

ANTONIO SCARPA Curriculum Vitae

Center for Scientific Review National Institutes of Health 6701 Rockledge Drive Room 3016, MSC 7776 Bethesda, MD 20892-7776 Voice: 301 435-1114 Fax: 301 480-3965

E-mail: scarpat@csr.nih.gov

Date of Birth: July 3, 1942

Place of Birth: Padua, ITALY

Citizenship: U.S.A.

Education:

1955–1960: Humanities, Venice and Padua

1960–1966: M.D., magna cum laude, University of Padua, School of Medicine

1968 M.D. licensure, European Community

1966–1970: Ph.D. (Libera Docenza), General Pathology, University of Padua,

School of Medicine

1973–1976 Several M.B.A. courses at Wharton Business School, University of

Pennsylvania

1973–1976 M.A. (Honoris Causa), University of Pennsylvania

Postgraduate Training and Fellowship Appointments:

1967	Research Assistant, Center for Physiology of Mitochondria, University of Padua (Dr. A. Azzi), Padua, ITALY
1968	Visiting Scientist, University of Bristol, Department of Biochemistry (Professor B. Chappell), Bristol, ENGLAND (6 months)
1969	Visiting Scientist, Weizmann Inst. of Science (Professor A. Katchalsky), Rehovot, ISRAEL (2 months)
	Dutch Council for Pure Research Fellow, University of Utrecht, Department of Biochemistry (Profefssor L. van Deenen), Utrecht, THE NETHERLANDS (1 year).
1971	NATO Postdoctoral Fellow, University of Pennsylvania, Johnson Research Foundation (Professor B. Chance, 1 year)

Faculty Appointments:

1969–1970	Assistant Professor, Department of General Pathology, University of Padua, Padua, ITALY
1970–1971	Associate Professor, Department of General Pathology, University of Padua (on leave of absence)
1972–1973	Visiting Assistant Professor, Johnson Research Foundation, University of Pennsylvania
1973–1976	Assistant Professor, Johnson Research Foundation and Department Biophysics, University of Pennsylvania
1976–1980	Associate Professor, Department of Biochemistry & Biophysics, University of Pennsylvania
1980–1986	Professor, Dept. Biochemistry & Biophysics, University of Pennsylvania
1982–1986	Director, Biomedical Instrumentation Group, University of Pennsylvania

1986–1990	Adjunct Professor, Biochemistry & Biophysics, University of Pennsylvania
1986–2005	Adjunct Professor, Pathology, Jefferson University, School of Medicine, Philadelphia
1986–2005	Professor and Chairman, Department of Physiology and Biophysics, Case Western Reserve University
1988–2005	Adjunct Staff, Cleveland Clinic Foundation
1989–2005	Professor, Department of Medicine, Case Western Reserve University.
1998–2005	The David and Inez Myers/Antonio Scarpa Professor of Physiology

U.S. Government Appointments:

2005-present Director, National Institutes of Health, Center for Scientific Review

Memberships in Professional and Scientific Societies:

1968–1978	Biochemical Society (London)
1970-present	Biophysical Society
1972–1999	American Society of Biological Chemists
1974–1995	Society of General Physiologists
1974–present	American Society of Physiologists
1986–2005	Ohio Physiological Society
1986–2005	Association of Chairs of Departments of Physiology

Awards and Honors:

1968	National Research Council (CNR) of Italy Fellowship
1970	Dutch Pure Research (ZWO) Postdoctoral Fellowship

1971	NATO Postdoctoral Fellowship
1973–1978	Established Investigator, American Heart Association
1978	Brazilian Visiting Professorship, Federal University Rio de Janeiro, BRAZIL
1988–1991	Italian Ministry Public Education, Visiting Professorship, University of Siena, ITALY
1989, 1996	Ohio Physiological Society, President
1993–1995	President, Association of Chairs of Departments of Physiology
1997-2005	Cochairman, National Caucus Basic Science Chairs
1998–2005	Administrative Board, Council of Academic Societies, Association of American Medical Colleges
1998–2005	The David and Inez Myers/Antonio Scarpa Professorship
1999–2003	Treasurer and Executive Council, The Biophysical Society
2002–2005	Board of Directors, FASEB (Federation American Societies Experimental Biology)
2003-2005	Executive Board, AAMC (Association of American Medical Colleges)

