Vermont Academy of Science and Engineering Directory

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VERMONT ACADEMY OF SCIENCE AND ENGINEERING

The Vermont Academy of Science and Engineering (VASE) was founded in 1995 by the Vermont Technology Council, following a recommendation of the Vermont Science and Technology Plan of December, 1994.

It was established with three purposes

1. To recognize outstanding achievement and contributions in the broadly defined areas of science and/or engineering

2. To foster a deeper understanding and promote discourse on scientific and technical matters among the citizens of the State of Vermont

3. To provide expert and impartial technical advice to the people and the government of the State of Vermont

This "**Directory of Members**", first produced in 2006, was revised in subsequent years to add new members, but some information may not be up-to-date.

It comprises brief vitae of the members of VASE, outlining their expertise and interests, and providing contact information.

Board of Directors of VASE [2009]

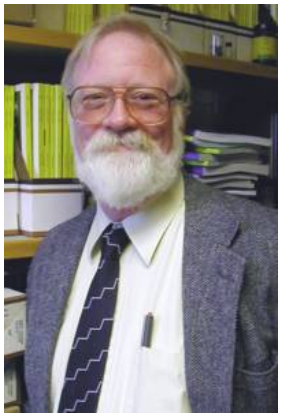
Christopher Allen	President
Jeff Finkelstein	Past-President
Susan Wallace	Treasurer, Founding Member
Dale Critchlow	Founding Member
Alan Betts	(Past President)
Dave Japikse	(Past President)

General enquiries about VASE should be directed to the President
Dr. Christopher Allen: christopher.allen@uvm.edu
http://www.uvm.edu/EPSCoR/pdfFiles/Vermont_Academy_of_Science_and_Engineering_Directory.pdf

Table of Contents: Members (Year of election to VASE)

Information unavailable at present for Warren Bickel, 'Jito' Coleman, Stephen Knight, Paul Low, Susan Lowey, Mark Smith and Michael Sporn.

DR. CHRISTOPHER ALLEN (2005)



Name: Christopher W. Allen

Address: 11 Hanley Lane
Essex Jct., VT 05452

Telephone: 802-879-6743(h), 802-656-0193(w)

Email: christopher.allen@uvm.edu

Education: B.A. 1964, University of Connecticut (High Honors)
M.S. 1966, University of Illinois
Ph.D. 1967, University of Illinois(Moeller)

Professional Experience:

Assistant Professor, University of Vermont 1967-1972
Associate Professor, University of Vermont 1972-1976
Senior Visitor, 1973-74, University of Oxford (H.A.O. Hill)
Professor, University of Vermont 1976-present
Senior Visitor, 1983, University of Edinburgh (E.A.V. Ebsworth)
Member, Vermont Regional Cancer Center 1979-1993
Acting Chairman, Department of Chemistry 1984-1985
Member, Material Sciences Program 1980-2005
Director, EPSCoR Advanced Materials Research Cluster 1992-1995
Director, Vermont EPSCoR 1995-2005
Interim Special Assistant to the President 1999
Interim Director of Technology Transfer 1999
Interim CEO Vermont Technology Council 1999
Co-Director, Vermont IDEA Program, 1999-2004
Outreach Core Director, Vermont Genetics Network, 2004-
Research Active Professor Emeritus, University of Vermont, 2005-
Senior Science Advisor, Vermont Center for Emerging Technologies, 2005-
Adjunct Professor, Norwich University, 2005-

Professional Affiliations and Activities

Member, Vermont Academy of Science & Engineering, 2005-
American Chemical Society, Royal Society of Chemistry
Editorial Board, Journal of Inorganic and Organometallic Polymers
International Advisory Board, International Symposium on Inorganic Ring Systems

Honors and Awards:

University Scholar, Physical Sciences 1982-1983
George V. Kidder Outstanding Faculty Award 1986
Phi Beta Kappa, Phi Sigma Phi, Phi Lambda Upsilon
Mass High Tech "All Star" 2000
Dean's Lecture Award, University of Vermont, College of Arts & Sciences, 2004
Luther F. Hackett Award (Vermont Technology Council) 2005

Publication:
Author or co-author of 120 reviewed papers, chapters, reviews and patents in the areas of inorganic ring systems and polymers

MR. BRIAR L. ALPERT (2006)

Name: Mr. Briar L. Alpert

Work Address: BioTek Instruments, Inc. Highland Park,
Box 998,
Winooski, Vermont 05404-0998

Home Address: 271 Hills Point Road
Charlotte Vermont 05445

Work/Home Phone: 802-655-4040, Ext. 258/802-425-4020

Education:

- BS Mechanical Engineering, University of Vermont 1983
- MBA University of Vermont 1993

Professional Experience:

2000 - Present: President, BioTek Instruments, Inc.
1999 - 2000: President, DNI Nevada (a BioTek Subsidiary)
1995 - 2000: VP Operations, BioTek Instruments, Inc.
1990 - 1995: Project Manager, Integrated Systems Products, BioTek Instruments, Inc.
1988 - 1990: Manager of Assembly Operations, BioTek Instruments, Inc.
1986 - 1988: Manufacturing Engineer, BioTek Instruments, Inc.
1984 - 1986: Project Engineer, Pizzagalli Construction Co.

Notable Projects:

- Program Manager for fully automated ELISA system.
- Responsible for all BioTek domestic and international intellectual property including its acquisition, assertion and defense.

  Patents:
  - System for Quantification of Activation of Platelets
  - Method of and Apparatus for Performing Vertical Photometry with Fixed Optical Pathway
  - Universal Washing Apparatus for Microtiter Plates and the Like
  - Methods of Distinguishing Among Strips for Different Assays in an Automated Instrument

- Negotiated and managed multiple BioTek financial structures including asset base financing, syndicated banking deals and international banking.
- Organized and led multiple multimillion dollar domestic and international corporate acquisitions and divestitures including DNI Nevada Inc., Dale Technology Inc. and Kontron Instruments Inc.
- Implemented multiple MRP (Material Requirement Planning), ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management) systems.
- Lead Multiple Strategic Planning Processes.
- Lead multiple negotiations for technology transfer including Automated Fluorescence Microplate Spectrophotometer, Precision Nanoliter Dispenser and Software Data Reduction Modules

Technical – Scientific Accomplishments:

- Achieved carryover specification of less than 1 part per million with non-disposable tips in a fully automated commercially qualified ELISA analyzer.
- Controlled reagent and patient sample fluid movement with accuracy of 1% and coefficient of variation of 2% over a large dynamic range in a fully automated chemistry analyzer.
- Development of the first high quality low-cost ELISA plate reader with powerful onboard data reduction software.
- Evolved microplate instrumentation technology from single channel 96 well absorbance detection to multimode measurement techniques including Fluorescence Intensity, Time Resolved Fluorescence, Fluorescence Polarization, Glow and Flash Luminescence, UV-Vis Absorbance, FRET, TR-FRET, BRET, area scanning and spectral scanning in 96/384/1536 plate format.
- Generated data reduction protocols, algorithms and database software for assay set up and data reduction of life science and analytical results.
- Integration of an ultra low natural frequency centrifuge into a fully automated Agglutination system capable of blood typing and cross matching.
- Development of optimal acceleration profiles for tight control of fluid moving mechanisms.
- Development of truly universal 96/384 well microplate washer that allowed smooth transition for scientist to high-density plate format.

Honors: Member of Beta Gamma Sigma - Mechanical Engineering Honor Society

Public Service: Charter Member and Director, Vermont Center for Emerging Technologies

Personal: Married to Susan Vigsnes, two daughters.
Hobbies: Physical Fitness, Running, Swimming, Biking, Triathlons Tennis, Golf, Boating

MR. STEVEN W. ARMS (2007)

Name: Steven Willard Arms

Address: President, MicroStrain, Inc.
310 Hurricane Lane, Unit 4
Williston, Vermont 05495

Telephone: 802-862-6629

Email: swarms@microstrain.com

Education:

	Pennsylvania State University, 1977-1978
B.S.	Engineering Science, University of Vermont, 1978-1981
M.S.	Mechanical Engineering, University of Vermont, 1981-1984

Professional Experience:

Dec.1986 - present	President, MicroStrain, Inc., Williston, Vermont.
May '81 - Dec. '86	University of Vermont, Graduate Research Engineer, Dept. of Ortho. Surgery
Sept. '81 - June '84	UVM, Graduate Teaching Fellow, Mechanical Engineering
May '78 - May '81	UVM, Student Research Assistant, Dept. of Ortho. Surgery

Professional Affiliations and Activities:

Board of Advisors, UVM, College of Engineering & Mathematical Sciences (CEMS)
Board of Advisors, Vermont Center for Emerging Technologies (VCET)
Board Member, Vermont Science & Technology Council

Honors and Awards:

Gold award, Sensors Expo Chicago, June 2005, for wireless inertial sensing system (Inertia-Link)
Silver award, Sensors Expo Detroit, June 2004, for frequency agile wireless data acquisition system (Agile-Link)
Gold award, Sensors Expo Chicago, June 2003, for remotely powered and interrogated embedded wireless sensing system (EmbedSense)
Top Ten Techie, selected by New England Journal of Technology, Mass High Tech, August 2002
Gold awards, Sensors Expo San Jose, 2002, for 1) Micro-gauging DVRT (MG-DVRT-X) and 2) gyro enhanced orientation module (3DM-G)
Gold award, Sensors Expo Philadelphia, 2001, for gyro enhanced inclinometer (FAS-G)
Gold awards, Sensors Expo Chicago, 2001, for 1) Wireless Web Sensor Networks (WWSN) and 2) Fast Datalogging Micro-Transceiver (MDTxRx)
Vermont Small Business Innovator of the Year Award, to MicroStrain,Inc. for the development of Temperature Compensated Differential Variable Reluctance Transducer (DVRT-TC) for medical and automotive applications.

Publications: 18 total: for selection see www.microstrain.com/scientific-papers.aspx#GGG

Current Research Focus:

The development of micro-miniature displacement, strain, force, and pressure transducers for medical, civil structures, & automotive applications.
Design of low power microelectronic circuits for transducer signal conditioning, remote powering, re-programming, & wireless sensor data transmission.

DR. ALAN K. BETTS (2002)

Name: Alan K. Betts

Address: Atmospheric Research
58 Hendee Lane, Pittsford, VT 05763

Telephone: 802-483-2087

Email: akbetts@aol.com

Education:

B.A.	Natural Sciences (Theoretical Physics, Class I) Cambridge, England, 1967.
M.A.	Cambridge, England, 1971
Ph.D.	Meteorology, London, 1970
Post Doctoral	Colorado State University, 1970-71

Professional Experience:

1979- present	Atmospheric Research, Pittsford, VT
1971-1979	Assistant and Associate Professor, Atmospheric Science, Colorado State University, Fort Collins, CO

Professional Affiliations and Activities:

Fellow, American Meteorological Society
Fellow, American Geophysical Union
Fellow, Royal Meteorological Society
Fellow, American Association for the Advancement of Science
President, Vermont Academy of Science & Engineering, 2005-2007

Honors and Awards:

Lord Kelvin Scholar, Peterhouse, Cambridge, 1966
L.F. Richardson Prize (Royal Meteorological Society), 1974
Alfred P. Sloan Research Fellow, 1976
American Meteorological Society Special Award for GARP Atlantic Tropical Experiment, 1977
American Meteorological Society Meisinger Award, 1978
American Meteorological Society Robert E. Horton Lecturer in Hydrology, 2004
American Meteorological Society Jule G. Charney Award, 2007

Publications:
Author or co-author of more than 140 reviewed papers in Journal of Atmospheric Sciences, Journal of Climate, Monthly Weather Review, Journal of Hydrometeorology, Journal of Geophysical Research, Boundary-Layer Meteorology, Quarterly Journal of the Royal Meteorological Society and other journals.

Atmospheric Research was established in Vermont in 1979. Its mission is to understand the earth's climate, to develop improved earth system models and to help society understand the deep challenge that global climate change presents to humanity.

DR. JOHN BRAMLEY (2004)

Name: John Bramley

Address: Provost Office
348 Waterman Building
University of Vermont,
Burlington VT 05405

Telephone: O: (802) 656-4400
F: (802) 656-1363

Email: john.bramley@uvm.edu

Education:

B.Sc. Bacteriology.	University of Newcastle upon Tyne 1971
Ph.D. Microbiology	University of Reading 1975
D.Sc. Biological Sciences	University of Newcastle upon Tyne 2001

Professional Experience:

2001 -	Provost and Senior Vice President, University of Vermont
1999-2001	Dean , College of Agriculture and Life Sciences, University of Vermont
1990-1999	Chair, Department of Animal Sciences, University of Vermont.
1985-1990	Division Head, Institute for Animal Health, Compton, U.K.
1971- 1985	Research scientist National Institute for Research in Dairying, Shinfield U.K.

Professional Affiliations and Activities:

Member; Vermont Academy of Science & Engineering, 2004
Fellow; Institute of Biology 1990
Member; American Society of Microbiologists

Honors and Awards:
Green Mountain Council, Vermont Citizen of the Year (2004).
Inaugural member of the Vermont Agricultural Hall of Fame (2003).
John Finley Memorial Award Vermont Dairy Industry Association (2001).
Joseph Carrigan Teaching Award of CALS (1998).
Visiting Professor at the College of Veterinary Medicine, Universidad de Austral, Chile (1985
Peter Bridge Award British Cattle Veterinary Association 1984.
Peter Bridge Award British Cattle Veterinary Association 1981
George Fleming Prize of British Veterinary Journal (1975).

Publications:

Seventy plus peer reviewed articles, 100 + other articles, book chapters.

Patents:
US Patent No. 6,875,903.

Research Interests:

Bovine mastitis, staphylococcal infections, disease pathogenesis

Teaching Interests:

Animal Science, animal disease and microbiology
Professor of Animal Science, College of Agriculture and Life Sciences, University of Vermont
Professor of Microbiology and Molecular Genetics, College of Medicine, University of Vermont

DR. EDWIN G. BOVILL (2008)

Name: Edwin G Bovill

Address: Department of Pathology
E203 Given Building
University of Vermont College of Medicine
Burlington, Vermont 05405

Email: edwin.bovill@uvm.edu

Education: A.B. Dartmouth College 1968 (Government-honors)
M.D. University of California San Francisco 1972

Residency: General Surgery: USA (University of Hawaii), New Zealand (Otago University) and UK (Cambridge University); followed by Pathology training Canada (McGill University) and USA (University of Vermont). 1972-1981. Fellowship in Coagulation: Universities of Minnesota and University of California, San Francisco 1981-82.

