

CURRICULUM VITAE: IRVING KUSHNER

I. Education and Training

- 1950 B.A., with honors, Columbia College, Columbia University, New York
1954 M.D., cum laude, Washington University School of Medicine, St. Louis, Missouri
1954-55 Intern in Medicine, Grace-New Haven Community Hospital, New Haven, Connecticut
1955-57 Clinical Associate, Laboratory of Clinical Investigation, NIAID, NIH, USPHS, Bethesda, Maryland
1957-58 Assistant Resident, 2nd and 4th (Harvard) Medical Services, Boston City Hospital, Boston, Massachusetts
1958-59 Public Health Service Research Fellow of the National Institutes of Allergy and Infectious Diseases (Cleveland Metropolitan General Hospital)
1959-62 Research Fellow of the Helen Hay Whitney Foundation (Cleveland Metropolitan General Hospital)
1960-61 Assistant Resident in Medicine, Cleveland Metropolitan General Hosp., Cleveland, OH
1962-63 Fellow, Laboratoire d'Immunochimie, Institut de Recherches Scientifiques sur le Cancer, Centre National de Recherche Scientifique, Villejuif, (Seine) France
1976 Senior International Fellow of the Fogarty International Center of the NIH, (Unité de Recherches de Physiopathologie Hépatique, INSERM U 24, Hôpital Beaujon, Clichy (Seine), France) June-September

II. Academic & Professional Appointments

(Appointments between 1958 and 1973 at Western Reserve and Case Western Reserve University)

- 1958-59 Demonstrator in Medicine
1959-61 Instructor in Medicine
1961-64 Senior Instructor in Medicine
1963-73 Director, Arthritis Clinic, Cleveland Metropolitan General Hospital
1964-69 Assistant Professor of Medicine
1969-73 Associate Professor of Medicine
1973-74 Professor of Medicine; Chairman, Division of Rheumatology, West Virginia University
1974- Professor of Medicine, Case Western Reserve University
1974-85 Director, Division of Rheumatology, Cleveland Metropolitan General Hospital
1974-89 Associate Director, Department of Medicine, Cleveland Metropolitan General Hospital
1985- Professor of Pathology, Case Western Reserve University
1985-91 Medical Director, Highland View Rehabilitation Center
1994-97 Acting Director, Division of Rheumatology, MetroHealth Medical Center

III. Committees & Administrative Responsibilities

A. MetroHealth Medical Center (formerly Cleveland Metropolitan General/Highland View Hospital)

- 1966-73 Coordinator of Chronic Illness
1966-69 Utilization Committee
1974-75 Utilization Committee (departmental committee chairman)
1960-67 Infection Committee (chairman 1966-67)
1969-71 Agenda and Program Committee, Medical Staff (chairman)
1970-73 Transplantation Committee (chairman)
1972-73 Master Planning Committee, Program for Consolidation of the County Hospitals
1977-78 Committee to Plan Transfer of Highland View Professional Programs to West Side Campus (chairman)
1974-83 Numerous departmental ad hoc committees (chairman)
1980-81 President, Medical Staff
1980-85 Governing Board, Professional Staff Plan, Department of Medicine
1985 Search Committee, Director, Dept. of Physical Medicine and Rehabilitation
1986-88 Special Advisory Committee to the President
1989-93 Department of Medicine Executive Committee
1990-91 Search Committee, Department of Medicine, Director of Geriatrics (cochairman)

1990 Task Force, Human Investigation Committee
1991-93 Research Committee

B. Case Western Reserve University School of Medicine

1970-73 Ad hoc Committee to rewrite the by-laws of the Medical School
1971-73 Educational Counselor - senior medical students
1974-75 Options Committee - Department of Medicine
1975-76 Committee on Biomedical Sciences
1974-85 Ecker Lecture Committee, Lectureships Committee
1975-80 Dean's Committee on the VA Hospital
1976-80 Search Committee, Chairman Department of Psychiatry, CMGH
1976-78 Executive Committee for Extramural Medical Education, Department of Medicine
1979-80 Search Committee, Director, Department of Medicine, Cleveland VA Medical Center (chairman)