Consultant and Officer of Scientific Organizations:

National Institutes of Health, Bethesda, MD

1983–1988	Member of Study Section "Physical Biochemistry"
1990–1994	Member, Heart Lung and Blood Research Review Committee A
1999–2004	Member of Study Section "Physiological Chemistry"

American Heart Association, National Center, Dallas, TX

1987–1991 Member of National Research Committee

1987–1988	Chairman Study Section "Physiological Chemistry B"
1989–1991	Chairman Study Section "Cell Transport and Metabolism"
1989–1990	Co-Chairman Study Section for Established Investigators and Clinical Scientist Awards
National Aeronautic Space	e Administration, Washington, DC
1989–1992	Musculoskeletal Task Force
Biophysical Society, Bethe	esda, MD
1974–1975	Program Chairman, U.S. Bioenergetics Group
1975–1976	U.S. Representative, International Bioenergetics Group, IUB and IUPAB
1977–1980	Council, US. Bioenergetics Group
1980–1983	Biophysical Society Council and Executive Committee (1982–1983)
1984–1985	Program Chairman, U.S. Bioenergetics Group
1988–1991	Biophysical Society Council
1990	Symposium Organizer
1990–1993	Publication Committee
1994–1997	Biophysical Society Council
1998–2003	Treasurer and Executive Council Member
F.A.S.E.B., Bethesda, MD	
1986–1990	Publication Committee
1998–2002	Finance Committee
2002–2005	Publication and Communication Committee
2002–2005	Board of Directors

United Nations, Geneva, Switzerland

1987–1990 U.N. Educational, Scientific and Cultural Organization. Member of

ICRO Panel on Structure, Function and Regulation

Ohio Physiological Society, Dayton, OH

1987–1988 President

1996–1997 President

The American Physiological Society, Bethesda, MD

1990–1993 Council, APS-Cell Section

1997 Blue Ribbon Committee

Association of Chairs of Department of Physiology, Bethesda, MD

1991–2005 Member, Executive Committee

1993–1995 President

1996–pres. Council Academic Societies representative to A.A.M.C.

State of Ohio Edison Biotechnology Board

1990–1994 Member

National Caucus Presidents Basic Biomedical Science Chair, Washington, DC

1993–1997 Representative of Assoc. Chairs of Physiology

1997–2005 Co-Chair

Association American Medical Colleges, Washington, DC

1996–2004 Council Academic Societies Representative

1997, 2001 Program Committee Member

1997 Selection Committee Glaser Distinguished Teacher Award

1998–2000 Chair, CAS Chair Development Task Force

1997 Selection Committee, Award for distinguished Research

1998–2001	Administrative Board, Council of Academic Societies
2002–2004	Administrative Board, Council of Academic Societies
2002	Co-organizer of National Basic Science Chair Conference, Philadelphia

National Science Resource Center/NSF/Inst. Medicine, Washington, DC

1977 Science Leadership Institute Team Leader

\mathbf{E}

Journal	Editor
----------------	---------------

Editorial Positions:	
Journal Editor	
1975–1979	Associate Editor, Biophysical Journal
1986-present	Co-Editor, Archives of Biochemistry and Biophysics
1987–2005	Co-Editor, Cell Calcium
1992–1999	Associate Editor, Biochemistry and Molecular Biology International
1997–2002	Associate Editor, News in Physiological Sciences
2000–2005	Executive Editor, The Scientific World
Journal Advisory Board	
1975–1986	Editorial Advisory Board, Archives Biochemistry and Biophysics
1975–1982	Editorial Advisory Board, Journal of Bioenergetics
1976–1983	Editorial Advisory Board, Membrane Biochemistry
1978–1981	Editorial Advisory Board, Circulation Research
1979–1982	Editorial Advisory Board, Biophysical Journal
1979–1987	Editorial Advisory Board, Cell Calcium
1983–1990	Editorial Advisory Board, Physiological Reviews
1979–1993	Editorial Advisory Board, J. Muscle Res. and Cell Motility