Academic and Professional Appointments:
Assistant Professor of Pathology, University of Vermont College of Medicine; Director of Special Coagulation Laboratory, Medical Center Hospital of Vermont 1982-1987
Associate Professor of Pathology, University of Vermont College of Medicine; Director of Special Coagulation Laboratory, Medical Center Hospital of Vermont 1988-1993
Professor and Chairman of Pathology, University of Vermont College of Medicine; Director of Laboratories, Fletcher Allen Health Care; 1993-present

Professional Affiliations and Activities:
Fellow, Royal College of Surgeons, Edinburgh 1979-present
Fellow, American Society of Clinical Pathologists 1982-present
Fellow, College of American Pathologists 1982-present
International Society on Hemostasis and Thrombosis 1982-present
Fellow, Academy of Clinical Laboratory Physicians and Scientists 1984-present
- National Residency Curriculum Revision Steering Committee (2004-present)
- Executive Council, (2005-present)

Fellow, American Heart Association 1985-present
- Council on Thrombosis (1988-1997)
- Executive Committee (1994-1997)

Fellow, American Society of Hematology (ASH) 1985-present
National Committee for Clinical Laboratory Standards 1989-1993
Association of Pathology Chairs 1993-present

Honors:
Casque and Gauntlet Senior Honor Society; Dartmouth College 1967
Alpha Omega Alpha, Honorary Medical Society 1984

Publications:
Author or co-author on 160 peer reviewed publications in: Blood, Journal of Thrombosis and Haemostasis, Human Pathology, J Biol Chem, Am J of Clinical Chemistry, Am J of Clin Pathology, Annals of Internal Medicine, American Journal of Medicine, Journal of the American Medical Association and others. Authored 31 book chapters.

Research focus:
Dr Bovill's research in recent years has been focused on the pathogenesis of venous thromboembolic disease, a common chronic disease with serious public health implications. Efforts have been focused on gene discovery using genetic linkage strategies in case/control and large family studies. One family (n=800) resides in Northern Vermont and Quebec. His laboratory has recently identified a novel candidate thrombosis risk gene that plays a role in

endothelial cell adhesion and thromboresistance which is now being characterized in endothelial cells, human tissue samples and animal models.

DR. JOHN M. BURKE (1998)

Name: John M. Burke

Address: University of Vermont
Dept. of Microbiology & Molecular Genetics
95 Carrigan Drive
220 Stafford Hall
Burlington, VT 05405

Telephone: O: (802) 656-8503
F: (802) 656-5172

Email: john.burke@uvm.edu

Website: www.uvm.edu/microbiology/individual_researcher.php?id=107

Education:

Ph.D.	Microbiology	Massachusetts Institute of Technology, 1983
M.S.	Microbiology	University of Vermont, 1978
A.B.	Chemistry	Middlebury College, 1975 (High Honors, *cum laude)*

Professional Experience:

1998-2003	Vice Provost for Research and Graduate Education, University of Vermont, Burlington, Vermont
1999-2000	Interim Dean of the Graduate College, University of Vermont, Burlington, Vermont
1996-present	Professor of Microbiology and Molecular Genetics, University of Vermont, Burlington, Vermont
1992-1996	Associate Professor of Microbiology and Molecular Genetics, University of Vermont, Burlington, Vermont
1992-present	Member, Vermont Cancer Center, 1992; 1998-2003, Governing Board
1988-1992	Assistant Professor of Microbiology and Molecular Genetics, University of Vermont, Burlington, Vermont
1983-1988	Assistant Professor of Chemistry, Williams College, Williamstown, Massachusetts
1975-1976	Assistant in Chemistry, Middlebury College, Middlebury, Vermont

Professional Affiliations and Activities:

American Association for the Advancement of Science (1978 – present).
American Chemical Society (1975 – present).
American Society for Biochemistry and Molecular Biology (1992 – present).
American Society for Microbiology (1976 – present).
American Society of Gene Therapy (2000 – present).
International Society for Antiviral Research (2000 – present).
The RNA Society (1994 – present).

Honors and Awards:

Phi Beta Kappa, Middlebury College, 1975
National Science Foundation Graduate Fellowship, UVM and MIT, 1976 – 1979
National Institutes of Health Graduate Trainee, MIT, 1979 – 1983
Sigma Xi, MIT, 1983
Vermont Academy of Science and Engineering, 1998

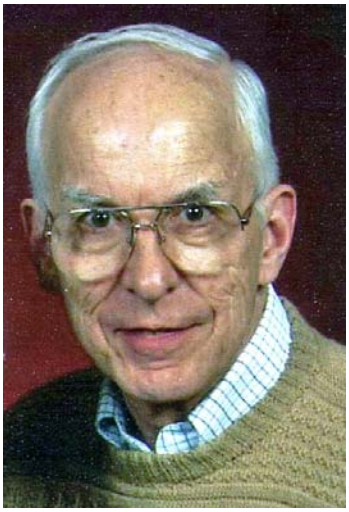
Publications:

Author or co-author of more than 80 peer-reviewed papers, 100 conference papers, and 125 invited research talks since 1992 on ribozymes, RNA processing, and RNA-protein interactions as well as *in vitro* selection, antiviral applications of ribozymes and targeted RNA cleavage.

Research Interests:

Structure and mechanism of hairpin and hammerhead ribozymes
Ribozyme applications for antiviral therapy and functional genomics
Computational and biochemical approaches to RNA tertiary structure
In vitro selection and combinatorial approaches to ribozyme structure and activity

DR. DALE CRITCHLOW (1996)



Name: Dale Critchlow

Address: 260 Crescent Road, Burlington, VT 05401

Telephone: 802-864-5404

Email: critchlo@emba.uvm.edu

Education: BSEE Grove City College, 1953
MSEE, Carnegie Institute of Technology, 1954
Ph.D. EE, Carnegie Institute of Technology, 1956

Professional Experience:

1956-1958 Assistant Professor of Electrical Engineering, Carnegie Institute of Technology
1958-1964 IBM Research: Tunnel diode circuits and high-speed modems
1964-1976 IBM Research: R&D of the n-MOSFET technology for logic and memory
1976-1993 IBM Microelectronics Division: Development MOSFET technologies for 64Kb through 256Mb DRAM
1993-2005 Adjunct Professor in Electrical and Computer Engineering, University of Vermont

Professional Affiliations and Activities:

Institute of Electrical and Electronics Engineers, IEEE
National Academy of Engineering, NAE
Founding Member of Vermont Academy of Science & Engineering, VASE

Honors and Awards:

IBM Outstanding Invention Awards in 1965 and 1970
IBM Outstanding Contribution Awards in 1968, 1973, 1985 & 1990
Elected IEEE Fellow in 1985
Appointed IBM Fellow in 1986
Elected to National Academy of Engineering in 1987
Founding member of IBM Academy of Technology in 1989

Publications:

Author or co-author of about 40 reviewed papers primarily in IEEE publications.

Patents:

Inventor or co-inventor of about 20 patents and patent publications in communications and integrated circuit technologies.

DR. ROBERT C. DEAN, JR. (2002)

Name: Robert C. Dean, Jr.

Address: P.O. Box 318, 5 Penny Lane
Norwich, VT 05055

Telephone: O: (603) 448-5454
H: (802) 649-1324
F: (603) 448-0380

Email: rcd@synnovations.com

Website: www.synnovations.com

Education:

B.S., Mechanical Engineering	MIT, 1948
M.S., Mechanical Engineering	MIT, 1949
Sc.D., Mechanical Engineering	MIT, 1954

Academic and Teaching Experience:

1989-1993 Adjunct Professor of Mechanical Engineering, Northeastern University
1961-1967 Associate Professor of Engineering, Thayer School of Engineering, Dartmouth College.
1967-present Professor of Engineering (now Professor of Engineering, adjunct).
1951-1956 Assistant Professor, Massachusetts Institute of Technology, Mechanical Engineering Department, Gas Turbine Laboratory

Industrial Experience:

2000-present Chairman, Founder, SIMBEX LLC
1996-present Founder, President, Synergy Innovations, Inc., Lebanon, NH
Founder, President (1989-1992), Chairman (1989-1996), Synergy Research Corporation, West Lebanon, NH
1987-1989 Founder, Chairman, PerSeptive Biosystems, Inc. (formerly Synosys Corp.), Framingham, MA
1979-1987 Founder/President (1979-1983), Chairman/Director of Science & Technology (1983-1987), Verax Corp., W. Lebanon, NH
1976-1979 Co-founder, Chairman, Principal Engineer, Creare Innovations Inc., Hanover, NH
1985-1997 Co-founder, President (1968), Director (1985-1997), Hypertherm, Inc., Hanover, NH
1961-1976 Founder, Chairman, President, Creare Incorporated, Hanover, NH
1960-1961 Director of Research, Thermal Dynamics Corporation, West Lebanon, NH
1956-1960 Head, Advanced Engineering Department, Ingersoll-Rand Company, Phillipsburg, NJ

Professional Memberships & Committees:

Member: ASME, ACS, ASM
Board of Directors: Creare Inc. 1961-80; Creare Innovations Inc. 1976-86; Creare Products Inc. 1978-83; LOGIC Associates 1982-85; Hypertherm Corp. 1985-1997; Synosys Corp. 1987-89. Synergy Research Corp. 1989-1997; Synergy Innovations, Inc. 1996-present; Upper Valley Business and Eduation Partnership 1998-present.

ASME Turbomachinery Institute: Co-founder, Chairman, Board of Directors, 1967-68.
Journal of Fluids Engineering, Founding Editor (Trans. ASME), 1973-78.
Engineering Advisory Council, Stanford University, 1979-86.
Board of Directors, Cook Center, Thayer School of Engineering, Dartmouth College, 1979-84.
ASME Fluids Engineering Division, Chairman, 1962-63.
National Research Council, Committee on Bioprocess Engineering, 1991-1993.
National Academy of Engineering Education Advisory Committee, 1987-1990.
National Academy of Engineering Peer Committee on Biotechnology, 1987-1993, Chairman 1989.
Bioprocess Engineering Program, ASME, Founder and Chairman, 1987-89, Director of Education 1987-1990, Editor 1987-1993, Executive Comm. 1987-1995.
Advisory Council on Engineering and Mathematics to the President, University of Vermont, 1987-1991.
Advisory Board on Biotechnology Program, Thayer School, Dartmouth College, 1988-1992.
Advisory Board, Center for Innovation in Engineering, Texas A & M University, 1989-1991.
National Research Council, Committee on Bioprocess Engineering, 1991-1993.
NIH Center for Scientific Review Group, Geriatrics & Rehabilitation Medicine Section, 1999-present.
NIH, Center for Scientific Review Group, Muscular, Skeletal & Dental Integrated Review, 1999-present.
NSF Biomedical Engineering, Research to Aid Persons with Disabilities Review Panel; 2000-present.

Honors & Awards:

National Academy of Engineering, elected 1977
Fellow, ASME, elected 1978
Fluids Engineering Division Award, ASME, 1979
ASME Distinguished Lecturer, 1988-1993
Tibbetts Pioneer Award for contribution to the Small Business Innovation Research Program, 1996
The ASME Gold Medal, American Society of Mechanical Engineers, 1996
NHHTC Lifetime Achievement Award, New Hampshire High Technology Council, 1998

Publications:

Author, co-author, or editor of over 55 reviewed papers, books, conference proceedings; over 300 proprietary engineering project reports; and over 300 proprietary reports.

US Patents:

Inventor or co-inventor of 22 issued and approximately 10 pending patent applications.

MR. JEFF FINKELSTEIN (2004)

Name: Jeff Finkelstein

Address: 6243 Spear St, Charlotte, VT 05445

Telephone: 802-425-6422

Education: B.S. Electrical Engineering, SUNY Stony Brook, 1981
Biomedical Engineering Graduate Studies, University of Vermont, 1988-1992

Email: jfink@updesigns.com

Professional Experience:

1987 - Present: Microprocessor Designs Inc, President, Shelburne, Vermont
1997 - 1999: Assured Digital, Director of Hardware Engineering, Littleton, Massachusetts
1985 -1986: AOX Inc, Senior Development Engineer, Norwood, Massachusetts
1984 -1985: M/A-Com Linkabit Corporation. Senior Development Engineer, Lexington, Massachusetts
1982 -1984: M/A-Com Linkabit Corporation, Development Engineer, San Diego, California
1981 -1982: Manufacturing Engineer, Hewlett-Packard, San Diego, California

Notable Projects (Company: Project)**:**

Genzyme: Quantitative Muscle Measurement System
Liquid Measurement Systems: Fuel Gauge Controllers
Underground Systems: PowerDonut
Northern Power Systems: Power Systems Controllers
Thought Technology: MyoTrac Infinity
Concept2: PM3 Monitor
Segway: Human Transporter
Lynx System Developers: Reactime, SeriaLynx
Assured Digital: VPN Systems
Parentech: Nature's Cradle
Innovative Sports Training: Motion Monitor, SwingTrainer
Fasstech/SRS: Regain Biofeedback Trainer
DEKA: HomeChoice Portable Dialysis, Stirling Engine Controller
Ascension Technology: Flock of Birds, Extended Range Transmitter

Patents:

6,736,233	Electro-mechanical actuator for an adjustable pedal system
6,098,000	Interactive, individually controlled, multiple bladder seating comfort adjustment system and method
6,088,643	Interactive, individually controlled, multiple bladder seating comfort adjustment system and method
6,088,642	Interactive, individually controlled, multiple bladder seating comfort adjustment system and method
5,845,350	Cradle Mattress
5,438,510	User interface and monitoring functions for automated peritoneal dialysis systems

DR. PAULA FIVES-TAYLOR (1996)

Name: Paula Fives-Taylor

Address: 6 Larch Road
So. Burlington, VT 05403

Telephone: (802) 863-6043

E-mail: Paula.Fives-Taylor@uvm.edu

Education:

Ph.D.	Microbiology, University of Vermont, Burlington, VT, 1973
M.S.	General Science, Villanova University, Villanova, PA, 1965
B.S.	Education and the Humanities, St. Thomas Aquinas College, Sparkill, New York, 1958

Professional Experience:

1986 - present	Professor, Department of Microbiology and Molecular Genetics, The University of Vermont (UVM), Burlington, Vermont
1985-1986	Professor, Department of Medical Microbiology UVM
1985-1995	Founder and Vice-President of Genetics Resources
1979-1985	Associate Professor, Department of Medical Microbiology UVM
1974-1979	Assistant Professor, Department of Medical Microbiology UVM
1972-1974	Instructor, Biology, Trinity College, Burlington, Vermont
1972-1974	Instructor, Department of Medical Microbiology UVM
1968-1972	Teaching Assistant, Biology, Medical Microbiology, UVM
1960-1968	Biology, Religion, Geometry, Earth Science and Chemistry Teacher, New York City High Schools.
1955-1960	Elementary School Teacher, New York City.