1980-82 Committee on Continuing Medical Education
1982-84 Committee on Faculty Appointment, Promotion and Tenure
1978-2000 Associate Director, Northeastern Ohio Multipurpose Arthritis Center
1981-86 Student Counselor
1984 Committee to consider whether rehabilitation medicine should be established as an academic department (chairman)

1985-88 Rehabilitation Medicine Committee (chairman)
1988-91 NIDRR Rehabilitation Engineering Center; University Advisory Committee
1989 Search Committee, Chairman, Department of Orthopaedics, CWRU; Director Department of Orthopaedics, University Hospitals

1990 Biomedical Research Support Grant Committee
1990 Immunology - Allergy Research Task Force
1990-92 Community Advisory Board - University Center on Aging and Health
1992-93 Search Committee, Director, Department of Medicine, MHMC

IV. Study Sections and Advisory Committees

A. NIH Study Sections and Site Visit Teams

1. Special study sections

- a. June 23, 1987 - Outside reviewer, NIH Pathobiological Chemistry Study Section
- b. March 31, 1988 - NIAMDD: (chairman of site visit team), Boston University
- c. July 27-28, 1988 - NIAMDD: (chairman of site visit team), Program Project, Massachusetts General Hospital
- d. Oct. 11-12, 1990 - Special reviewer, Grant review - NIH Medical Biochemistry Study Section
- e. July 13-15, 1992 - NIAMSD: (chairman of site visit team), University of California at San Diego
- f. July 16, 1993 - Outside reviewer, NIAMSD, Causal mechanisms in SLE - special study section for RFA.
- g. Nov. 29, 1993 - NIAMSD, chairman, review group, program project (UCSD)
- h. July 28, 1994 - NIAMSD, chairman, special review group for RFA-Fibromyalgia grants

2. Multipurpose Arthritis Center site visits

- a. March 1980: University of Alabama in Birmingham
- b. June 1985: SUNY Downstate, Brooklyn, N.Y.
- c. June 1986: University of Alabama in Birmingham (chairman)
- d. July 1991: Northwestern University, Chicago, IL (chairman)

B. The Arthritis Foundation (National)

Committee on Public Education 1974-82 (vice-chairman 1976-80)
Review Panel for Medical and Scientific Materials (chairman) 1978-81

Public Relations Committee 1981-82
House of Delegates 1982, 1984
Center Grant Subcommittee of the Research Committee 1984-1987
Patient and Community Services, National Subcommittee 1993-
Committee on Educational Monograph and Videotape 1994-1995

C. Ohio Department of Health, Arthritis Care and Education Program
Advisory Committee 1981-1991

D. Arthritis Foundation, Northeastern Ohio Chapter
Medical Advisory Committee 1966-73, 1974-88 (chairman 1979-1983), 1989-1993
Board of Trustees 1974-87, 1989-1991
Research Grants Review Committee (chairman) 1976
Vice President 1977-80, 1986
Project Director for Northeast Ohio Arthritis Care and Education Program,
State of Ohio Department of Health 1981-85

E. Ohio Lupus Foundation, Inc.
Medical Advisory Board 1978-87 (chairman 1978-79)

F. Advisory Panels

1. McNeil Pharmaceutical, "Current Advances in Inflammation and Arthritis" - Pittsburgh, PA - November 17-18, 1989
2. Upjohn Company, Symposium: "The Effects of Flurbiprofen on the Immune Response"- Sonoma, CA - September 15, 1990
3. Pfizer Inc., Central Research Advisory Board "Tenidap and Acute Phase Proteins"-Seattle, WA - October 28, 1990; April 30, 1993
4. University of Texas, Southwestern Medical Center, Dallas -Steering committee for the development of the arthritic care algorithm- June-Oct, 1995
5. Merck and Co., National Consultant "The Management of Arthritis and Pain" - Denver, CO - October 16-18, 1998

G. Ph.D. Dissertation Defense - reviewer

1. The Rockefeller University, Office of Graduate Studies - March 9, 1988
2. State University of New York at Buffalo, Roswell Park Graduate Division - April 9, 1991