1982–1998	Editorial Advisory Board, Magnesium: Experimental and Clinical Research
1987–1993	Editorial Advisory Board, FASEB Journal
1988–2005	Editorial Advisory Board, Molecular and Cellular Biochemistry
Books and Special Is	ssue Editor
1975	Editor, "Membrane Bioenergetics," Special Issue of Biophysical Journal, Vol. 15
1977	Co-editor, "Ca ⁺⁺ Transport and Cell Function," Annals of the New York Academy of Sciences, Vol. 307
1978	Editor, "International Symposium Frontiers of Biological Energetics," Academic Press, 2 volumes
1982	Co-editor, "Transport ATPases," New York Academy of Sciences, Vol. 402
1982-2005	Editorial Advisory Board, Methods in Enzymology, 12 volumes "Biomembranes" and "Biological Transport"
1985	Editor, "Measurements of Intracellular Ca ⁺⁺ ," Special Issue of Cell Calcium, Vol. 6
1986	Co-editor, "Membrane Pathology," New York Academy of Sciences, Vol. 488
1988	Co-editor, "Membrane and Cancer Cells," New York Academy of Sciences, Vol. 551
1992	Co-editor, "Ion Motive ATPases, Structure, Function and Regulation," New York Academy Sciences, Vol. 671
Organization of Co	ngresses, Meetings, etc.:
1975	Biophysical Society Meeting, Local Arrangements Committee
1975	Program Chairman, Biophysical Society Meeting, Bioenergetics

subgroup "Membrane Transport"

1976	Program Co-Chairman, Biophysical Society Meeting
1977	Co-organizer of symposium "Ca ⁺⁺ Transport and Cell Function", New York Academy of Sciences, Vol. 307
1978	Co-organizer of International Symposium, "Frontiers of Biological Energetics", Philadelphia, Academic Press, 2 volumes.
1979	Program Co-chairman, "Symposium on Role of Ca ⁺⁺ in Neural Function", International Neuroscience Meeting, Jerusalem
1979	FASEB Long-term Planning Meeting
1981	Program Chairman, Symposium on "Use of H+ Gradients for Cell Functions", International Biophysics Congress, Mexico City
1982	Co-organizer, International Meeting on "Transport ATPases" New York Academy of Sciences, Vol. 402
1983	Co-chairman, Symposium on "The Uptake of Small Molecules into Aminergic and Cholinergic Vesicles," Vancouver, Canada
1985	Program Chairman, Biophysical Society Meeting, Bioenergetics subgroup, "Bioenergetics in Pathology and Medicine," Baltimore, MD
1986	Co-organizer, Conference on "Membrane Pathology," New York Academy of Sciences, Vol. 488, Como, Italy
1988	Co-organizer, Conference on "Membranes and Cancer Cells", New York Academy Sciences, Vol. 551, Torgiano, Italy
1988	Program Co-Chairman, Gordon Conference on "Protons and Membrane Reaction", Santa Barbara, CA
1988	Program Chairman "High Tech Physiology", Cleveland, OH
1990	Program Chairman, Biophysical Society Symposium "Biophysical Aspects of Intracellular Signaling", Baltimore, MD

1992	Co-Organizer, Conference on "Ion-motive ATPases: Structure, Function and Regulation", New York Academy Sciences, Vol. 671, Cleveland, OH
1993	Program Chairman, Symposium on "Regulation of Cell Magnesium", International Congress of Physiology, Glasgow, Scotland
1993	Program Cochairman, Workshop on "Novel Techniques in Cell Imaging" International Congress of Physiology, Glasgow, Scotland
1994	Program Chairman, Annual Meeting, Association Chairman of Departments of Physiology, Los Cabos, Mexico
1994	Program Chair, FASEB Conference on "Ion motive ATPases", Copper Mountain, CO
2002	Co-Organizer, A.A.M.C. National Conference Basic Science Chairs "The Evolving Role of Basic Science Chairs in Medical Schools", Philadelphia, PA

Major Institutional Responsibilities:

University of Pennsylvania

- <u>Advisory Boards</u>—Pennsylvania Muscle Institute (1979–1986); Cancer Center (1983–1986); Clinical Research Center of University Pennsylvania Hospital (1980–1986).
- Research and Training—Principal Investigator and Director, Program Project, "Cardiac Bioenergetics," HL-18708 (1983–1987), 6 projects, approximately 2 m/year; Principal Investigator and Director, Pre-doctoral Training Grant, "Cardiovascular Research" HL-07502 (1980–1987) tuition and stipend for 18 graduate students/year.
- <u>Major Facilities: Director</u>—Biomedical Instrumentation Group (1979–1987), a facility to design and fabricate new biomedical instrumentation which employed 8 full time engineers-scientists and had a yearly operating budget of over one million.

Case Western Reserve University

Department Chair

Rebuilding the Department of Physiology and Biophysics at Case Western Reserve from ground up. Design of new space and facilities, obtaining major funding from Cleveland Foundation, Philanthropic Families and State of Ohio, recruitment in 12 years of over 35

new faculty. During the last fifteen years the extramural direct cost funding of the department rose from \$300,000 to the present \$12 M; the number of faculty from 4 to 31, the number of graduate students from 1 to 63. The department's faculty has now two major program projects and three training grants from the N.I.H and the Department ranked during the last five years within the top 5% of the departments of Physiology in the country.

Advisory Boards

Ohio Edison Biotechnology Center (1987–1991); Cancer Center (1987–2005); Medical Students Training Program (1987–1994); Center for Skin Research (1987–1993); Cleveland Biotechnology Center (1989–1995); Scientific Advisory Board and Chair, Cleveland Center for Structural Biology (1992–2005).

Search Committees

Search Committees for Chairs of Departments of Bioengineering, Medicine, Radiology, Surgery, Pathology, Dermatology, Microbiology, Environmental Heath Sciences. Chair, Search Committee for the Chair of Department of Pharmacology (1994). Search for several Division chiefs, Center Directors and Clinical Research Directors and associate Deans for Finances and Medical Education.

Chair, Search Committee for the Chair of Department of Pharmacology (2003)

Planning

- <u>Chairman Research Committee</u>, School of Medicine (1987–1992). Planning and recommendations for the direction of institutional research (Chairs recruitment, development of research centers, research facilities, etc.).
- <u>Chair of Construction and Planning Committee</u> (1987–1991). Planning, site visits to a dozen research buildings nationwide, interviews and selection of architect and construction manager, design concept, detailed design requirements, selections of material and equipment for a 12 stories research building, the larger in the Institution.
- <u>Chair, Long Term Strategic Planning</u>, School of Medicine and University Hospitals of Cleveland. (1990–1994). Planning and recommendation for area of development, affiliation, finance, faculty compensation, etc.
- <u>Chair, Institutional Task Force for the use of Isotopes</u> (1988–1989). Redesign from bottom up the campus-wide program for the use of isotopes, a program that was temporarily suspended for lack of minimum compliance.
- <u>Chair, Structural Biology Cleveland Advisory Board</u> (1990–2005). This committee built faculty, facilities and support for the new Center for Structural Biology, the major inter-institution program presently existing in Cleveland. These efforts

resulted in the recruiting of 10 new faculty, the renovation of a research building, the purchase of ten high field NMR magnets and the awarding of over 10 million from local agencies.

Institutional Teaching Organization

- <u>Committee of Medical Education</u>, School Medicine (1987–1990) (1992–1995). This committee is mandated by the faculty senate to design, implement and provide quality control for the entire medical school curriculum and daily teaching.
- <u>Director, Homeostasis 1</u>. (1996–2005) This is approximately one third of the first year medical school teaching for 140 students and is comprised of several hundreds hours of lectures, laboratories and teaching in small groups in an integrated, interdepartmental and organ based model.
- Minority Programs. (1993–2001) Organizer and major sponsor of:
 - a) science partnership for science advancement with Superior Elementary School, East Cleveland, for 40 students 20 full days/year. This include teaching, laboratory, side trips to Washington, Philadelphia, application for grants and resources, development of a national demonstration center (NSF-AAMC);
 - b) biomedical science enhancement program for 40 nationally recruited HCEM premedical minority students
 - c) high school and undergraduate summer training for 8 minority students/year
 - d) co-developer of Leap Program for 300 4th and 5th grade African American elementary students who are now followed weekly one-on-one by 50 graduate students.