Honors and Awards:

Elected to the American Academy of Microbiology, 2003
International Research in Oral Biology Award from International Assn. Dental Research, 2001
American Heart Association Study Section, 2000-2002
Vogelmann Award for Outstanding Research, University of Vermont, 2000
Kidder Award, The Outstanding Faculty Member at The University of Vermont, 1999
Chair, Ethics Committee, International Association of Dental Research - 1996
Elected to Vermont Academy of Science and Engineering - 1996, President 1999-2001.
President, Microbiology Division of the International Assn. of Dental Research, 1994-1996
Merit Award for Sustained Excellence in Research, National Institute of Health, 1994-2004
Blue Ribbon Panel on Envisioning the Future of the NIDR Intramural Research Program, 1993.
National Advisory Council, NIH, NIDR, 1991-1994
American Society of Microbiology Foundation Lecturer, 1990-1991, 1998-2000
University Scholar, 1989-1990, "for outstanding and sustained research and scholarly contributions", NIH Oral Biology and Medicine Study Section, 1986-1990, 1995-1999
Medical School Basic Science Teacher of the Year, 1985
National Science Teacher's Association Outstanding Teacher of the Year Award, 1968.
Elected to Sigma Xi - Research Honor Society, 1976
Elected to Alpha Omega Alpha, Medical Honor Society, 1988
Selected as one of 20 outstanding faculty at UVM (Mind Power Program) to represent research at the University Vermont to the public
Selected by National Science Foundation to be one of 30 outstanding women scientists to speak to high school students to encourage women to enter science
Selected as outside thesis examiner by the University of Alberta, University of Texas Health Science Center, and the University of British Columbia

Recipient of one of 20 national fellowships to participate in American Medical Women's Association First Leadership Conference
Who's Who in American Women
National Defense Education Association Fellowship
National Science Foundation Fellowship
B.S. Cum Laude

Professional Affiliations:
American Society for Microbiology; Sigma Xi; American Association of Medical Colleges; International Association for Dental Research; American Women in Science; Graduate Women in Science; Vermont Botanical Club; Women of UVM.

Grants and Contracts:
Life Savers Corporation: Adherence factors of oral streptococci, 1981-1985
GBRS: Adherence factors of *S. sanguis* FW213, 1981-1984
NIH: Fimbriae of *S. sanguis* and their role in adhesion, 1981-1984
NIH: Cloning of the fimbriae genes of *S. sanguis*, 1984-1987
Manchester and O'Neil: Microbiological Studies of Intrauterine Devices (IUD), 1982-1987
Stone and Associates: Microbiological Studies of Intrauterine Devices, 1985-1987
Robbins, Zelle, Larson and Kaplan: Microbial Attachment to IUD's, 1985-1989
National Science Foundation: Microbial Attachment to Cellulose Fibers, 1986-1989
NIH: Fimbriae of *S. sanguis*: A genetic approach, 1987-1992
Robbins, Zelle, Kaplan, and Larsen, Adhesion of microorganisms to intrauterine devices, 1986 1989
Proctor and Gamble, Inc. Purification of *S. sanguis* adhesive protein from *E. coli.*, 1988-1989, Renewed 1989-1990 and 1990-1991
NIH: Molecular Studies: Invasion and Adhesion of Periopathogens, 1992-1997
NIH: Genetic Analysis: Adhesion of *S. sanguis* to the salivary pellicle, 1994-1999 (merit award; can be extended until 2004)
Hatch Grant: Entomopathogenic Fungi: Their microbiology, fate in soil, and effect on non-targets, 1993-1996
NIH: Molecular Studies: Adhesion and Invasion of Periopathogens, 1997-2003
NIH: Genetic Analysis: Adhesion of *S. sanguis* to the salivary pellicle, 1999-2004
NIH: Molecular Studies: Adhesion and Invasion of Periopathogens, 2003-2008
NIH: Genetic Analysis: Adhesion of *S. sanguis* to the salivary pellicle, 2004-2009

Service to professional societies:
New England Medical School Women Administrators Assoc. Vice President and President
Women's Liaison Officer to Assoc. of Med. Colleges
Planning Committee for Annual Meeting of Association of Medical Colleges
Co-organizer First International Congress on Pili
Science Curriculum Consultant for New York City
New York City Science Council
Workshop Chairperson for Second Annual Women, Women, Women Conference.
NIDR Council Report to the National House of Representatives

Patents:
Process For Treating Oral Cavity - Serial Number 714,948, issued 1987.

Research:
Early events in bacterial pathogenicity: adhesion to host tissue and invasion of cells. .

Publications:
Author, co-author, or editor for 3 books, 87 peer reviewed papers, 80 conference publications and over 100 keynote addresses, special lectures, or courses.

Teaching Interests: Microbiology, infectious diseases, molecular biology

DR. TED B. FLANAGAN (2002)

Name: Ted B. Flanagan

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Dept. of Chemistry
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Education: B.S., Chemistry (with honors), University of California (Berkeley), 1951
Ph.D., Physical Chemistry, University of Washington (Seattle), 1955
Post-doctorate, Queen's University of Belfast, N. Ireland, 1957-59

Professional Experience:

1955-1957 U.S. Army
1959-1961 Associate Physicist, Solid-State Physics Department, Brookhaven National Laboratory
1961-present Chemistry Department, University of Vermont

Honors and Fellowships:

Chairman of Gordon Research Conference on the "Formation and Properties of Metal Hydrides," Tilton School, N.H. July 20-24, 1981. (This was the first of such Gordon Conferences on this topic and the idea originated with TBF. The conference was quite successful and since then, conferences have been held on this theme; i.e., 1983, 1985, … 2003).
International Exchange of Scholars (Fulbright Program) 1980-1983. Member, for Three-year period, of International Advisory Board for Chemistry
Member, Editorial Board, Journal of Alloys and Compounds, 1983□present.
Member, International Steering Committee, "Metal Hydrogen Systems" conference, 1982-present.
Indo-American Fellow, Indian Institute of Technology, Madras, India, 1987 (two month period).
Guest Professor, KFA (Jülich, F.R. Germany), Solid State Phys. Inst., the months of January, 1987 through 1992 and summer of 1988.
Doctor of Philosophy, honoris causa, Uppsala University, June 1992.
Visiting Professor, Department of Chemistry, Université de Paris-Sud, Orsay, France, October - November, 1992 and September 1996.
Visiting Professor, Department of Applied Physics, University of Perugia, May 17-21, 1993.
Member, Editorial Board, Intermetallics, 1996-1998
Member, Advisory Board, Materials Science Forum, 1996-2000
Member, Vermont Academy of Science
Consultant, Los Alamos National Laboratory, 1988-1995.
Consultant, Mound Laboratory, 1982-1988
Consultant, Aerojet, 1980-1985
Consultant, United Technologies, 2005-present

Publications:

Author /co-author of 320 papers in referred journals.

Research Interests:

Flanagan has concentrated on metal hydride systems for most of his scientific career. Flanagan and his coworkers have investigated H2 absorption/desorption by pure metals, e.g., Ti, Zr, Nb and intermetallic compounds such as LaNi5 and ZrNi using pressure composition isotherms and reaction calorimetry. The understanding of the thermodynamics of these systems have also been a topic of research, e.g., hysteresis, solvus values. The absorption of H2 by Pd and its alloys has also been an active topic of investigation especially the role of defects such as dislocations and internal interfaces. The effect of order in Pd3 Mn on H2 solubilities has been studied and complemented with neutron diffraction, and inelastic neutron scattering.

DR. NAOMI K. FUKAGAWA (2008)

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Education: 1976 B.S./M.D.Northwestern University (Honors Program in Medical Education) Chicago, IL
1985 Ph.D. Massachusetts Institute of Technology, Cambridge, MA

Postdoctoral Training:

1976-1978	Internship and Residency, The Children's Hospital of Philadelphia,University of Pennsylvania, Philadelphia
1978-1979	Chief Resident, Pediatrics, University of Vermont, Burlington
1981-1985	Fellow, Pediatric Gastroenterology/Nutrition, Harvard Medical School, The Children's Hospital, Boston
1981-1986	Research Fellow, Clinical Research Center, Massachusetts Institute of Technology, Cambridge ; Harvard Medical School, Massachusetts General Hospital, Boston; Department of Applied Biological Sciences, Massachusetts Institute of Technology (MIT), Cambridge

Academic Appointments:

1987-1993	Instructor and Assistant Professor, MIT Division of Health Sciences and Technology, Whitaker College MIT, Cambridge
1988-1994	Assistant Professor, Department of Pediatrics and Division on Aging, Harvard Medical School, Boston
1993-1995	Assistant Professor, The Rockefeller University, New York
1995-present	Associate Professor and Professor (Tenured), Department of Medicine, UVM
2004-present	Professor (Tenured), Department of Medicine, UVM
1995-present	Associate Program Director, The Clinical Research Center, UVM
1995-present	Acting Director, Gerontology Unit, Department of Medicine, UVM and Fletcher Allen Health Care, Burlington, Vermont

Professional Affiliations and Activities:

American Society for Clinical Investigation
American Society for Nutrition (American Society for Clinical Nutrition)
Association for Patient-Oriented Research
Associate Editor, *American Journal of Clinical Nutrition*

Publications:

Author or co-author of 80 peer-reviewed & invited manuscripts in major biomedical journals

DR. RICHARD A. GALBRAITH (2003)

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Website: www.uvm.edu/~compor

Education:

3 "A" Levels	Hurstpierpoint College, Sussex, England, 1963-1968
2nd M.B.	King's College, University of London, England, 1969-1971
M.B.B.S. (M.D.)	King's College Hospital Medical School, London (Medical Bachelor, Bachelor of Surgery; M.D.), 1971-1974
Ph.D.	Graduate School, Medical University of South Carolina, Charleston, SC, 1978-1981

Professional Experience:

1995-present	Attending Physician, Fletcher Allen Health Care, Burlington, VT
1995-present	Chief of the Division of Clinical Pharmacology, Department of Medicine, UVM/Fletcher Allen Health Care, Burlington, VT
1995-present	Associate Dean for Patient Oriented Research, College of Medicine, University of Vermont, Burlington, VT
1995-present	Program Director, University of Vermont/Fletcher Allen Health Care, General Clinical Research Center, Burlington, VT
1990-1995	Medical Director and Administrator, Rockefeller University Hospital, New York, NY
1988-1995	Program Director, Rockefeller University Hospital General Clinical Research Center, New York, NY
1988-1995	Physician, Rockefeller University Hospital, New York, NY
1984-1995	Attending Physician, New York Hospital, New York, NY
1983-1988	Associate Physician, Rockefeller University Hospital, New York, NY
1980-1983	Attending Physician, M.U.S.C., Charleston Memorial Hospital and Charleston Veterans Administration Hospital, Charleston, SC

Professional Affiliations and Activities:

1977	Member, The Royal College of Physicians of the United Kingdom
1981	American Federation for Medical Research
1982	American College of Physicians
1988	National Association of GCRC Program Directors
1991	American College of Physician Executives
1991	The Royal Society of Medicine
1991	The American Society of Clinical Investigation
1992	Fellow, The Royal College of Physicians
1992	Member, The American Institute of Nutrition
1992	Member, The North American Society for the Study of Obesity
1992	Fellow, The American Society for Clinical Nutrition
1996	Member, Vermont Medical Society

1998	Member, Oxygen Society
1999	Founding Member, the Association for Patient-Oriented Research
2003	Member, Vermont Academy of Science and Engineering

Honors and Awards:

1980	Winner, Post-Doctoral Research Competition, M.U.S.C.
1982-1985	Hartford Foundation Research Fellowship Award
1986-1991	Fellow, Surdna Foundation
1992	Fellow, The Royal College of Physicians

Publications:

Author or co-author of 73 journal articles.

Research Interests:

Obesity, Appetite Control

DR. WILLIAM E. GEIGER, JR. (2009)

Name: William E. Geiger, Jr.

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University of Vermont, Burlington VT 05405

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Email: william.geiger@uvm.edu

Education: B.S. Canisius College, Chemistry, 1965
Ph.D. Cornell University, Analytical Chemistry, 1969

Professional Experience:

1968-69 Research Associate, Univ. of California at Riverside
1969-70 Postdoctoral Research Associate, Northwestern Univ.
1970-74 Assistant Professor, Southern Illinois Univ.
1974-77 Assistant Professor, Univ. of Vermont
1977-82 Associate Professor, Univ. of Vermont
1982-Present Professor, Univ. of Vermont
1997-Present Pomeroy Professor, Univ. of Vermont
1998-2001 Chair, Department of Chemistry, University of Vermont

Honors and Awards:

1984 University of Vermont Scholar
1995 James Crowdle Award, Canisius College
2009 Dean's Lecturer, University of Vermont

Professional affiliations and activities:

Member, American Chemical Society (ACS)
Division of Analytical Chemistry
Division of Inorganic Chemistry
Society for Electroanalytical Chemistry (SEAC)
1979 Visiting Professor, Massachusetts Institute of Technology
1986 Professeur Associe, Univ. of Bordeaux
1985-88 Editor, Newsletter of SEAC
1989-91 Editorial Advisory Board, Organometallics
1992-95 Board of Directors, SEAC
1996 Graduiertenkolleg Lecturer, Univ. of Freiburg
1997-98 Editorial Board, Chemtracts
1998 Leverhulme Fellow, University of Bristol
2000 Erskine Fellow, University of Canterbury
2007 Visiting Professor, University of Arizona

Publications:
Author or co-author of more than 190 peer reviewed articles.

Research interests: Molecular electrochemistry, especially of organometallic systems. Design of new electro-catalysts for low-energy synthesis of desirable organic compounds. Bio-organometallic chemistry.