H. Graduate Students Pre-thesis Committee and Co-Advisor

1991-1995	Dongxiao Zhang, Dept. of Biochemistry, CWRU
1993-1998	Christine Hilbert, Dept. of Biochemistry, CWRU
1995-1998	Ming Sun, Dept. of Biochemistry, CWRU
1997-2002	Hyunjoo Cha, Dept. of Biochemistry, CWRU
1998-2005	Steven Black, Dept. of Biochemistry, CWRU
2002-	Duprane Young, Dept. of Biochemistry, CWRU

I. Boards of Trustees and Visiting Committees

1. The Harold E. Brittingham Memorial Library, Board of Trustees – 2000-
2. Cleveland Health Sciences Library, visiting committee - 2000-
3. Cleveland Medical Library Association, Board of Trustees - 2000- ; Secretary-Treasurer, 2005-2006; Vice President, 2006-2007.
4. The Print Club of Cleveland, Board of Trustees - 2001-

V. Specialty Board Certification

Board of Internal Medicine - November 22, 1963
American Board of Rheumatology - October 19, 1976

VI. Professional Societies

American Association for the Advancement of Science
American Association of Immunologists
American College of Physicians (Fellow-1969)
American Federation for Clinical Research
American College of Rheumatology (formerly American Rheumatism Association)
1980 President, Central Region
1982-87 Affiliated Local Societies Committee
1985, 1987 Subsection Chairperson, Program Committee
American Society for Investigative Pathology
Central Society for Clinical Research
Cleveland Rheumatism Society (President 1969-70)
Gerontological Society of America
Groupe d'Etude et de Recherche sur les Marqueurs de l'Inflammation, Lyon, France (President 1985-1990)
Society for Experimental Biology and Medicine
The New York Academy of Sciences
International Cytokine Society
Society for Investigative Pathology

VII. Honors & Awards

phi beta kappa 1950
alpha omega omega 1954
Research Fellow of the Helen Hay Whitney Foundation, 1959-62
National Volunteer Award, The Arthritis Foundation, 1982
Listed, American Men and Women of Science, 12th Edition, 1972 to present
Listed, Who's Who in Frontier Science and Technology, First Edition, 1984 to present
Listed, Dictionary of International Biography, Volume XIX, 1985
Listed, Who's Who in the Midwest, 1985
Listed, Contemporary Authors, 1986
Listed, Who's Who in American Education – 1992-93
Author of Citation Classic cited in Current Contents, July 13, 1992 and April 19, 1993
Master, American College of Rheumatology, 1995