Institutional Fund Raising for Research

- Cleveland Foundation, Myers Foundation and State of Ohio Initiation Grants (1986–1990). Awarded approximately 4 million toward the rebuilding of the Department of Physiology and Biophysics.
- <u>Cleveland Foundation and State of Ohio</u> (1990–1995). Raised approximately \$10 million to build Structural Biology of Cleveland.
- Principal Investigator, <u>Program Project</u> "Regulation of ATPases and Ion Gradients in Myocardium" (1990–present), NIH, NHLBI.
- Principal Investigator and Director <u>Training Grant</u> "Cleveland Training Grant in Cardiovascular Research" (1988–present), tuition and stipends for 14 pre and post doctoral students.
- Co-Principal Investigator <u>Howard Hughes Medical Institutes</u> (1994–1998). \$3 million for faculty recruitment in genetics, molecular biology and physiology.

Miscellaneous

President, Council of Basic Science Chairs, School Medicine. (1995–1999)

Extramural Consultant

- McNeil Laboratories, Fort Washington, PA (1978–1980)
- SKF-Beckman, Philadelphia, PA (1982)
- Consultant, Hormel Institute, Austin, MN (1983–1985)
- Consultant Graduate Programs, SUNY Downstate Medical College, Brooklyn, NY (1989)
- Texas Higher Education Board, Chairman Study Section for State Grant Allocation (1989)
- Peer Review Board, Vanderbilt University Laser Center, Nashville, TN (1992-present)
- Board of Scientific Counselors, National Institute Alcohol Abuse and Alcoholism, Bethesda, MD (1991–1995)
- Consultant, Dean of the School of Medicine, University of Maryland, Baltimore, MD (1992)
- Reviewer Research Department, Henry Ford Medical Group, Detroit, MI (1992)
- Advisory Committee, School Medicine, University Virginia, Charlottesville, VA (1993)
- Consultant, Dean of the School Medicine, University of Texas at Houston, TX (1994 and 1996)
- Consultant, Dean of the School of Medicine, University Colorado, Denver, CO (1998–1999)
- Consultant, Dean of the School of Medicine, University of Virginia, Charlottesville, VA (1999–2000)
- Consultant, Dean of the School of Medicine, Ohio State University, Columbus, OH (2000)
- Consultant, Dean of the School of Medicine, University of Michigan, East Lansing, MI (2001)
- Consultant, Dean School of Medicine, University of Illinois (2004)
- Consultant, Vice President and Dean, Penn State School Medicine at Hershey (2005)

Teaching and Related Activities:

• Member, Graduate Groups of Biophysics (1972–1987), Biochemistry (1975–1987), and Physiology (1976–1987), University of Pennsylvania. Member, admissions, curriculum, and finance committees for the above groups.

- Member and organizer of several predoctoral and postdoctoral training groups. Member
 of selection committee for several graduate student training grants, University of
 Pennsylvania.
- Director, NIH training program on Cardiovascular Research of the University of Pennsylvania (training support for 12 predoctoral trainees).
- Chairman, Admission and Recruitment committee for Graduate Group of Biophysics and Biochemistry, University of Pennsylvania (1981–1982).
- Director, NIH training program "Cleveland Training Program in Cardiovascular Research" (training support for 14 pre and postdoctoral trainees (1988–present).