DR. RICHARD M. GREENWALD (2006)

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Education: B.S.E. Biomedical Engineering, Duke University, Durham, NC, 1986
M.S.E. Biomedical Engineering, Thayer School, Dartmouth College, Hanover, NH, 1988
Ph.D. Bioengineering, University of Utah, Salt Lake City, UT, 1997

Professional Experience:

06/00 - President, Founder, Simbex LLC, Lebanon, New Hampshire.
Product Development for the Medical Rehabilitation and Sports Protective Equipment markets.
07/04 – Adj. Associate Professor Engineering, Thayer School, Dartmouth College, Hanover, NH.
09/01 – 7/04 Adj. Assistant Professor Engineering, Thayer School, Dartmouth College, Hanover, NH.
06/98 – 01/01 Adj. Assistant Professor Orthopedics, Brown University School of Medicine, Providence, RI
12/97 – 01/05 Executive Director/Founder, National Institute for Sports Science and Safety, Providence, RI
12/97 – 05/00 US Director Orthopedics/Sports/Rehabilitation, TUV Product Service, Providence, RI
07/97 – 06/98 Research Instructor, Department of Bioengineering, University of Utah, Salt Lake City, UT
03/97 – 06/98 Adj. Assistant Professor, Exercise and Sports Science, University of Utah, Salt Lake City, UT
03/94 – 12/97 Director, Orthopedic Biomechanics Institute, Salt Lake City, UT
01/93 – 05/00 Consultant/Owner, MD SporTech, Park City, UT/Providence, RI
06/92 – 06/94 Systems Engineer, Innovative Research and Development, Salt Lake City, UT
08/91 – 03/94 Systems Engineer, Orthopedic Biomechanics Institute, Salt Lake City, UT
11/88 – 08/91 Consultant/Software Engineer, Microprocessor Designs, Shelburne, VT
03/88 – 08/88 Research Engineer, Vermont Ski Safety Equipment, Inc., Underhill, VT

Professional Affiliations and Activities:

President – International Society for Skiing Safety, 2005-
Member, National Advisory Board on Medical Rehabilitation Research (NABMRR), NIH/NICHD, July 2006 -
Reviewer, Veterans Administration, Rehabilitation Research Panel, 2004-
Reviewer, National Institutes of Health, Rehabilitation Sections, 2001-
Chairman, ASTM F-08.26 – Baseball and Softball Committee, 2000-
Member - International Society of Biomechanics, 1999-
Member – ISO Technical Committee 83/SC3/WG7 Ski Equipment – 1999-2004
Journal Reviewer – Journal of Biomechanical Engineering, 1998-
Member - ASTM F-8 Committee on Sports Equipment, 1998-
Board Member - International Society for Skiing Safety, 1997-
Grant Reviewer- National Operating Committee for Standards in Athletic Equipment, 1997-
Journal reviewer - Journal of Applied Biomechanics, 1997-
Member - American Society of Biomechanics, 1996-
Member - ASTM F-27 Committee on Skiing Safety, 1993-
Member - International Society for Skiing Safety, 1993-

Patents and Awards:

Dr. Greenwald holds 3 US patents, with 5 patents pending. He has received grants from the National Institutes of Health, National Science Foundation, Department of Defense (U.S. Air Force and U.S. Army), United States Olympic Committee, National Operating Committee on

Standards in Athletic Equipment (NOCSAE), and the Sporting Goods Manufacturers Association.

Publications:
Dr. Greenwald has 31 peer reviewed publications in Journal of Applied Biomechanics, Skiing Trauma and Safety, American Journal of Sports Medicine, Journal of Prosthetics and Orthotics, Journal of Biomechanical Engineering, and other journals.

MR. L. FREDERICK HACKETT (1996)

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Email: pbates@hvm.com

Website: www.hvm.com

Education: B.A., Economics & Political Science, University of Vermont, 1955

Professional Experience:

Chairman/CEO
HVM Corp. (holding company)
Hackett & Company (employee benefits)
Yankee Captive Management, Inc. (captive insurance management)

Vice Chairman
Yankee Insurance Group (holding company)
Hackett, Valine & MacDonald, Inc.

Current Professional Directorships and Affiliations:

Chairman, Vermont Center for Emerging Technologies
Director, Catamount Energy Corporation
Director, Vermont Technology Council
Director, Vermont Institute for Government Effectiveness
Member, Governor's Council of Economic Advisors
Member, Vermont Department of Commerce Advisory Board
Honorary Member, Vermont Academy of Science & Engineering

Past Professional Directorships and Affiliations:

Chairman, Banknorth Group, Inc. (1989-1998)
Chairman, Vermont Electric Power Company, Inc. (1983-2004)
Chairman, Vermont Electric Transmission Company, Inc. (1983-2004)
Chairman, Vermont Technology Council (1992-1997)
Chairman, Howard Bank (1983-1989)
Director, Howard Bank (1972-1982)
Director, New England Telephone Company, Inc. (1981-1995)
Director, Central Vermont Public Service Company, Inc. (1979-2004)
Director, Central Vermont Railway, Inc. (1978-1995)
Director, Banknorth Group, Inc. (2000-2003)
Member, Governor's Council on Workers' Compensation (1994)

Vermont House of Representatives
    Elected 1965
    Member, House Committee on Education
    Republican Majority Leader (1967-1968)
    House Committee on Appropriations (Member, 1967-1968; Chairman 1969-1970)
    Member, Legislative Council (1967-1968)
Chairman, Joint Fiscal Committee of the Vermont House and Senate (1969-1970)
Chairman, Vermont Social Welfare Board (1971-1972)
Director, United Community Services (1971-1975)
University of Vermont (Trustee, 1971-1977, 1986-1994; Chairman 1991-1993)
Director, Vermont Achievement Center (1971-1977)
Member, United States Air Force Academy Advisory Board (1971-1974)
Governor's Council of Economic Advisors (Member 1971-1972, 1991-present; Chairman 1977-1984, 1991)
Republican National Committeeman for Vermont (1977-1979)
The Shelburne Museum (Trustee, 1981-1991; Treasurer, 1983-1991)
Director, Greater Burlington Industrial Corporation (1982-1988)
Director, Associated Industries of Vermont (1984-1988)
Director, Vermont Community Foundation (1985-1992)
Director, United States Biathlon Association (1985-1989)
Director, Vermont Captive Insurance Association (1997-1999)

Honors and Awards:

Honorary Degree, Doctor of Laws, University of Vermont, 1979
Vermont Chamber of Commerce Citizen of the Year Award (1997)
Thomas Chittenden Award for Community Service,
    Lake Champlain Regional Chamber of Commerce (1990)
National Governors Association Distinguished Service Award (August 1983)
Greater Burlington Industrial Corp. – Excellence in Economic Development (June 1998)
AGC Richard A. Snelling Economic Development Award (November 2002)
Vermont Independent Agents Association Brigham/Alfred Award (June 2003)

DR. BERND HEINRICH (1997)

Name: Bernd Heinrich

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Marsh Life Science Building
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H: (802) 482-2848
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Education:

B.A. Zoology	University of Maine, Orono, 1964
M.S. Zoology	University of Maine, Orono, 1966
Ph.D. Zoology	University of California, Los Angeles (awarded "with distinction"), 1970
Postdoctoral	University of California, Los Angeles, 1970

Professional Experience:

Professor, University of Vermont, 1981-2003
Professor, University of California, Berkeley, 1978-1981
Assistant Professor, University of California, Berkeley, 1971-75

Honors and Awards:

Guggenheim Fellow, 1976-77
Harvard Fellow, 1976-77
University of Vermont Scholar in the Biological Sciences, 1985
Alexander von Humboldt Senior Scientist Fellowship Award, 1988-89
(from Federal Republic of Germany)
Lady Davis Fellowship (From Israel), ~1992
L.L. Winship Book Award (For In a Patch of Fireweed), 1984.
Burroughs Writing Award (For An Owl in the House), ~1991.
Rutstrom Authorship Award for Conservation and Environmental Writing
(For A Year in the Maine Woods), 1996.
Sigma Xi Lecturer, 1995-1997
Maine Sportsmen's Hall of Fame, 2000.
Outstanding Science Trade Book for Children (By Children's Books Council)
Member Vermont Academy of Science and Engineering, 1997.
Member Vermont Academy of Arts and Sciences, 1998.
Franklin Fairbanks Award for contributions of Vermont Culture, 1997.
New England Bookseller's Award for Nonfiction for 1998.
John Burroughs Medal for nature writing (for Mind of the Raven), 2000.
Honorary Doctorate, University of Maine, Farmington,1999.
Honorary Doctorate, Unity College, Maine, 2000.
Numerous television documentaries and appearances (For work on bumblebee foraging, caterpillar feeding behavior, raven recruitment, raven intelligence).

Publications:

Author or co-author of 107 research publications; 46 editorials, abstracts, or book reviews; 61 magazine articles, 15 books, and 32 book chapters.

Research Interests:

Physiological and behavioral ecology

MR. PETER HEINZ (1998)

Name: Peter Heinz

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Waterbury, VT 05676

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Education:

B.Sc.Eng.	Heilbronn, Germany, 1966
MBA	University of Bridgeport, CT, 1973

Professional Experience:

1994-1999	President/CEO, Chairman, Semiconductor Advanced Lithography, Inc, Burlington, VT
1980-1997	President/General Manager, Karl Suss America, Inc, Waterbury Ctr., VT
1977-1980	Director of Operations, Coulter Research Corporations, Inc, Waltham, MA
1966-1977	Product Manager, Project Manager, R&D Engineer, Perkin-Elmer, Norwalk, CT, and Ueberlingen, Germany

Professional Affiliations and Activities:

Member, Vermont Academy of Science & Engineering, 1999
Board Member, Vermont Business Roundtable, 1991-1997
Member, Vermont Business Roundtable, 1989-1999
Member, Organizing Committee, Trade Partner Conference, Semiconductor Equipment and Materials International, Santa Clara, CA, 1994-2000

Publications:

Author and co-author of papers, articles, publications in semiconductor and biomedical equipment journals
Editor of company-sponsored magazines and in-house publications

Patents:

Co-inventor of 4 patents in biomedical blood analyzing equipment

DR. EDITH D. HENDLEY (2002)

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Website: http://physioweb.med.uvm.edu

Education:

A.B. Physiology	Hunter College of New York, 1948
M.S. Physiology	Ohio State University, 1950
Ph.D. Physiology	Univ. of Illinois College of Medicine, 1954
Postdoctoral Physiology	Univ. of Chicago, 1954-1956

Professional Experience:

Professor, Dept. Molecular Physiology & Biophysics, Univ. of Vermont College of Medicine, July 1983-present. Secondary appointment, Dept. of Psychiatry, 1976-1994. Professor Emerita, 1994 (active status, 1995-present)
Associate Professor, Dept. of Molecular Physiology & Biophysics, Univ. of Vermont College of Medicine, 1973-1983
Senior Investigator in Environmental Neurobiology, Friends Medical Science Research Center, Inc., Baltimore, MD, 1972-1973
Research Associate, Dept. of Pharmacology and Experimental Therapeutics, Johns Hopkins University School of Medicine, Baltimore, MD, 1966-1972
Instructor, Dept. of Ophthalmology, John Hopkins Univ. School of Medicine, 1963-1966
Assistant Lecturer, Dept. of Physiology, Sheffield Univ., England, 1956-1957
Research Associate (Instructor), Dept. of Physiology, University of Chicago, IL, 1954-1956

Honors and Awards:

Phi Beta Kappa, Hunter College, 1947
Graduate Fellowship, Ohio State Univ., 1948-1949
Biographee: American Men and Women of Science, The World Who's Who of Women, Who's Who of American Women, Who's Who in Frontier Science and Technology, Who's Who in the East, Foremost Women of the Twentieth Century, International Who's Who in Medicine, Who's Who in Society, Who's Who in Science and Engineering, Who's Who in America, Who's Who in the East, Who's Who in Medicine and Healthcare.
National election to Treasurer, Association for Women in Science; member of Executive Council; Chair of Membership Committee.
Establishment of the Edith Hendley Award for Service to Women in Science, Lake Chaplain Chapter of the Association for Women in Science, 1993. First awardee.
Awardee of the 1994 Sister Elizabeth Candon Award for Distinguished Service, from Vermont Women in Higher Education.

Establishment of the Annual Edith D. Hendley Award to Graduate Students, University of Vermont, 1996.
Charter member, Hall A Scholars, UVM College of Medicine, 1997.
University Scholar Award, UVM, 1999.
Member, Vermont Academy of Science and Engineering, 2002.

Publications:

Author or co-author of 74 publications in scientific journals or textbooks.

DR. MAHLON HOAGLAND (1996)

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Education:
Williams College, 1940-1941
B.S. Harvard College, 1941-1943
M.D. Harvard Medical School, 1943-1948

Professional Experience:

President Emeritus, Worcester Foundation for Biomedical Research, 1985-present
President and Scientific Director, Worcester Foundation for Biomedical Research, 1970-1985
Professor and Chairman, Dept. of Biochemistry, Dartmouth Medical School, 1967-1970
Research Fellow in Medicine to Associate Professor of Bacteriology and Immunology, Harvard Medical School, 1948-1967

Professional Affiliations and Activities:

Scholar in Cancer Research, American Cancer Society, 1953-1958
Fellow, American Academy of Arts and Science, 1958
Trustee and Member of the Corporation, Woods Hole Oceanographic Institution, 1974-1978
Member, National Academy of Sciences, 1984
Visiting Professor of Biochemistry, Dartmouth Medical School, 1994

Honors and Awards:

Franklin Medal, Franklin Institute, 1976
American Medical Writers Book Awards, 1982 and 1996
Honorary Doctor of Science, Worcester Polytechnic Institute, 1973
Honorary Doctor of Science, University of Massachusetts, 1984

Publications:

62 scientific papers; 5 books for the public on molecular biology

DR. JOHN R. HUGHES (2000)

Name: John R. Hughes

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F: (802) 656-9628

Email: John.Hughes@uvm.edu

Education:

	Mississippi State University, 1967-1969
B.S. Chemistry	Millsaps College, 1969-1971
M.D.	University of Mississippi Medical School, 1971-1975
Resident, Psychiatry	University of Mississippi Medical Center, 1976-1978
Resident, Psychiatry	University of Pittsburgh, 1978-1979
Post Doctoral	University of Minnesota, 1979-1981

Professional Experience:

1991-present	Professor of Psychiatry, Psychology and Family Practice, University of Vermont, Burlington, VT
1996	Visiting Professor, Pharmacia & Upjohn, Helsingborg, Sweden
1985-1991	Associate Professor, Departments of Psychiatry, Psychology and Family Practice
1981-1985	Assistant Professor, Department of Psychiatry & Division of Epidemiology

Professional Affiliations and Activities:

Addiction Psychiatry, American Board of Psychiatry and Neurology, 1993
General Psychiatry, American Board of Psychiatry and Neurology, 1981
Medical License, Vermont, 1985
Fellow, American Psychiatric Association
Fellow, Academy of Behavioral Medicine Research
Fellow, American Psychological Association: Division 28 (Psychopharmacology), Division 25 (Experimental Analysis of Behavior), and Division 38 (Health Psychology), 1992-1995
Fellow, College of Problems of Drug Dependence
American Association for the Advancement of Science
Society for Research on Nicotine and Tobacco
Member, Vermont Academy of Science & Engineering, 2000
National Advisory Council, Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 1999-2001
Member, Scientific Advisory Board, Alcohol and Other Drug Abuse Programs, VT Dept. of Health, 1999-present

Many consultancies, advisorships, advisory committees, chairmanships, director- and co-directorships,

Honors and Awards:

Best Doctors in America, 1998
Teacher of the Year, Department of Psychiatry, University of Vermont, 1987-1988
University Scholar, University of Vermont, 1994
Listed in various Who's Who Directories
Cited in New York Times, Wall Street Journal, USA Today, LA Times, JAMA, Psychology Today, NBC, CBS, etc.