VIII. Ad Hoc Reviewer

A. Ad Hoc Reviewer for Journals: (since 1976)

1976	Ann Int Med		
1977	J Lab Clin Med	Am Rev Resp Dis	
1978	J Lab Clin Med		
1979	Am Rev Resp Dis	Ann Int Med	J Lab Clin Med
	J Rheumatol x 2	Arth & Rheum x 2	
1980	Am Heart J	JAMA	Arth & Rheum
1981	J Immunol x 4	J Rheumatol	Proc Natl Acad Sci
	Arth & Rheum x 3	Ann Int Med	
1982	Arth & Rheum	J Immunol	Immunol Commun
	Ann Int Med	J Lab Clin Med	
1983	Science	J Lab Clin Med	J Cell Biol x 2
	J Clin Investig	Hepatology	
1984	NEJM	Clin Exp Rheum	Arth & Rheum x 3
	Inflammation	Proc Soc Exp Biol & Med	Nucl Acid Res
1985	Arth & Rheum x 5	Brain Res Bull	Clin Exp Rheum x 4
	J Clin Investig	J Rheumatol	
1986	Clin Exp Rheum x 4	Arth & Rheum x 4	Science
	Proc Soc Exp Biol Med	J Rheumatol	
1987	J Rheumatol x 2	J Immunol x 2	Clin Exp Rheum x 3
	Proc Natl Acad Sci	J Lab Clin Med	Arth & Rheum
1988	J Clin Investig x 2	Proc Natl Acad Sci	Clin Exp Rheum x 3
	J Rheumatol x 2	Proc Soc Exp Biol Med	J Lipid Res
	Cleve Clin J Med	NEJM	J Immunol
1989	J Lab Clin Med x 3	J Biol Chem	J Immunol x 6
	J Rheumatol	Clin Exp Rheum x 6	J Leuk Biol
	Intl J Psych Med	Arth & Rheum	
1990	Clin Exp Rheum x 3	Proc Soc Exp Biol Med	J Lab Clin Med x 4
	Arth & Rheum x 2	J Rheumatol	Scand J Rheum
	Biochem Biophys Acta	J Clin Investig	
1991	J Lab Clin Med x 3	J Rheumatol x 2	Clin Exp Rheum x 2
	J Immunol x 2	Hepatology	Am J Physiol
	Biochemistry	Ann Int Med	J Clin Investig
	Proc Natl Acad Sci		
1992	Clin Exp Rheum x 2	Arth & Rheum	Cytokine
	Perspectives in Biol and Med	J Clin Investig	New York Academy of Sciences
	Scand J Rheumatol	J Immunol x 2	
1993	Ann Int Med	Intl. Immunopath & Pharm x2	Arthritis Rheum
	J Biol Chem	J Rheumatol	Clin Immunol & Immunopath
	J Clin Investig x2	Hepatology	J Inf Dis
	J Immunol x2	Clin Exp Rheumat	
1994	Amyloid	Clin Exp Rheumatol x 3	Glycosylation & disease
	Int'l J of Biochem	Immunology Today	J of Gerontology
	J Immunol	Immunopharmacology	NEJM
	J Rheumatol		
1995	Clin Exp Rheumatol x3	Human Molecular Genetics	J Rheumatol x 2
	Arthritis Rheum x 2	Ann Int Med	J Imm
	Blood		
1996	J Rheumatol	J Immunol x 2	Proc Soc Biol Med
	Archives Int Med	Clin Exp Rheumatol x 2	J Clin Invest
	Arthritis Rheum x 2	Lipid	J Clin Rheumat
1997	Clin Exp Rheumatol x 2	Immunology Today	Comp Biochem Physiol
	Cytokine	Arch Int Med	J Immunol x 2
	J Clin Investig		
1998	J Rheumatol x 2	Arth & Rheum x 2	Amyloid
	Scand J Rheumatol	J Lipid Res	BBA
	J Immunol	J Leuk Biol	J Exp Med
1999	Life Sciences	J Leuk Biol	J Immunol x 2

2000	J Rheumatol x 2 Clin Exp Rheum x 3 Molecular Med Today Cleveland Clinic J Med	J Rheumatol J Nutrition	Ann of the Rheum Dis JAMA
2001	J Immunol x 2 J Rheum x 2	Diabetology	J Clin Invest
2002	J Rheum Ann Int Med J Biol Chem	J Immunol x 2 Arthritis Research x 2	Clin Immunol Rev Arth & Rheum
2003	JAMA x 2 Brit J Cancer	J Immunol x 2 Arth & Rheum	Human Reproduction
2004	J Immunol x 2 Arch Int Med Annals Int Med	Arth & Rheum British J Cancer	NEJM Endocrinology
2005	J Immunol x 2 An Rheumat Dis	JCEM Eur J Imm	Kidney International Am J Med Sci
2006	Europ Cytokine Network		

B. Ad Hoc Reviewer for Foundations and other organizations

The Medical Research Council of Canada
The Wolfson Foundation
U.S.- Israel Binational Science Foundation
American Heart Association, Ohio Affiliate, & Kidney Foundation of Ohio
Research Grant Reviews - 1968-73
Scleroderma Foundation - Grant Review - 1990
New York Academy of Sciences - 1988, 1989, 1992, 1993, 1994, 1995
International Science Foundation - 1994
Department of Veteran's Affairs, medical research services - 1995, 1996
International Human Frontier Science Program - 1995, 1996, 1997
Arthritis and Rheumatism Council (UK) - 1997
Austrian Science Fund - 1997
Medical Research Council (UK) – 1998, 1999
National Science Foundation - 2000
21st Century Research and Technology Fund, State of Indiana - 2001
Research Grants Council of Hong Kong - 2002
Harvard Medical School, ad hoc evaluation committee - 2002
The Wellcome Trust - 2001, 2004