Courses taught as primary or secondary teacher in past years:

- **General Pathology**, University of Padua Medical School
- **Bioenergetics**, University of Pennsylvania
- **Biomembranes**, University of Pennsylvania
- Biochemical Basis of Metabolic Diseases, University of Pennsylvania
- Biophysical Approaches to Cellular Pathology, University of Pennsylvania
- Medical Instrumentation, University of Pennsylvania
- **Biochemistry 524**, University of Pennsylvania "Cell Biochemistry, the Molecular Basis of Cell Function," Organizer, course director and major lecturer
- **Biochemistry 100**, Organizer of "Cell Biology" section and lecturer
- **Biochemistry 561**, "Biochemical Basis of Metabolic Diseases"

Courses presently taught at Case Western Reserve University:

- Ethical Aspect of Research—12 hours lectures and demonstrations/year for 20 graduate and postdoctoral students
- **Physiology 434**—course director and 12 hours of lectures
- **Physiology 505**—course director, 21 hours lectures
- **Medical School**—8 hours of lectures
- **Horizons in Biomedical Science**—course director and 20 hours lectures for 40 premedical minority undergraduates (1994–1997)

- Academy for Science Teaching to Elementary students—approximately 200 hours/year teaching to 40 minority elementary students in classroom, laboratory, field trips.(1994–1998)
- **Homeostasis 1**—(approximately 1/3 of first year curriculum for first year medical students), Committee director and organizer.

Teacher in International Advanced Courses:

- IUPAB-PABS—"Mitochondria: Structure, Function, and Biogenesis", Mexico City
- UNESCO—"Recent Developments in Ca⁺⁺ Transport", Caracas
- EMBO—Measurement of Calcium", Oxford
- "Mitochondrial Transport", IVIC, Caracas
- FEBS—"Membranes and Transport", Zurich
- FEBS—"Ion Transport", Bari
- University Siena—"Cell Calcium", 20 hours-lectures
- Catholic University Rome—"Intracellular Signal", 20 hours-lectures
- University of Siena—"Cell Physiology", 40 hours-lectures
- EMBO Course—Cytoplasmic Ca²⁺ Concepts and Techniques", Uppsala, Sweden
- University of Siena—"Cell Physiology", 20 hours-lectures
- Catholic University Rome—"Intracellular Signals", 20 hours-lectures
- University of Padua—"Biochemistry for Medical Students", 26 hours-lectures
- EMBO Course—"Cytoplasmic Ca²⁺ Concepts and Techniques", Uppsala, Sweden
- University of Siena—"General Pathology" for medical students, 9 hours, Siena, Italy

Pre- and Post-Doctoral Trainees:

Pre:

NAME	YEARS	DEGREE	PRESENT POSITION
Autilio Cecchetto	1967-1971	M.D., Ph.D., University of Padua	Professor of Pathology, University of Padua
Leo Herbette	1975-1980	Ph.D., Biophysics, University of Pennsylvania	Professor (Biophysics), University of Connecticut
Robert Johnson	1975–1981	M.D., Ph.D., Biophysics, University of Pennsylvania School of Medicine, MSTP	Director of Pharmacology, Merck, Sharpe Dhome
Jean Wallace	1979–1983	Ph.D., Physiology, University of Pennsylvania	Science writer and editor
Erik Wiener	1982-1988	Ph.D., Biophysics, University of Pennsylvania	Associate Professor, Univ. Pittsburg
Michael Beers	1980–1986	M.D., Ph.D., University of Pennsylvania	Associate Professor Environmental Health, University of Pennsylvania, Philadelphia, PA
Mary Beth DeYoung	1984–1989	Ph.D., Biochemistry and Biophysics, University of Pennsylvania	Postdoc Fellow, University of California, San Francisco
Bartolo Giannattasio	1987–1993	Ph.D., Physiology & Biophysics, Case Western Reserve University	Assistant Professor of Medicine, Cardiology, Case Western Reserve University
Jing-Sheng Zheng	1988–1992	Ph.D., Physiology & Biophysics, Case Western Reserve University	Research Scientist, NIH
Carmela Marfella	1991–1998	M.S., Physiology, Case Western Reserve University	Research Associate
Donald Keenan	1992–1996	Ph.D., Physiology & Biophysics, Case Western Reserve University	Assistant Professor, Department of Surgery, University of Pittsburg.
Christie Luca	1994–1999	Ph.D., Physiology & Biophysics, Case Western Reserve University	Instructor, Case Western Reserve University
Theresa Fagan	1999–pres		

Post:

NAME	YEARS	LENGTH OF TIME & ORIGINAL INSTITUTION	PRESENT POSITION
A. Cittadini	1971-1972	2 years, University of Rome	Professor & Chair General Pathology, University of Rome, Italy
G. Case	1972	1 year, University of Washington	Sr. Scientist, EPA, Morgantown, WV
A. Vinogradov	1972	1 year, University of Moscow	Professor & Chair Biochemistry, Moscow State University, Russia
J. Vallieres	1974	1 year, McGill University	Professor, McGill University, Montreal, Canada
H. Rottenberg	1973–1974	2 years, Weizmann Institute Science, Rehovot	Professor Pathology, Allegany School Med. Philadelphia PA
B. Sloane	1975–1978	2-1/2 years, University of Michigan	Professor & Chair Pharmacology, Wayne State University, Detroit, MI
J. Harmon	1979–1980	1 year, University of Indiana	Professor Biochemistry, University of Oklahoma, Stillwater, OK

E. Gylfe	1979	6 months., Uppsala University	Professor Cell Biology, Uppsala University, Sweden
G. Salama	1977-1980	2-1/2 years., University of Pennsylvania	Professor Physiology, University of Pittsburgh., Pittsburgh, PA
G. Dubyak	1979–1981	3 years, University of Pennsylvania	Professor, Case Western Reserve University, Cleveland, OH
M. Prentki	1981	6 months, University of Geneva	Professor Nutrition, University of Montreal, Canada
R.G. Johnson	1981	6 years, University of Pennsylvania	Director Pharmacology, Merck S.D., Fort Washington, PA
L. Toro	1982	6 months, University of Mexico	Professor, U.C.L.A., Los Angeles, CA
E. Pintado	1980-1982	2 years, University of Sevilla	Professor, University of Seville, Spain
J. Scheffler	1982	6 months, University of Pennsylvania	Director Macromol. Structure, Bristol, Mayer, Squibb, Princeton, NJ
F. Wolf	1982-1984	1-1/2 years., University of Rome	Professor, Catholic University, Rome, Italy
P. Ronner	1979-1984	5 years, ETH, Zurich	Associate Professor, Biochemistry, T. Jefferson University, Philadelphia, PA
D. Van Wagoner	1984–1987	3 years, Jefferson University	Assistant Staff, Cleveland. Clinic Foundation, Cleveland, OH
E. Nemeth	1984–1986	3 years, Yale University	Director of Research, National Products Company, Salt Lake City, UT
E. Wiener	1988–1990	1 year, Case Western Reserve University	Associate Professor, University of Pittsburg
P. Mene	1988–1992	3 years, University of Rome	Professor Medicine, University of Rome
M.B. DeYoung	1989-1990	1 year, Case Western Reserve University	Research Associate, U.C.S.F., San Francisco, CA
C. Obejero-Paz	1988-1993	8 years, University Buenos Aires	Instructor, CWRU, Cleveland, OH
M. Lakshmanan	1988–1991	3 years, NIH	Research Leader, Upjohn and Company
A. Romani	1989–1994	7 years, University of Siena	Assistant Professor, CWRU, Cleveland, OH
A. Christie	1989–1992	7 years, University of Rochester	Scientific Product Evaluation, SmithKline Beach. Philadelphia, PA
G. Deliconstantinos	1989–1992	2 years, University of Athens	Associate Professor, University of Athens
K. Powers	1990–1995	1 year, Case Western Reserve University	Private Practice
J. Aucott	1990–1991	1 year, Case Western Reserve University	Associate Professor, CWRU
K. Parker	1995–1998	4 years, Stanford University	Instructor, CWRU

Recent Research Grant Support:

NIH, T32-HL-07653, 06-10, "Cleveland Training Program in Cardiovascular Research", 10%, 1998–2003, Direct Cost Current Year \$582,025, Total Direct Cost \$2,601,412.

NIH, HL-18708, PO-26-30, "Cardiac Bioenergetics", 40%, 2002-2007, Direct Cost Current Year \$1,029,005, Total Direct Cost \$5,478,005 (This grant is has just been renewed and has been the major support for the laboratory for 26 years).

NIH HL-67425, RO1 1-5, "Regulation of Cellular Magnesium", 2001-2006, Direct Cost Current Year \$250.000.