Edition*. Elsevier: Amsterdam, 1999 (pp. 1731-1734).
- GLASER, R., FRIEDMAN, S.B., SMYTH, J.A., ADER, R., BIJUR, P. BRUNEL, P., COHEN, N., KRILOV, L.R., LIFRAK, S.T., STONE, A., & TOFLER, P. The differential impact of training stress and final examination stress on herpes virus latency at the United States Military Academy at West Point. *Brain Behav. Immun.*, 1999, 13, 240-251.
- MOYNIHAN. J.A., KARP, J.D., COHEN, N., & ADER, R. Immune deviation following stress odor exposure: Role of endogenous opioids. *J. Neuroimmunol.*, 2000, 102, 145-153.
- ADER, R. The placebo effect: If it's all in your head, does that mean you only think you feel better? *Adv. Mind-Body Med.*, 2000, 16, 7-11.
- ADER, R. Classical conditioning in the treatment of psoriasis. *CUTIS*, 2000, 66, 370-372.
- ADER, R. On the development of psychoneuroimmunology, *Europ. J. Pharmacol.*, 2000, 405, 167-176.
- ADER, R. Psychoneuroimmunology. *Curr. Direct. Psychol. Sci.*, 2001, 10, 94-98.
- ADER, R., FELTEN, D.L., & COHEN, N. (Eds.), *Psychoneuroimmunology, Third Edition*. Academic Press, New York, 2001.
- ADER, R. & COHEN, N. Conditioning and immunity. In R. Ader, D.L. Felten, & N. Cohen, N. (Eds.), *Psychoneuroimmunology, Third Edition*. Academic Press, New York, 2001 (v. 2, pp. 3-34).

- LARSON, M.R., ADER, R., & MOYNIHAN, J.A. Heart rate, neuroendocrine, and immunological reactivity to an acute laboratory stressor. *Psychosom. Med.*, 2001, 63, 493-501.
- MADDEN, K.S., BOEHM, G.W., LEE, S.C., GROTA, L.J., COHEN, N., & ADER, R. One-trial conditioning of the antibody response to hen egg lysozyme in rats. *J. Neuroimmunol.*, 2001, 113, 236-239.
- ADER, R. Much ado about nothing: A comment on 'Is the placebo powerless?' *Advances*, 2001, 17, 293-295.
- ADER, R. In memoriam: George Freeman Solomon (1931-2001). *Brain, Behav. Immun.*, 2001, 15, 277-279.
- ADER, R. Psychoneuroimmunology. In N.J. Smellser & P.B. Baltes (Eds.), *International encyclopedia of the social and behavioral sciences*. Oxford, England: Elsevier Science, 2002 (Vol 18, pp. 12422-12428).
- ADER, R. Biopsychosocial research: Psychoneuroimmunology. In R.M. Frankel, T.E. Quill & S.H. McDaniel (Eds.), *The biopsychosocial model*. Univ. Rochester Press: Rochester, 2003 (pp. 95-110).
- ADER, R. Conditioned immunomodulation: Research needs and directions. *Brain Behav. Immun.*, 2003, 17 (Suppl.), S51-S57.
- ADER, R. Psychosocial factors and the therapeutic response to drugs. *Prevention and Treatment*, 2003, 6, Article 2. <http://www.journals.apa.org/prevention/volume6,Article 2>.
- ADER R. Psychoneuroimmunology: Evidence for brain-immune system interactions. *Audio Consult. Integ. Med.*, 2003, 6 (No. 7).
- ADER R. Psychoneuroimmunology: Clinical relevance. *Audio Consult. Integ. Med.*, 2003, 6 (No. 8).
- ADER, R. Psychoneuroimmunology. In G. Adelman & B.H. Smith (Eds.), *Encyclopedia of neuroscience. Third Edition*. Elsevier: Amsterdam, 2004.
- MOYNIHAN, J.A., LARSEN, M.R., TREANOR, J., DUBERSTEIN, P.R., POWER, A., SHORE, B. & ADER, R. Psychosocial factors and the response to influenza vaccination in older adults. *Psychosom. Med.* 2004, 66, 950-953.
- ADER, R. On the clinical relevance of psychoneuroimmunology. In K. Vedhara & M. Irwin (Eds.), *Introduction to human psychoneuroimmunology*. Oxford Univ. Press, Oxford, 2005 (343-349).

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