IX. Editorial Boards

1984-1997 Clinical and Experimental Rheumatology
1987-1992 Postgraduate Advances in Rheumatology
1991- International Journal of Immunopathology & Pharmacology
1993-2002 Amyloid. A journal of experimental and clinical investigation
(member of founding editorial board)
2002- European Journal of Inflammation

X. Conference Organizer and Co-Chairman

Conference on C-Reactive Protein and the Plasma Protein Response to Tissue Injury,
Sept. 21-23, 1981, The New York Academy of Sciences, New York

XI. Invited Lectures and Visiting Professorships

October 1976	Rush Medical College, Chicago, IL
October 20-21, 1977	University of Alabama in Birmingham, Birmingham, AL
October 28, 1977	Northeastern Ohio College of Medicine, Akron, OH
November 3, 1977	Brown University, Providence, RI
November 13, 1977	SUNY, Syracuse, NY
January 26, 1978	University of South. Florida, Tampa, FL
March 29, 1978	Hospital for Special Surgery, New York, NY
November 20, 1978	Damascus University Medical School, Damascus, Syria
April 2, 1979	Washington University, St. Louis, MO
April 3, 1979	St. Louis University, St. Louis, MO
January 9, 1980	Northeastern Ohio College of Medicine, Akron, OH
March 13, 1980	Albert Einstein College of Medicine, New York, NY
March 14, 1980	Seminar in Advanced Rheumatology, NYU Postgraduate Medical School, New York, NY
November 6, 1980	Central Region, American Rheumatism Ass'n., Chicago, IL
December 10, 1980	Wright State College of Medicine, Dayton, OH
March 13, 1981	Seminar in Advanced Rheumatology, NYU Postgraduate Medical School, New York, NY
June 25, 1981	Swiss Institute for Experimental Cancer Research, Lausanne, Switzerland
March 10, 1982	Seminar in Advanced Rheumatology, NYU Postgraduate Medical School, New York, NY
May 12, 1982	St. Thomas Hospital, Akron, OH
March 2, 1983	Hillcrest Hospital, Cleveland, OH
May 20, 1983	University of Tennessee, Memphis, TN
May 21, 1983	Tennessee Academy of Family Physicians, Memphis, TN
June 24, 1983	University of Paris, Faculty of Medicine, Paris, France
June 28, 1983	Symposium on Marker Proteins in Inflammation, Lyon, France
July 1, 1983	Inselspital Berne, Berne, Switzerland
July 4, 1983	Medical University of Cologne, Cologne, W. Germany
July 12, 1983	Universite Louis Pasteur, Strasbourg, France
November 11, 1983	Virginia Commonwealth University, Richmond, VA
December 3, 1983	Ohio State University, Columbus, OH
December 12, 1983	McMaster University, Hamilton, Ontario
March 21, 1984	Northeastern Ohio College of Medicine, Akron, OH
May 9, 1984	St. Elizabeth Hospital, Youngstown, OH
August 31, 1984	Jagiellonian University, Cracow, Poland
September 3, 1984	International Lectin Conference, Poznan, Poland
September 14, 1984	Conference on Pentraxins, Hamilton, MT
October 4, 1984	Northeastern Ohio College of Medicine: Conference on Nutrition Related Chronic Disorders, Akron, OH
December 12, 1984	Northeastern Ohio College of Medicine, Akron, OH
January 24, 1985	Medical College of Ohio, Toledo, OH
March 26, 1986	Northeastern Ohio College of Medicine, Akron, OH
May 2, 1986	Colloquium on Protides of the Biological Fluids, Brussels, Belgium
February 25, 1987	Rheumatism Society of the District of Columbia, Washington, D.C.
March 25, 1987	Northeastern Ohio College of Medicine, Akron, OH
June 24, 1987	Symposium on Markers of Inflammation, Lyon, France
October 5-6, 1987	Dalhousie University, Halifax, NS
November 4, 1987	Karol Marcinkowski University School of Medicine, Poznan, Poland
December 5, 1987	American Rheumatism Ass'n. SE region, Nashville, TN
January 11, 1988	University of New Mexico, Albuquerque, NM
May 25, 1988	American Rheumatism Ass'n., Inflammation Study Group, Houston, TX