Publications:

Author or co-author of more than 250 published journal articles on nicotine and other drug dependencies; has also presented many lectures at national meetings and served on many editorial and consulting boards for scientific journals.

Research Interests:

Clinical research on tobacco use

DR. EMMETT HUGHLETT (2006)

Name: Emmett Hughlett

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Email: emmett.hughlett@suss.com

Education:

B.A.	Physics, Cum Laude, Shippensburg University, May 1979.
M.S.	Measurement and Control, Carnegie-Mellon University, May 1981 Electrical Engineering, University of Vermont, March 1989.
Ph.D.	Electrical Engineering, University of Vermont, March 1991. Dissertation: "Application of Video Summed Projection to Mask Alignment"

Professional Experience:

2004.9 – Present	Suss MicroTec, Inc., Waterbury Center, VT VP Business Unit Manager, Suss MicroTec, Inc
1999.10 – 2004.9	Director of Field Service and Applications Engineering
1998.7 – 1999.10	Myxa Corporation, Philadelphia, PA Director of Development: Unix/Linux network applications
1996.3 – 1998.7	Kulicke & Soffa Industries, Inc., Philadelphia, PA Program Manager Factory Automation, Director of Software Engineering
1983 – 1986	Karl Suss America, Inc., Waterbury Center, VT Manager Product Development, Software Engineering Manager, Principal Engineer

Items of Interest:

Patents –

"US 5,239,170 Automatic focus system for microscopy", sole contributor: 1993.

"US 4,755,990 Anti-collision protocol for a drop-node serial communications bus", contributor: 1986.

Publications:

Numerous publications and presentations on advanced semiconductor packaging. Websearch "Emmett Hughlett Advanced Packaging C4NP".

"Incremental Automation in the Compound Semiconductor Fab", Compound Semiconductor Magazine, August 2001 – Cover Story - author

"An Automatic Focus System for Microscopy", IEEE ICASSP Conf. Proc., March, 1992 - author

"A Video Based Alignment System for X-Ray Lithography", SPIE Proc., Int'l. Conf. Lithography, March 1991 - author

DR. DAVID JAPIKSE (1999)

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Website: www.conceptsnrec.com

Education:

B.Sc. Eng.	Case Institute of Technology, 1965
M.Sc. Eng.	Purdue University, 1967
Ph.D. Eng.	Purdue University, 1968
Post Doctoral	Technische Hochschule, Aachen, 1969

Professional Experience:

12/80-present	Corporate President/CEO, Concepts ETI, Inc., White River Jct., VT
1973-1980	President, Fluid Machinery Division, Creare, Inc., Hanover, NH
1970-1973	Assistant Project Engineer, Pratt & Whitney Aircraft, East Hartford, CT

Professional Affiliations and Activities:

Member; National Academy of Engineering, 1998
Member; Vermont Academy of Science & Engineering, 1999
President; Vermont Academy of Science & Engineering, 2001-2005
Fellow; American Society of Mechanical Engineers, 1971
Senior Member; American Institute of Aeronautics & Astronautics, 1982
Member; Society of Automotive Engineers
Member; Tau Beta Pi, Pi Tau Sigma, Society of the Sigma Xi

Honors and Awards:

Kent H. Smith Award, Outstanding Member of the Class of 1965,
Case Institute of Technology
NDEA Title IV Fellow, Purdue, 1965-1968
Fulbright Scholar, 1969
National Science Foundation Post Doctoral Fellow, 1969
Recipient of ASME Potter Gold Medal in Thermodynamics, 1992.
Recipient of Outstanding Mechanical Engineer Award; Purdue University, 1997
Recipient of Best JANNAF Modeling and Simulation Paper, 2000
ISROMAC Award for Outstanding Research Contributions in Fluid Dynamics
of Rotating Machinery, 2002
Distinguished Engineering Alumnus, Purdue University Schools of Engineering, 2002

Publications:

Author, co-author, or editor of 10 books on turbomachinery, 37 reviewed papers, 33 conference papers, 177 major engineering project reports, and 60 invited keynote addresses, special lectures, or special courses.

Patents:

5 patents covering turbine cooling, compressor stability, and diffuser performance

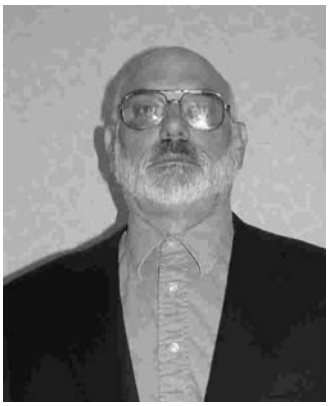
Research Interests:

Advanced performance of pumps and compressors

Teaching Interests:

Compressor, pump and turbine performance
Professor of Mechanical Engineering, University of Vermont (Adjunct)

DR. HOWARD KALTER (1997)



Name: Howard L. Kalter

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Colchester, VT 05446

Telephone: H: (802) 879-0941
F: (802) 878-5372

Email: hkalter@ieee.org

Education:	BSEE with Honors	University of Florida, Dec 1966
	MSEE	University of Florida, Mar 1968
	Degree of Engineer	University of Florida, Jun 1970
	Masters Thesis	Analysis of High-Powered Pulsed X-Radiation From a Non-Equilibrium Plasma
	Doctorial Dissertation	A System for High-Accuracy Noise Measurements

Professional Experience:

1/99-present HLK, Inc., Colchester, Vermont
Technical consulting on semiconductor design and expert witness on patent infringement litigations.

4/70-12/98 IBM, Essex Junction, Vermont
Hired into IBM April 1970 and have had various assignments in memory chip design on both static and dynamic memory, logic, automated logic wiring, alterable logic, and alterable memory devices. Initially did the original work on one device DRAM memory chips for 1K, 2K, and the 8K, which was presented in 1973 at the ISSCC. Other activities, over the years, included work on automated wiring, simulation and checking programs for both logic and memory card design; silicon rich oxide and silicon rich nitride alterable devices used as both memory or logic; and design efforts and consultation on 1M, 4M, 16M, 256M, 1G, 4G and 16G DRAM cells, test sites and product designs. Over the last several years have lead the work on an ASIC library embedded DRAM macro and the concept of precision align macros for enhanced productivity. Awarded the distinction of IBM Fellow in IBM June 1990.

1/66-4/70 University of Florida, Gainesville, Florida
Teaching Assistant under Professor Nelson Rosier and Dr. Gene Chenette on pulse and digital circuit design and noise studies.

1964-4/66 Martin Marietta, Orlando Florida
Co-op student under Richard A. Branham on frequency time multiplexed troposcatter digital communication systems.

Professional Affiliations and Activities:

IBM Academy of Technology, 1990-1998
ISSCC Technical Committee, 1992-1994
Symposium on VLSI Circuits , 1995-1998
Guest Editor of JSSC, November 1993
Evening Panel participant and evening panel organizer many times at the ISSCC and the Symposium on VLSI Circuits
Vermont Academy of Science and Engineering, 1997-present

Honors and Awards:

IEEE Fellow January 1997 for Contributions to the Development of DRAM
P.K. McElroy Award for the best paper at the 1991 Reliability and Maintainability Symposium
JSSC 1989-90 Best Paper Award from the Solid State Circuits Council
IBM Corporate Award Nov 1987, Product Design and Development of a Silicon Gate 1 Megabit Random Access Memory
IBM Corporate Award June 1983, 144K C/P ROS Design and Leadership
IBM Corporate Award June 1978, Advances in the Art of Stored Charge Sensing

Publications:

Author or co-author of many conference papers and special tutorials, 22 publications in reviewed technical journals, 52 publications in the IBM technical disclosure bulletin.

Patents:

61 US Patents issued on semiconductor processes, circuits and systems

MR. EDWIN E. KINTNER (1997)

Name: Edwin E. Kintner

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Norwich, VT 05055

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F: (802) 649-3543

Education:	B.S.E.E.	U.S. Naval Academy, 1942
	M.S. Naval Architecture and Marine Engineering	M.I.T., 1946
	M.S. Nuclear Physics	M.I.T., 1950

Professional Experience:

Development of nuclear ships (14 years)
- U.S. Naval Reactors Program
  - Project Officer, USS Nautilus, first nuclear ship
  - Head, Advanced Design Group, responsible for preliminary design of reactor plants in first generation of nuclear ships
  - First Nuclear Power Superintendent, Mare Island Naval Shipyard
  - Chief, Reactor Procurement Branch
  - Senior Naval Representative, Bettis Atomic Power Laboratory
- U.S. Atomic Energy Commission
  - Chief, Reactor Procurement Branch
  - Assistant Director for Reactor Engineering
- U.S. Department of Energy
  - Deputy Director and Director, Division of Magnetic Fusion Energy
- General Public Utilities Nuclear Corporation
  - Vice President for Administration
  - Executive Vice President, responsible corporate official for cleanup of Three Mile Island II (9 years)

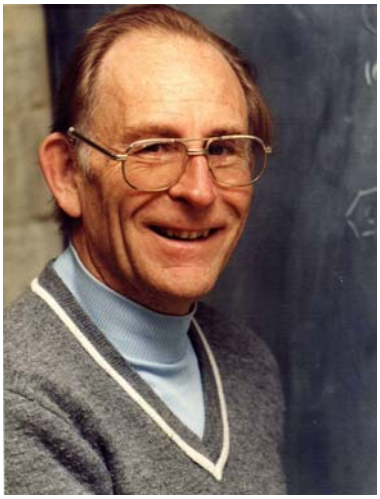
Professional Affiliations and Activities:

Chairman, Technical Advisory Group, West Valley Nuclear Waste Vitrification Project
Chairman, Electric Power Research Institute Advanced Light Water Reactors Project to re-conceptualize utility power reactors
U.S. representative to the International Fusion Research Council
Chairman, National Research Council Committee on Environmental Technology
Member, Board of Directors, British Nuclear Fuels, Inc.

Honors and Awards:

Member, National Academy of Engineering, 1990
Distinguished Alumnus, M.I.T.
Secretary of the Navy Commendation Medal, 1959
Highest Award, U.S. Senior Executive Service

DR. MARTIN E. KUEHNE (1997)



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H: (802) 862-7303
F: (802) 656-8705

Email: mkuehne@zoo.uvm.edu

Education:

B.A. Chemistry	Columbia College, 1952
M.A. Chemistry	Harvard University, 1953
Ph.D. Chemistry	Columbia University, 1956

Professional Experience:

1961-present	Asst. Professor, Associate Professor, Professor, Acting Chairman, Professor Emeritus, Department of Chemistry, University of Vermont
1970	Visiting Scientist, University of Munich, Germany
1973	Visiting Scientist, ETH, Zurich, Switzerland
1955-1961	Sr. Chemist, CIBA Pharmaceutical Co., Summit, NJ

Professional Affiliations and Activities:

Member, NIH Study Sections, Medicinal Chemistry, 1972-1984
Member, Vermont Regional Cancer Center
UVM Graduate College Executive Council, 1977-1981; 1984-1988
UVM Graduate College Patent Advisory, 21 years
University Physical Scientist Advisory Committee (RAC), 1985-1988 (chair 1987-1988)
University Search Committees, 1979-1990

Honors and Awards:

Quincy Ward Boese Fellow, 1954-1955
Alfred P. Sloan Fellow, 1965-1969

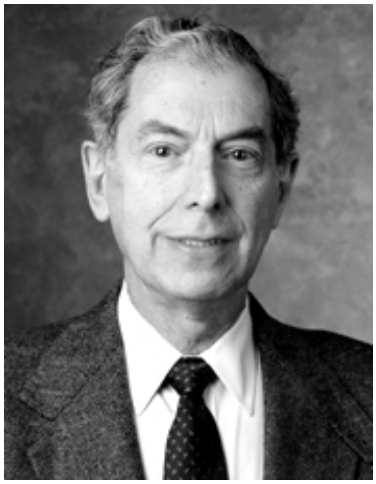
Publications:

Author or co-author of 100 publications; invited lecturer to over 100 companies and universities world-wide

Research Interests:

Synthetic organic chemistry and natural products, especially alkaloids; anti-cancer and anti-addiction compounds

MR. MATTHYS LEVY (2004)



Name: Matthys Levy

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Apt 702

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M: (802) 238-8675

F: (212) 497-2550

Email: levy@wai.com

Education:	BSCE	City College of New York, 1951
	MSCE	Columbia University, 1956
	CE, Applied Mechanics	Columbia University, 1962

Professional Experience:

2006	Chairman Emeritus, Weidlinger Associates, New York
2002-2005	Chairman, Weidlinger Associates
1964-2002	Principal, Weidlinger Associates
1956-1964	Engineer, Weidlinger Associates
1952-1954	Asst. Operations Officer, 453rd Eng Const. Bn., US Army, Korea
1951-1952	Engineer, Sargent & Lundy, Chicago

Professional Affiliations and Activities:

Member; National Academy of Engineering, 1996
Member; Vermont Academy of Science & Engineering, 2004;
Fellow, American Society of Civil Engineers,
Fellow; Institution of Civil Engineers,
Honorary Member; American Institute of Architects
Member, Executive Council; International Association for Shell and Spatial Structures
Member; American Association of Bridge and Structural Engineers

Honors and Awards:

IASS Tsuboi Award for paper, "The Innovation of Lightness", 1995
ASCE, Innovation in Civil Engineering Award, 1994
Medal of Excellence, *Engineering News Record,* 1992, 2000
Lincoln Arc Welding Award, 1961, 1981, 1992
Prestressed Concrete Institute Award, 1963, 1971, 1992
AIA Institute Award, 1985; NY Chapter, AIA Award of Merit, 1976
Founder's Award, Salvadori Center, 2003
Named as "Structural Engineering Legend in Design", *Structural Engineering Magazine*, 2003
Grand Conceptor Award for World Trade Center Study, ACEC, 2004

Publications:

Co-author of: Structural Design in Architecture, Why Buildings Fall Down, Why the Earth Quakes, Earthquake Games and Engineering the City
Author of over 100 papers on structures, computer analysis and building design. Chapters in books on building geometry and humanities in engineering.

Illustrator of: Your Child's Sensory World and Architecture and Engineering: An Illustrated Teachers Manual

Patents:

3 patents covering triangulated cable dome structures

Teaching/Lecturing

Adjunct Professor, School of Architecture, Columbia University, NY, (1962-1980)
Visiting Critic in Architecture, Yale University, New Haven, (1060-1980)
Distinguished Professor, Pratt Institute, Brooklyn, 1980-1981)
Lecturer, U of Idaho, Rutgers U, Princeton U, Harvard U, Catholic U, U of Florida, U of Minnesota, U of Rochester, LaPlata U.

Registration:
Professional Engineer, various States
Chartered Engineer, UK
European Engineer

Expert Testimony & Forensics

Prepared investigation reports and served as an expert witness on a number of legal cases

DR. WOLFGANG K. LIEBMANN (1996)

Name: Wolfgang K. Liebmann

Address: Summer: 125 Bixby Hill Road
Essex Junction, VT 05452
Winter: 4904 North Sacramento Ave.
Beverly Hills, FL 34465

Telephone: Summer: 802-878-1062
Winter: 352-527-2633

Email: wliebmann@peoplepc.com

Education:

Ph.D. Eng	Technical University, Berlin, Germany
Post Doctorate Research	University of Pennsylvania

Professional Experience:

Current Positions:
- Chairman and CEO, Twin Oaks Sports and Fitness, Inc (Fitness Clubs, Physical Therapy Centers)
- Vice President, Corporate Development, Bio-Tek Instruments, Winooski, VT

Academic:
- 1987-1990: University of Vermont:
  - Visiting Professor, Electrical Engineering
  - Director of Technology Transfer
- 1958-1960: University of Pennsylvania
  - Lecturer: Solid State Physics

Industrial:
- 1963-1987: IBM Corporation:
  - Assistant Group Executive, IBM Technology Group, Responsible for IBM Worldwide Electronic Development and Manufacturing, White Plains, NY
  - Vice President, General Technology Division, and General Manager, IBM Essex Junction Facility, VT
- Laboratory Director, IBM Development Laboratories, Boeblingen, Germany
- Manager, Semiconductor Technologies, IBM Laboratories, Essex Junction, Vermont
- Manager, Semiconductor Storage Development, IBM Research Division, Yorktown Heights, NY
- 1960-1963: Member of the Technical Staff, David Sarnoff Research Center, Princeton, NY

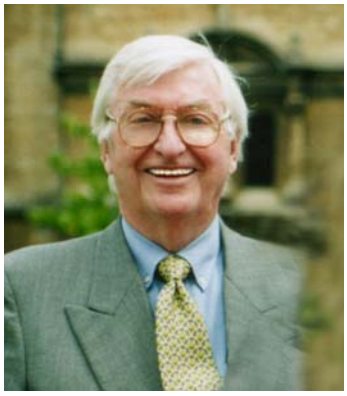
Professional Affiliations and Activities:

Current Positions:
- Board of Advisors, Vermont Venture Capital Fund
- Founding Member: Vermont Academy of Science and Engineering

Former Positions:
- Board of Trustees, Vermont Health Foundation
- Founding Member, Vermont Technology Council
- Chairman, Vermont Governor's Advisory Council on Technology
- Trustee, Medical Center Hospital of Vermont
- Director, Lake Champlain Regional Chamber of Commerce.
- Commissioner, Vermont Higher Education Planning Commission

Honors and Awards: Fulbright Scholar, 1958

DR. JEROLD F. LUCEY (2004)



Name: **Jerold F. Lucey, MD**

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Pediatrics Editorial Office
89 Beaumont Avenue, Given D201
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802-656.2505 – Office;
802-862.7272 – Home

E-mail: Jerold.Lucey@uvm.edu

Education:

Dartmouth College - Zoology Major, AB 1948 Second Honors Group
New York University College of Medicine, MD 1952
Bellevue Hospital, NYC Children's Medical Service Intern under Dr. LE Holt, Jr., 1952-53
Columbia-Presbyterian Medical Center, 1953-55
Babies Hospital, Assistant Resident and Senior Resident under Dr. R. McIntosh
Harvard Medical School & Children's Medical Center; Research Fellow in Pediatrics under Dr. CA Smith, 1955-56.
Harvard Medical School, Research Fellow in Biological Chemistry under Dr. C. Villee, 1960-61.

Professional Experience:

Professor of Pediatrics and University Scholar; University of Vermont College of Medicine
Harry Wallace Professor of Neonatology - Life
Chief of Newborn Services, Fletcher Allen Health Care, Burlington, Vermont, 1970-1990
Editor-in-Chief, ***Pediatrics***, 1974 - present
President, Vermont Oxford Network- 1987- present

Teaching Experience:

University Of Vermont College Of Medicine, Burlington, Vermont

Instructor in Pediatrics, 1956-57
Assistant Professor in Pediatrics, 1957-60
Associate Professor of Pediatrics, 1961-66
Professor of Pediatrics, 1967 - present
University Scholar, 1989 - present
Harry Wallace Professorship of Neonatology, Endowed Chair, 1995-Lifetime

Scholarships And Honors

John and Mary R. Markle Scholar in Medical Science, 1959-64
Humboldt Senior American Scientist Prize, Bonn, Germany, 1977
Litchfield Lecturer - University of Oxford, England, 1978
American Academy of Pediatrics Grulee Award, 1981
United Cerebral Palsy Research Award, 1984
Phototherapy Unit - Requested for History of Medicine Display in Smithsonian Museum of American History, Washington, DC, 1985
Ronald McDonald Charities Research Award, 1990 - $100,000
Honorary President, Second World Congress of Pediatrics, Rome, Italy, Sept. 1993
Apgar Award, American Academy of Pediatrics, November 1993
Neonatal Education Award, Perinatal Section, American Academy of Pediatrics, 1997
AAP Lifetime Achievement Award, 1997.

National Academy of Sciences, Senior Membership, Institute of Medicine, 2000
Honorary Member, Finnish Pediatric Society. 2002
Distinguished Service Award (highest award) Vermont Medical Society. 2004
Honorary Member Royal Society of Pediatrics and Child Health. 2006

Administrative Experience:

Editor-in-Chief, *PEDIATRICS*, 1974-present
President - Neonatal Research & Technology Assessment, Inc., 1988-present Vermont-Oxford Neonatal Network. 1988-present.
Chairman - Hot Topics in Neonatology, Ross Conference, 1980-present

Publications:

Author and/or co-author of 169 papers, 7 books, 11 textbook chapters, and 4 films or videos.

Research Interests:

Quality improvement
International Health
Neonatology

Teaching Interests:

Internet – Long Distance Learning

DR. PATRICIA L. MANLEY (2005)

Name: Patricia Lee Manley

Address: Department of Geology
427 McCardell Bicentennial Hall
Middlebury, VT 05753

Telephone: 802-443-5430

Email: manley@middlebury.edu

Education:

B.S.	Geology Kent State University, 1970.
M.S.	Columbia University, 1987
Ph.D.	Marine Geology & Geophysics Columbia University, 1989

Professional Experience:

2006 – pres. Associate Dean of Undergraduate Research, Middlebury College, Middlebury, VT
2004 – pres, Professor, Middlebury College, Middlebury, VT
2004 - 2007 CUR Geoscience counselor (three year term)
2003 Co-editor for "*Lake Champlain-Partnerships and research in the new millennium*", Kluwer Publishing.
1995- 2005, Chair, Geology Department, Middlebury College, Middlebury, VT.
1998 Co-editor for "*Lake Champlain-research and progress toward management*", AGU Waters Monograph
1995 – 2004, Associate Professor, Middlebury College, Middlebury, VT.
1993 Guest editor for Deep-sea Research, vol. 40. "Project MUDWAVES"
1989 – 1995, Assistant Professor, Middlebury College, Middlebury, VT.

Professional Affiliations and Activities:

American Geophysical Union (1984-present)
Geological Society of America (1988-present)
Sigma Xi (1989-present)
Association for Women Geoscientists (1993-present)
Lake Champlain Research Consortium (1990-present)
Vermont Academy of Science & Engineering (President-elect)

Honors and Awards:

Association of Women Geoscientist Outstanding Educator of 2004
Middlebury College Faculty Women of the Year 1998
Nominated for Perkins Teaching Award, 2001
Honors College, Kent State University (1970-1974)
Columbia University Faculty Fellowship (1984-1989)
Sigma Xi (1989-present)

Publications:
Author or co-author of more than 30 referred papers, co-editor of 2 books, 70 abstracts, 7 technical reports in Paleoceanography, Marine Geology, Deep-sea Research, I have participated in over 40 research cruises to the North/South Atlantic, Antarctica, and Lake Champlain.

DR. KENNETH G. MANN (1996)

Name: Kenneth G. Mann

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Grand Isle, VT 05458

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Email: kmann@zoo.uvm.edu

Education:

B.S., Chemistry	Manhattan College, 1963
Ph.D. Biochemistry	University of Iowa, 1967
Postdoctoral	University of Iowa, 1967-1968
Postdoctoral	Duke University, 1968-1970

Professional Experience:

Professor and Chairman of Biochemistry, University of Vermont, 1984-present
Professor of Biochemistry, University of Minnesota, 1980-1984
Professor of Biochemistry, Mayo Medical School, 1978-1984
Vice-Chairman, Department of Internal Medicine, Mayo Clinic, 1977-1984
Consultant in Hematology Research, Mayo Clinic and Mayo Foundation, 1972-1984
Associate Professor, Dept. of Biochemistry, University of Minnesota, St. Paul, 1975-1978
Associate Professor of Biochemistry, Mayo Medical School, 1974-1978
Assistant Professor of Biochemistry, Mayo Medical School, 1972-1974
Assistant Professor, Dept. of Biochemistry, University of Minnesota, St. Paul, 1970-1975

Professional Affiliations and Activities:

American Heart Association
American Society of Hematology
International Society on Thrombosis and Hemostasis
American Chemical Society
American Society of Biochemistry & Molecular Biology
American Society of Bone and Mineral Research
Federation of American Societies for Experimental Biology
National Hemophilia Foundation
American Society of Biochemistry and Molecular Biology
Association of Medical and Graduate Departments of Biochemistry
Sigma XI
The Protein Society

Honors and Awards:

Plenary Lecture, European Hematology Association, 2004
Distinguished Alumnus Award, Mayo Foundation, 2004
Mossesson Lecture, Blood Research Institute, 2004
State of the Art Lecture XIX, International Society on Thrombosis and Hemostasis, Birmingham, England, 2003
Carl S. Vestling Lecture, University of Iowa, 2003
E. Donnall Thomas Lecture and Prize, American Society of Hematology, 2002
George Adrouny Memorial Lecture, Tulane University, 2000
Citation for Distinguished Service ASBMB, 2000
Walter H. Seegers Memorial Lecture, Wayne State University, 2001
1st Stuart Stone Lecture, FASEB Research Conference, 1999
Exemplary Service Award - American Society of Hematology, 1999

The Novo Nordisk Haemostasis Award, 1999
State of the Art Lecture XVIIth International Society on Thrombosis and Hemostasis, Washington D.C. 1999
Robert P. Grant Medal, International Society on Thrombosis and Hemostasis, 1997
Plenary Lecture, XXII International Congress of the World Federation of Hemophilia, 1996
Henry Stratton Medal, American Society of Hematology, 1992
Sol Sherry Award, American Heart Association, 1992
Distinguished Lecturer in Medical Science, Mayo Foundation, 1989
Merit Award, National Institutes of Health, 1989
University of Vermont Scholar Award, 1988
Distinguished Career Award for Contribution to Hemostasis, 1987
Presidential Symposium, American Society of Hematology, 1987
State of Art Lecture, XIth International Society of Thrombosis and Hemostasis, Brussels, Belgium, 1987
Nossel Lecture, Columbia University, 1986
Ellwood P. Sharp Lecture, Wayne State University, 1985
Byrd Leavell Lecture, University of Virginia, 1982
Established Investigator, American Heart Association, 1974-1979
Camille and Henry Dreyfus Teacher Scholar Grant, 1971-1976
NIH Postdoctoral Fellowship, Duke University, 1968-1970
NIH Predoctoral Fellowship, Iowa, 1967
NASA Traineeship, Iowa, 1965-1966
Alpha Chi Sigma Scholarship Award, Iowa, 1964
Chemistry Medal, Manhattan College, 1963

Publications:

Over 425 original research publications and book chapters

Patents:

11 patents

Research Interests:

Proteins of the blood coagulation process; Proteins in Bone

Teaching Interests:

Biochemistry

DR. DWIGHT E. MATTHEWS (2007)

Name: Dwight E. Matthews

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Cook Physical Sciences Building
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Email: Dwight.Matthews@uvm.edu

Education:
B.A. Chemistry, DePauw University, Greencastle, Indiana, 1973
Ph.D. Chemistry, Indiana University, Bloomington, Indiana, 1977

Professional Experience:

1977 - 1980: Research Instructor of Medicine, Washington University School of Medicine, St. Louis, MO
1980 - 1986: Research Assistant Professor of Medicine, Washington University School of Medicine, St. Louis, MO
1986 - 1996: Associate Professor of Biochemistry in Medicine, Cornell University Medical College, New York, NY
1987 - 1996: Associate Professor of Biochemistry in Surgery, Cornell University Medical College, New York, NY
1996 - Professor of Medicine, College of Medicine, UVM, Burlington, VT
1996 - Professor of Chemistry, College of Arts and Sciences, UVM, Burlington, VT
2002 - Chairman, Department of Chemistry, College of Arts and Sciences, UVM, Burlington, VT

Professional Affiliations and Activities:

American Chemical Society (ACS)
American Physiological Society (APS)
American Society for Biochemistry & Molecular Biology (ASBMB)
American Society for Mass Spectrometry (ASMS)
American Society for Nutrition (ASN)
American Society for Parenteral and Enteral Nutrition (ASPEN)

Honors and Awards:

University Scholar, University of Vermont, 2004

Publications:
Author or co-author of more than 150 peer-reviewed papers and 50 chapters in books.
See: http://www.uvm.edu/~dmatthew/dem_info/?Page=dem_cv1.html&MM=info_menu.html

Research Interests:

Development of mass spectrometry for measurement of stable isotopes
Proteomics techniques by mass spectrometry
Metabolism of amino acids and proteins in humans using stable isotopically labeled tracers

DR. DAVID MAUGHAN (2004)

Name: David W. Maughan

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Burlington VT 05401

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Email: david.maughan@uvm.edu

Education:

B.A.	Physics Washington State University, 1964
Ph.D.	Physiology and Biophysics, U. Washington, Seattle, 1971
Post Doctoral	U. Bern, Switzerland, 1971-74

Professional Experience:

1990-present Research Professor, Molecular Physiology and Biophysics, University of Vermont
1984-1990 Research Associate Professor, Molecular Physiology and Biophysics, University of Vermont
1977-1984 Research Assistant Professor, Molecular Physiology and Biophysics, University of Vermont

Industrial appointment:
MyoSite Diagnostics, Inc., Co-founder, Director and Scientific Officer

Professional Affiliations and Activities:

Biophysical Society
American Association for the Advancement of Science
American Heart Association
Society of General Physiologists
International Society for Heart Research

Honors and Awards:

Phi Eta Sigma, Washington State U, 1964.
Washington State Heart Association Fellow, U. Bern, Switzerland, 1971-72
NIH Postdoctoral Fellowship, U. Bern, 1972-74
Established Investigator of the American Heart Association, 1979-84
Fogarty International Fellowship: U. York, Swiss Institute of Technology, 1991-92
Chair, Contractility Subgroup of the Biophysical Society, 1989
Organizer, 5th International Conference on Muscle Energetics, Burlington VT, July 2001

Publications:
Author or co-author of more than 70 reviewed papers in Nature, Nature Cell Biology, Proceedings of the National Academy of Sciences, Journal of Physiology, Biophysical Journal, Journal of Membrane Biology, Circulation, Circulation Research, American Journal of Physiology, Journal of Cellular and Molecular Proteomics, Journal of Biological Chemistry, and other journals.