June 28, 1988	International Union of Immunologic Societies: Regulation in Immunity, Polczyn Zdroj, Poland
October 29, 1988	Princesse Liliane Cardiology Foundation 13th Argenteuil Symposium: Acute Phase Proteins and the Acute Phase Response, Brussels, Belgium
December 12, 1988	NYAS Conference on Regulation of the Acute Phase and Immune Responses: Interleukin 6, New York, NY
March 29, 1989	Indiana University School of Medicine - Alpha Omega Alpha Dinner Speaker & Research Conference, Indianapolis, Indiana
April 1-2, 1989	North Carolina Rheumatology Society, Durham, NC
April 19, 1989	Northeastern Ohio College of Medicine, Akron, Ohio
May 5, 1989	Washington University School of Medicine, St. Louis, Missouri
June 10, 1989	Societe Nationale Francaise De Medecine Interne, Lille, France
July 12, 1989	Medical College of Wisconsin, Milwaukee, Wisconsin
July 15, 1989	Mexican Society of Rheumatology, Mexico City, Mexico
November 14, 1989	Queens University, Kingston, Ontario, Canada
March 28-29, 1990	University of Texas Southwest Medical Center, Dallas, Texas
Sept. 25-27, 1990	Symposium sur les Marqueurs de l'Inflammation, Lyon, France
October 31, 1990	Basic Science Symposium, American College of Rheumatology, Chairman, Seattle, Washington
January 23, 1991	University Hospital, Geneva, Switzerland
January 25, 1991	XIth European Workshop for Rheumatology Research, Leysin, Switzerland
January 29, 1991	Great Poland Cancer Center, Poznan, Poland
March 12, 1991	The Handerson Medical Historical Society, Cleveland, OH
April 10, 1991	Roswell Park Cancer Institute, Buffalo, NY
April 16, 1991	University of New Mexico, Albuquerque, NM
July 30, 1991	American Association of Clinical Chemists, Washington, D.C.
October 22, 1991	Ares-Sero Symposium, Montreux, Switzerland
October 29, 1991	Long Island Rheumatism Association, Islip, NY
October 30, 1991	SUNY, Stonybrook, NY
November 18, 1991	Rush Medical School, Chicago, IL
November 19, 1991	University of Health Sciences/The Chicago Medical School, Chicago, IL
February 25, 1992	Indiana University, Indianapolis, IN
March 12, 1992	American College of Rheum. Amyloidosis Symposium, New Orleans, LA.
April 9, 1992	Long Island Jewish Medical Center, New Hyde Park, NY
May 5, 1992	Armed Forces Radiobiology Research Institute (AFRRI), Bethesda, MD
August 19, 1992	Satellite Symposium of the 8th International Congress of Immunology, Krakow, Poland
October 29, 1992	Toledo Society of Rheumatologists, Toledo, Ohio
April 1, 1993	Henry Ford Hospital, Detroit, Michigan
April 28, 1993	Cleveland Society of Rheumatology Symposium, Dinner speaker, Cleveland, Ohio
July 5, 1993	XVIIIth ILAR Congress of Rheumatology, Barcelona, Spain
September 10, 1993	Workshop on Failure to thrive in old age, sponsored by National Institute on Aging, Tucson, AZ
February 7, 1994	Keystone symposium on the cellular and molecular regulation of the acute inflammatory response. Tamarron, CO.
June 23, 1994	NYAS Conference on IL-6-type cytokines. Poznan, Poland
October 24, 1994	American College of Rheumatology, Minneapolis, MN
November 2, 1994	Cleveland Clinic Foundation, Cleveland, OH
November 8, 1994	Bowman-Gray School of Medicine, Winston-Salem, NC
May 3, 1995	Cleveland Society of Rheumatology Symposium, Cleveland, OH
May 17-18, 1995	Université Rene Descartes (Paris V) - research seminar and grad. student lecture
May 25, 1995	Karol Marcinkowski Academy of Medicine, Poznan, Poland

February 2, 1996 discussant)	Gordon Research Conference on SAA, Ventura, CA (invited senior
May 20, 1996	Jagiellonean University, Krakow, Poland
June 11, 1996	Cleveland Clinic Foundation Research Institute
April , 1997	Cleveland Society for Rheumatology
May 8, 1997	Roosevelt/St. Luke Hospital, New York, NY
May 9, 1997	New York Medical College, Vallhalla, NY
June 26, 1998	Gordon Research Conference on SAA, Hennepin, NH (invited senior discussant)
September 18, 1998	IFCC/Beckman European Conference on Inflammatory Diseases, Regensburg, Germany
June 11, 1999	Institute of Molecular Biology, Jagiellonian University, Krakow, Poland
June 16, 1999	Department of Rheumatology, Vilnius University, Vilnius, Lithuania
November 5, 1999	American Society of Nephrology, Miami Beach, FL
February 2, 2000	Northeastern Ohio College of Medicine, Akron, OH
June 20, 2000	Hillcrest Hospital, Cleveland, OH
September 11-12, 2000	University of Texas Southwest Medical Center, Dallas, TX
October 11, 2000	Deaconess Hospital, Cleveland, OH
February 16, 2001	Parma Community General Hospital, Parma, OH
July 12, 2001	University Hospital, Geneva, Switzerland
September 5, 2001	Baystate Medical Center, Springfield, MA
February 21, 2002	Glenn Research Center, NASA, Cleveland, OH
March 3, 2002	Cleveland Clinic Foundation, Cleveland, OH
September 25, 2002	Cardiology Update, Lake County Hospital System, Eastlake, OH
January 27, 2003	Huron Road Hospital, East Cleveland, OH
February 19, 2003	Deaconess Hospital, Cleveland, OH
April 15, 2005	Cleveland Society of Rheumatology Symposium, Cleveland, OH
April 28, 2005	Fairview General Hospital, Cleveland, OH
April 29, 2005	Parma Community Hospital, Cleveland, OH
April 21, 2006	Cleveland Medical Library Association, annual meeting
April 27, 2006	Waring Medical Library Society, Charleston SC
April 28, 2006	Medical University of South Carolina, Charleston SC
May 8, 2006	Huron Road Hospital, Cleveland, OH

XII. Major Grant Funding

NIH Grants

A. NIH RO-1 Research Grants – as principal investigator

<u>Dates</u>	<u>Grant #</u>	<u>Project Title</u>	<u>Total Direct Costs</u>
1/1/65-12/31/67	HE-09353	Immunochemical Analysis of Human Myocardial Antigens	\$34,648
1/1/68-8/31/79	AI-08366 AI-12886	Biosynthesis and Structure of Acute Phase Proteins	\$206,245
8/1/80-2/28/91	AG-02467	Induction of Acute Phase Protein Biosynthesis	\$785,801
3/1/91-2/28/96	AG-02467	Induction of Acute Phase Protein Biosynthesis	\$912,256
3/1/96-7/31/00	AG-02467	Induction of Acute Phase Protein Biosynthesis	\$642,626

B. NIH RO-1 Research Grants - as co-investigator

7/1/91-6/30/95	RO-1-AR40765 (D. Samols, PI)	Studies of the in vivo role of CRP in transgenic mice	\$550,000
8/15/00-5/31/05	AG-02467 (D. Samols, PI)	Induction of Acute Phase Protein Biosynthesis	\$1,000,000
9/30/99-4/15/05	NIAMS (J. Olsen, PI)	Mapping Genes for Fibromyalgia Syndrome	\$2,000,000

C. NIH Research Grants - as associate director

NIH Multipurpose Arthritis Center

<u>Dates</u>	<u>Grant #</u>	<u>Project Title</u>
12/1/78-11/30/02	AR 20618	Northeast Ohio Multipurpose Arthritis Center, (R. Moskowitz, Director)

D. NIH Research Grants - as sponsor for NIH clinical investigator award

to Stanley P. Ballou, M.D.:

<u>Dates</u>	<u>Grant #</u>	<u>Project Title</u>
9/30/91-9/29/96	KO-1-AI-10162	Interaction of C-reactive protein with human monocytes

E. Research Grants - as US counterpart for Fogarty International Research Collaboration Awards

To Andrzej Mackiewicz, M.D., Ph.D., Academy of Medicine, Poznan, Poland:

<u>Dates</u>	<u>Grant name/#</u>	<u>Project Title</u>
7/1/93-6/30/96	Maria Sklodowska-Curie Joint Fund II MZ/HHS-92-104	Cytokine Regulation of Acute Phase Protein Glycosylation

The Kroc Foundation

10/1/80-12/31/83		Regulation of Biosynthesis of Murine Amyloid Associated Proteins	\$54,285
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BIBLIOGRAPHY

I. ORIGINAL REFEREED ARTICLES

1. Kushner I: Effects of ACTH on plasma iron levels in normal human subjects. *Proc Soc Exp Biol and Med* 101: 246-247, 1959
2. Kaplan MH, Meyeserian M, Kushner I: Immunologic studies of heart tissue. IV. Serologic reactions with human heart tissue as revealed by immunofluorescent methods: isoimmune, Wassermann, and autoimmune reactions. *J Exp Med* 113: 17-36, 1961p
3. Kushner I and Kaplan MH. Studies of acute phase protein. I. An immunohistochemical method for the localization of Cx-reactive protein in rabbits. Association with necrosis in local inflammatory lesions. *J Exp Med* 114: 961-974, 1961
4. Goldstone J, Kushner I, Harris JW: Studies on the regulation of plasma iron in dogs with turpentine abscesses. *Proc Soc Exp Biol Med* 110: 285-287, 1962
5. Kushner I, Rakita L, Kaplan MH. Studies of acute phase protein. II. Localization of Cx-reactive protein to sites of myocardial necrosis. *J Clin Invest* 42: 286-292, 1963
6. Kushner I and Kaplan MH: Studies of acute phase protein. III. Elicitation of Cx-reactive protein in relation to immune elimination of antigen and appearance of circulating antigen-antibody complexes. *J Immunol* 92: 55-60, 1964
7. Kushner I, Rapp W, Burtin P: Electrophoretic and immunochemical demonstration of the existence of four human pepsinogens. *J Clin Invest* 43: 1983-1993, 1964
8. Kushner I and Kaplan MH. Antigenic analysis of extracts of human heart tissue. Cardiac antigens with limited distribution in other organs. *J Immunol* 99: 526-533, 1967
9. Keiser HD, Ruben F, Wolinsky E, Kushner I: Clinical forms of gonococcal arthritis. *NEJM* 279: 234-240, 1968
10. Espinosa E, Kushner I, Kaplan MH. Antigenic composition of heart tissue. *Amer J Cardiology* 24: 508-513, 1969
11. Kushner I and Somerville J: Estimation of molecular size of CRP and CxRP in serum. *Biochem Biophys Acta* 207: 105-114, 1970
12. Keiser H, Kushner I, Kaplan MH: "Non-specific" stimulation of lymphocyte transformation by cellular fractions and acid extracts of group A streptococci. *J Immunol* 106: 1593-1601, 1971
13. Kushner I and Somerville J: Permeability of human synovial membrane to plasma proteins: Relationship to molecular size and inflammation. *Arthritis Rheum* 14: 561-570, 1971
14. Kushner I, Edgington TS, Trimble C, Liem HH, Muller-Eberhard U. Plasma hemopexin homeostasis during the acute phase response. *J Lab Clin Med* 80: 18-25, 1972
15. Kushner I and Somerville-Volanakis J, Studies of synovial and serum C-reactive protein in experimental arthritis in rabbits. *Proc Soc Exper Bio Med* 142: 112-114, 1973
16. Yen-Watson B and Kushner I: Rabbit CRP response to endotoxin administration: Dose-response relationship and kinetics. *Proc Soc Exp Bio and Med* 146: 1132-1136, 1974
17. Greco FA and Kushner I: Loss of symptoms of pulmonary hypertrophic osteoarthropathy after laparotomy. *Ann Int Med* 81: 555-56, 1974
18. Kushner I and Somerville-Volanakis J: Molecular size of rabbit C-reactive protein synthesized *in vitro*. *J Lab Clin Med* 87: 617-623, 1976
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III. ORIGINAL ABSTRACTS AND LETTERS

A. ABSTRACTS

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IV. BOOKS AND BOOK CHAPTERS

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