Major Research interest is in cellular and molecular physiology of striated muscle; functional genomics and proteomics. **MyoSite Diagnostics** was established in Vermont in 1999. Its mission is to provide muscle-related diagnostic, drug screening, and research services to the medical, pharmaceutical, and academic communities.

DR. BROOKE T. MOSSMAN (2000)

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H: (802) 425-3090
F: (802) 656-8892

Email: Brooke.Mossman@uvm.edu

Website: www.uvm.edu/~mossman/

Education:

M.S. Physiology & Biophysics	University of Vermont, 1970
Ph.D. Cell Biology	University of Vermont, 1977

Professional Experience:

1995-present	Director, Environmental Pathology Program, University of Vermont
1995-1998	Program Leader, Cell Signaling and Growth Control Research Program, Vermont Cancer Center
1992-present	Professor, Department of Pathology, University of Vermont
1989-present	Adjunct Faculty Member, *In Vitro* Cell Biology and Biotechnology Program, State University of New York, Plattsburgh, NY
1984-1992	Associate Professor, Department of Pathology, University of Vermont
1984-1988	Chair, Cell and Molecular Biology Program, University of Vermont
1980-1983	Assistant Professor, Department of Pathology, University of Vermont
1978-1980	Research Assistant Professor, Department of Pathology, University of Vermont
1975-1977	Research Associate, Department of Pathology, University of Vermont
1973-1974	Research Assistant, Department of Pathology, University of Vermont
1970-1973	Research Assistant, Institute of Environmental Medicine, New York University, Sterling Forest, NY
1968-1970	Research Assistant, Department of Obstetrics & Gynecology, University of Vermont
1968-1970	Graduate Student, Physiology and Biophysics, University of Vermont

Professional Affiliations and Activities:

Member, National Academy of Sciences Committee, "Non-Occupational Health Risks of Asbestiform Fibers", 1982-1983

Scientific Program Chairman, 4th NATO NIH Workshop on Effects of Mineral Dusts In Vitro, Sherbrooke, Quebec, CN, Sept. 20-23, 1988

Co-Chair, Workshop on "Health Effects of Mineral Dusts," Mineralogical Society of America, Nantucket, MA, October 22-24, 1993

Member, Human Exposure and Health Effects Review Panel, U.S. Environmental Protection Agency, 1989-1993

Member, NIOSH Board of Scientific Counselors, Fiber Subcommittee, 1989-1993

Representative of the American Association of Pathology (A.A.P.) to the FASEB Life Sciences Research Office Advisory Committee, 1991-1994; American Association of Cancer Research, Program Committee, 1995

Scientific Advisory Committee (Personnel for Research), American Cancer Society, 1990-1994

Pulmonary Diseases Advisory Committee, National Heart, Lung and Blood Institute, 1990-1994, (Chair 1993-1994)
Chair, NHLBI workshop on "Genetics and Gene Therapy for the Study of Pulmonary Diseases," September 23-24, 1994
Elected Member, Pluto Society, University Professors of Pathology, 1994-present
Member, U.S. Environmental Protection Agency, Science Advisory Board, Environmental Health Committee, 1986-1996
American Thoracic Society, Planning Committee, 1994-1997; Program Committee, Environmental and Occupational Health, 1992-1996
Council Member, The Oxygen Society, 1995-1999; Program Chair, Oxygen 1998; Washington, DC, Nov. 19-23, 1998.
Lung Biology and Pathology Study Section, NIH, July 1995-1999
American Society Investigative Pathology, Program Committee, 1997-1999; 2004-2006
Elected Member, Vermont Academy of Science and Engineering, 2000
External Advisory Committees: NIEHS Centers at Oregon State University (1996-) (Chair, 2003) and Vanderbilt University (2002-); EPA PM Center at NYU (2002-); CIIT Center for Health Research Scientific Advisory Board (1995-); Chair (2002-2003); Center for Asbestos-Related Diseases (Libby, MT), 2003-
NHLBI Parent Program Project Review Committee, 2002-2006
Board of Scientific Counselors (Subcommittee on Basic Research), National Cancer Institute, 2000-2005
Board of Scientific and Policy Advisors, American Council of Science and Health, 2003
Editorial Boards: Toxicol Appl Pharmacol (1993-present); Free Rad Biol Med (1993-present); Lab Invest (1996-present); Am J Physiol (Lung Cell Mol Physiol) (1996-present); Am J Respir Cell Mol Biol (1998-present); Am J Pathol (2004-)

Honors and Awards:

University of Vermont Medical Scholar Award "for outstanding and sustained research and scholarly contributions to both the academic discipline and the life of the University of Vermont", 1981-1982
Outstanding Volunteer Contribution Award, The Oxygen Society, 1998

Publications:

Author or co-author of more than 230 publications.

Research Interests:

Environmental toxicology, epithelial cell differentiation, chemical and physical carcinogenesis and cell injury, pulmonary fibrosis, oxygen free radicals, molecular biology of antioxidant enzymes in lung, cell signaling

DR. MARK T. NELSON (1998)

Name: Mark T. Nelson

Address: Department of Pharmacology, University of Vermont
Given Building, Room B-333
89 Beaumont Avenue
Burlington, VT 05405-0068

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Education:
1980 Ph.D., Neural Sciences, Washington University, St. Louis, MO
1976 B.A., Mathematics & Biology with Honors, Tufts University, Medford, MA
1973 Undergraduate studies, Swarthmore College, Swarthmore, PA

Professional Experience:

6/96-present	Chair, Dept. of Pharmacology, College of Medicine, University of Vermont, Burlington, VT
7/95-5/96	Interim Chair, Dept. of Pharmacology, University of Vermont
5/93-present	Professor, Dept. of Molecular Physiology & Biophysics, University of Vermont (Secondary)
7/92-present	Professor, Dept. of Pharmacology, College of Medicine, University of Vermont
7/90-6/92	Associate Professor with Tenure, Dept. of Pharmacology, University of Vermont
6/86-6/90	Assistant Professor, Dept. of Pharmacology, University of Vermont
9/84-5/86	Assistant Professor, Dept. of Pharmacology, University of Miami School of Medicine, Miami, FL.
11/82-8/84	Research Assistant Professor, Dept. of Physiology, University of Maryland School of Medicine, Baltimore, MD. Sponsor: Professor B.K. Krueger
6/81-10/82	Research Fellow of the Alexander von Humboldt-Stiftung, Fakultät für Biologie, Universität Konstanz, West Germany. Sponsor: Professor P. Läuger
4/80-5/81	Research Fellow of the American Heart Association, Dept. of Physiology, University of Maryland, Baltimore, MD. Sponsor: Professor M.P. Blaustein

Honors and Awards:
2001 Fellow, American Heart Association and the Council on Basic Cardiovascular Sciences
1998 Member. Vermont Academy of Science and Engineering
1996 University Scholar, University of Vermont
1985-1990 Established Investigator of the American Heart Association
1982 Louis N. Katz Research Prize for Young Investigators, Honorable Mention (AHA)
1981-1982, 1984 Alexander von Humboldt-Stiftung Fellowship, Universität Konstanz, West Germany
1980-1981 American Heart Association Fellowship, University of Maryland
1978-1980 National Institutes of Health Predoctoral Fellowship, Washington University
1974 National Science Foundation Summer Fellowship, Swarthmore College

Society Memberships:
American Physiological Society
American Society for Biochemistry and Molecular Biology (ASBMB)

American Society for Pharmacology & Experimental Therapeutics (ASPET)
Biophysical Society
Council on Basic Sciences, American Heart Association
Society of General Physiologists

Professional Services

2001-present	Fellow of the American Heart Association
2001-present	Fellow of the Council on Basic Cardiovascular Sciences, AHA
1998-2002	Council Member, Biophysical Society
1995-1998	Member, Research Committee, American Heart Assn., VT/NH Affiliate
1994-1995	Chair, Research Committee, American Heart Assn., VT Affiliate.
1991-1995	Board of Directors of the American Heart Assn., VT Affiliate
1990-present	Advisory Board Member for Program Project Grant of Dr. K. Sanders, Department of Physiology, University of Nevada, Reno.
1988-1995	Member, Research Council, VT Affiliate, American Heart Assn.
1991	Advisory Board Member for Program Project Grant of Dr. A. Cowley, University of Wisconsin, WI
1989, 1990	Three presentations to the local units of the VT Affiliate of the American Heart Assn.
1/1990	Advisory Board Member for Program Project Grant of Dr. A. Fisher, Environmental Medicine, University of Pennsylvania.
1989-1993	Abstract Reviewer for the annual mtg. of the American Heart Assn.
1988	Co-chair of Calcium Channel session of the Biophysical Society Meeting.

Editorial Boards and Journal Review:

2000-present	Editorial Board of Molecular Pharmacology
1999-present	Editorial Board of Journal of Smooth Muscle Research
1998-present	Editor, British Journal of Pharmacology
1993-present	Editorial Board of Circulation Research
1993-present	Editorial Board of the American Journal of Physiology (Cell Physiology)
1991-1997	Editorial Board of the Journal of Vascular Research (formerly Blood Vessels)
1990-1997	Editorial Board of the Journal of Cardiovascular Electrophysiology
1987-1998	Editorial Board of the American Journal of Physiology (Heart and Circulatory Physiology)

Reviewer for**:**
American Journal of Physiology (Lung), Biochemica Biophysica Acta, Biophysical Journal, Experimental Eye Research, FASEB, FEBS Letters, Gastroenterology, Journal of Biological Chemistry, Journal of Clinical Investigation, Journal of General Physiology, Journal of Hypertension, Journal of Membrane Biology, Journal of Neurochemistry, Journal of Pharmacology and Experimental Therapeutics, Journal of Physiology, Journal of Smooth Muscle Research, Journal of Vascular Research, Kidney International, Nature, Pediatric Research, Pflügers Archiv, Proceedings of the National Academy of Sciences, U.S.A., Science

Publications:

Author or co-author of numerous articles and invited keynote addresses, conference papers and reviewed papers.

Research Interests:

Properties and roles of ion channels in smooth-muscle function.

DR. WESLEY L. NYBORG (1997)

Name: Wesley L. Nyborg

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F: (802) 656-0817

Email: wesley.nyborg@uvm.edu

Education: Luther College, Decorah, Iowa, B.A., Physics, Mathematics, 1941
Pennsylvania State University, M.S., Physics, 1944
Pennsylvania State University, Ph.D., Physics, 1947

Professional Experience:

1986-present	Professor Emeritus, University of Vermont
1960-1986	Professor of Physics, University of Vermont
1980-2002	Chairman, Scientific Committee No.66 (Ultrasound) for National Council on Radiation Protection and Measurements (NCRP)
1969	Visiting Scientist, University College, Cardiff
1960	Visiting Scientist, Oxford University
1950-1960	Assistant and Associate Professor of Physics, Brown University
1947-1950	Instructor and Assistant Professor of Physics, Pennsylvania State University

Honors and Awards:

Who's Who in America
Fellow, Acoustical Society of America (ASA), American Institute of Ultrasound in Medicine (AIUM) and American Association for the Advancement of Science (AAAS)
University Scholar (Physical Sciences) University of Vermont 1984
W.J. Fry Memorial Lecturer Award 1990 (AIUM)
Silver Medal, Acoustical Society of America, 1990
National Academy of Engineering, 1996
Distinguished Service Award, Luther College, 1996
Vermont Academy of Science and Engineering, 1997
Lauriston S. Taylor Lecture Award (NCRP), 2001

Publications:

Five Selected Publications (from about 135):

Intermediate Biophysical Mechanics, W. L. Nyborg, Cummings Publishing Co., 1975.

Biophysical Mechanisms for Biological Effects of Ultrasound, HEW Publication, (FDA) 78-8062, Bureau of Radiological Health, Rockville, Maryland 20857, 1978.

Human exposure to ultrasound, W.L.Nyborg, Appl. Occup. Environ. Hyg. **11**, 251-254, 1996.

Acoustic streaming, W.L.Nyborg, Chapter 7, pp.207-231, in M.F.Hamilton and D.T.Blackstock, eds., Nonlinear Acoustics, Academic Press, 1998.

Emerging Therapeutic Ultrasound, Junru Wu and Wesley Nyborg, eds., World Scientific Publishing Co., 2006.

Research Interests:

Physical acoustics, Biophysical ultrasound, Mechanisms for physical, chemical, and biological effects of ultrasound.

DR. COLIN OSBORNE (2007)

Name: Colin Osborne

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217 Billings Farm Road
White River Junction, VT 05001-9486

Telephone: W: (802) 280-6128
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Email: co@conceptsnrec.com

Education: B.Sc. Aeronautics, Imperial College, University of London, 1966 (1st Class-Hon.)
M.Sc. Aerospace Engineering, Massachusetts Institute of Technology, 1968
Ph.D. Aerospace Engineering, Cornell University, 1971
Post Doctoral Imperial College, University of London, 1971-73

Professional Experience:

1989-Present	Vice President (1989-1997), Senior Vice President (1997-2000), President, International Markets (2000-2006), Chief Engineer (2006-Present), Concepts NREC, White River Junction, VT
1988-1989	Centrifugal Compressor Manager, Textron-Lycoming, Stratford, CT
1983-1988	Manager, Analysis Engineering, Dresser-Rand, Olean, NY
1973-1983	Senior Engineer, Creare, Inc., Hanover, NH

Professional Affiliations and Activities:

Member: Royal Aeronautical Society (R.Ae.Soc.), 1966-Present
Senior Member: American Institute of Aeronautics & Astronautics (AIAA), 1971-Present
Member: American Society of Mechanical Engineer (ASME), 1983-Present
Member: Society of Automotive Engineers (SAE), 1983-Present
Program Chairman (1984-1986), President (1986-1988), ASME Olean Chapter
Member: ASME IGTI Turbomachinery Committee, 1983-Present

Honors and Awards:

Associate, City & Guilds Institute (ACGI), 1966
Fulbright Scholarship, 1966
Society of Sigma Xi, Cornell University, 1971
Vermont Academy of Science and Engineering, 2007

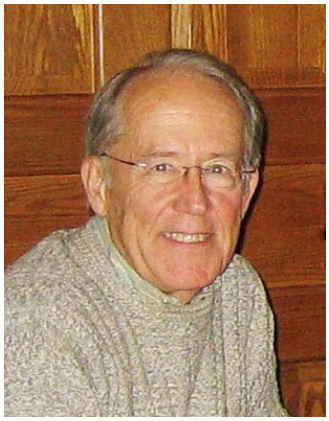
Patents:

6 patents covering compressor stability, diffuser performance, and labyrinth seal flow control.

Publications:

Author or co-author of many peer reviewed papers (Journals of AIAA, ASME, and Fluid Mechanics), conference presentations, research reports plus well over 200 engineering project reports. Also, an invited lecturer at numerous courses and workshops worldwide on turbomachinery topics.

DR. GEORGE F. PINDER (2007)



Name: George F. Pinder

Address: 188 Bishop Road
Shelburne, VT 05452

Telephone: (802) 985-4998 (H); (802) 656-8697 (W)

Email: pinder@uvm.edu

Education: B.Sc. (Honors), University of Western Ontario, June 1965
Ph.D. University of Illinois, June 1968

Professional Experience:

March 2001-present Professor of Computer Science
July 1993-present Director, Research Center for Groundwater Remediation Design
July 1992-June 1996 Dean, Division of Engineering, Mathematics and Business Administration
July 1990-present Professor of Mathematics and Statistics
July 1989-June 1996 Dean, College of Engineering and Mathematics, UVM, Burlington, Vt
July 1989-present Professor of Civil and Environmental Engineering
July 1980-June 1989 Chairman, Department of Civil Engineering, Princeton University, Princeton, New Jersey 08544
Sept. 1977-July 1980 Professor of Civil Engineering, Princeton University, Director, Water Resources Program
Sept. 1972-Sept.1977 Associate Professor of Civil Engineering, Princeton University, Director, Water Resources Program
Dec. 1968-Sept. 1972 Research Hydrologist, U.S. Geological Survey, Water Resources Division, Atlantic Coast Region, Arlington, Virginia
June 1968-Dec. 1968 Nova Scotia Department of Mines, Nova Scotia, Canada

Professional Affiliations and Activities:

American Society of Civil Engineers
American Geophysical Union
American Institute of Hydrology

Honors and Awards:

RCA Professor of Energy Resources, 1975-1989 (Princeton University)
Horton Award, the American Geophysical Union for an outstanding paper on hydrology (1969)
O.E. Meinzer Award, presented by the Geological Society of America for an outstanding contribution to the field of hydrogeology (1975)
The Eminent Scientists Award medal for `Recognition for ...outstanding contributions in the field of water resources' WIT (1992)
Fellow, American Geophysical Union (1993)
University of Vermont University Scholar `...in recognition of contributions to research and scholarship' (1993).
Julian Hinds Medal of the American Society of Civil Engineers for advancing `... engineering in the field of planning, development, and management of water resources ' (2002).
Fellow of Wessex Institute of Technology (2004)
University of Vermont College Distinguished Professor (2005)

Publications: Refereed publications: 116. Books Authored: 8. Books edited: 16
See www.georgepinder.com

DR. DANIEL SCHARSTEIN (2009)

Name: Daniel Scharstein

Address: Department of Computer Science
633 McCardell Bicentennial Hall
Middlebury College
Middlebury, VT 05763

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Email: schar@middlebury.edu

Education:

Vordiplom	Computer Science, Universität Karlsruhe, Germany, 1989
M.S.	Computer Science, Cornell University, 1993
Ph.D.	Computer Science, Cornell University, 1997

Research Interests: Computer vision, stereo vision, performance evaluation, robotics.

Professional Experience:

2004- present	Associate Professor, Middlebury College, VT
1997- 2004	Assistant Professor, Middlebury College, VT
Summers 2001-2009	Consultant, Microsoft Research, Redmond, WA
1996- 1997	Visiting Assistant Professor, Williams College, MA

Professional Affiliations and Activities:

Member, Institute of Electrical and Electronics Engineers (IEEE), Computer Society.
Member, Council on Undergraduate Research (CUR).

Honors and Awards:

Perkins Award for Excellence in Teaching, Middlebury College, 2001.
National first prize in the 1987 German competition "Jugend forscht" for building a robot that solves Rubik's Cube.

Funding:

CAREER award, National Science Foundation, 2000.
Three RUI (Research at Undergraduate Institutions) awards, National Science Foundation, 2004, 2007, 2009.

Publications:

D. Scharstein, *View Synthesis Using Stereo Vision*, volume 1583 of *Lecture Notes in Computer Science (LNCS)*, Springer Verlag, 1999.
Author or co-author of more than 30 reviewed journal and conference papers, including in IEEE Transactions on Pattern Analysis and Machine Intelligence, International Journal of Computer Vision, Image and Vision Computing, Computer Vision and Image Understanding, and International Journal of Robotics Research.

Other activities:

Maintains internationally-known benchmarks for stereo and optical flow algorithms at http://vision.middlebury.edu/.

DR. SALLIE P. SHELDON (2006)

Name: Sallie P. Sheldon

Address: Department of Biology
Middlebury College

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Email: sheldon@middlebury.edu

Education:

B.A. State University of New York at Buffalo (Biology). Thesis: Differential imprinting in fowl. Cambridge, 1974

M.A. State University of New York at Buffalo (Fisheries). Thesis: The age and growth of walleyes (Stizostedion vitreum vitreum) in the New York waters of Lake Erie, 1977

Ph.D. University of Minnesota (Ecology). Thesis: The effects of herbivory and other factors on species abundance and the diversity of freshwater macrophyte communities, 1984

PostDoc University of Washington Friday Harbor Marine Lab, 1985

Academic Appointments:

2001-2	Marine Biological Labs, Woods Hole, Postdoctoral Fellow.
1999-	Middlebury College; Professor of Biology
1995-6	Center for Limnology, University of Wisconsin, Postdoctoral Fellow.
1990-8	Middlebury College; Associate Professor of Biology.
1985-90	Middlebury College; Assistant Professor of Biology.
1982-87	Shoals Marine Laboratory (Cornell University); Visiting Assistant Professor (summers).
1984-85	University of Santa Clara; Visiting Assistant Professor of Biology.

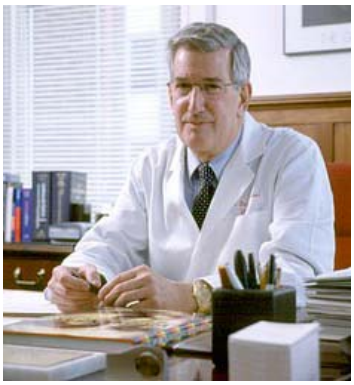
Professional Experience:

2001-2	Community composition of inland lakes on Newfoundland.
1997-8	Transmission of terrestrial phosphorus to lakes by geese.
1996-7	Climate effects as determinants of interannual variation in the forage base supporting Great Lakes Salmonid fisheries.
1996	Mark and recapture of polar bears, with tissue samples for isotope analysis, NWT Wildlife Service, Resolute, Canada.
1993-4	Revision of the Quantitative Reasoning portion of the GRE, Princeton NJ.
1987-89	Freshwater Institute, Rensselaer Polytechnic Institute. Differential use of aquatic plants by fish and invertebrates.
1983-85	Friday Harbor Laboratory, University of Washington. Movements and resource partitioning of intertidal and subtidal hermit crabs. Frequency of species-specific and sex-specific parasitism and hyper-parasitism of hermit crabs.
1979-82	U.S. Fish and Wildlife Service. Barrow, AK. Population estimation and movements of free ranging polar bears. Distribution of fish, plankton and benthos in and under the Arctic pack ice in winter.
1974-77	State University of New York at Buffalo. Age, growth and movement patterns of walleyes, Stizostedion vitreum vitreum in Lake Erie, the Niagara River and their tributaries.

Intellectual Property Agreement: 1998-MIDDFOIL; License agreement between EnviroScience (OH) and Middlebury College.

Publications: Over 30 refereed articles

DR. BURTON E. SOBEL (1996)



Name: Burton E. Sobel

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Email: burt.sobel@vtmednet.org

Education:

A.B.	Cornell University, 1958
M.D.	Harvard Medical School, 1962
Post Doctoral Intern (Medicine)	Peter Bent Brigham Hospital, 1962-1963
Jr. Assist. Resident (Medicine)	Peter Bent Brigham Hospital, 1963-1964
Clinical Associate	National Institutes of Health, 1964-1966
Senior Resident (Medicine)	Peter Bent Brigham Hospital, 1966-1967
Clinical Associate	National Institutes of Health, 1967-1968

Professional Experience:

1994-present	E.L. Amidon Professor and Chair, Department of Medicine and Professor of Biochemistry, University of Vermont, Burlington, VT
1985-1994	Tobias and Hortense Lewin Distinguished Professor in Cardiovascular Disease, Washington University, St. Louis, MO
1973-1994	Director, Cardiovascular Division, Washington University, St. Louis, MO
1968-1973	Director, Cardiac Care Unit, University of California at San Diego, La Jolla, CA
1972-1973	Director, Myocardial Infarction Research Unit, University of California at San Diego, La Jolla, CA

Professional Affiliations and Activities:

Member; Vermont Academy of Science & Engineering, 1994
Member; American Society for Clinical Investigation
Member; Association of American Physicians
President; Association of Professors of Cardiology, 1993
Fellow; American Association for the Advancement of Science
Master; American College of Physicians

Honors and Awards:

M.D. degree, magna cum laude, Harvard Medical School, 1962
Career Development Award, National Heart and Lung Institute, 1971
Alpha Omega Alpha, 1961
Councilor, American Society for Clinical Investigation, 1978-1980
Heart Research Foundation, International Recognition Award, 1981
American Heart Association Scientific Councils Distinguished Achievement Award, 1984
American College of Cardiology Distinguished Scientist Award, 1987
Robert J. and Claire Pasarow Foundation Award, 1988
James B. Herrick Award, American Heart Association National Meeting, 1992

Councilor, American Association for the Advancement of Science (Medical Sciences Section Delegate), 1997-2000
Special Recognition Award, American Heart Association Council on Arteriosclerosis Thrombosis, and Vascular Biology, American Heart Association National Meeting, 1999

Publications:

Author, co-author, or editor of 35 books, 496 reviewed papers, and 325 invited reviews and editorials.

Patents:

4 patents covering biochemical and physiological assays

Research Interests:

Cardiovascular biochemistry and molecular biology

Teaching Interests:

Medicine and cardiology
Professor and Chair, Department of Medicine and Adjunct Professor of Biochemistry,
University of Vermont

DR. GRACE ANN SPATAFORA

Name: Grace Ann Spatafora

Address: Professor of Biology, Middlebury College
276 Bicentennial Way, MBH354
Middlebury, Vermont 05753

Telephone: (802)443-5431

Email: spatafor@middlebury.edu

Education:

B.S.	Duke University, Durham, North Carolina Psychology 76-80
M.S.	University of Richmond, Richmond, Virginia Biology '80-'83
Ph.D.	St. Louis University, St. Louis, Missouri Biology '83-'88
Post-doc	Washington University, St. Louis, Missouri Biology '88-'91
Post-doc	University of Alabama, Birmingham, Alabama Microbiology '91-'92

Professional Experience:

2007-2010: Promotions Committee, Middlebury College, VT.
2004-2007: Chair, Department of Biology, Middlebury College, VT.
2004-present: Professor, Department of Biology, Middlebury College, VT.
1999-2004: Associate Professor, Department of Biology, Middlebury College, VT.
1995-1999: Assistant Professor, Department of Biology, Middlebury College, VT.
1992-1995: Visiting Assistant Professor, Department of Biology, Middlebury College, VT.
1988-1991: NRSA Post Doctoral Fellow, Washington University, Dept. of Biology, St. Louis, MO.

Professional Affiliations:

American Society for Microbiology
International Association for Dental Research
Sigma Xi Scientific Research Society

Professional Honors:

Perkins Award for Excellence in Teaching nominee, Middlebury College, VT, 1999
Oral, Dental and Craniofacial Sciences (ODCS), Center for Scientific Review, NIH, 2002-2006
American Society for Microbiology Carski Award nominee, 2007-2010

Selected Publications [* denotes current or former Middlebury College undergraduate]:

1. Dunning, D.W.*, L.W. McCall*, W.F. Powell*, W. T. Arscott*, E. M. McConocha*, S. D. Goodman, and G. Spatafora. 2008. SloR modulatioin of the *Streptococcus mutans* acid tolerance response involves the GcrR response regulator as an essential intermediary. Microbiology 154:1132-43.
2. Senadheera, M.D*, A.W.C. Lee, D.C.I. Huang, G.A. Spatafora, S.D. Goodman, and D.G. Cvitkovitch. 2007. The *Streptococcus mutans vicX* gene product modulates *gtfB/C* expression, biofilm formation, genetic competence and oxidative stress tolerance. J. Bacteriol. 189:1451-58.

3. Rolerson, E*****, A. Swick*****, L. Newlon*****, C. Palmer*****, Y. Pan*****, B. Keeshan*****, and G. Spatafora. 2006. The SloR/Dlg metalloregulator modulates *Streptococcus mutans* virulence gene expression. J. Bacteriol. 188:5033-5044.
4. Senadheera*****, M.D., B. Guggenheim, G. Spatafora, C. Huang, J. Choi, D. Hung, J. Treglown, S. Goodman, R. Ellen and D. Cvitkovitch. 2005. A VicR/K signal transduction system in *Streptococcus mutans* affects *gtfB*, *gtfC* and *ftf* expression, biofilm formation and genetic competence development. J. Bacteriol. 187:4064-4076.
5. Idone*, V., S. Brendtro*, R. Gillespie*, S. Kocaj*, E. Peterson*, M. Rendi*, W. Warren*, S. Michalek, K. Krastel, D. Cvitkovitch and G. Spatafora. 2003. Effect of an orphan response regulator on *S. mutans* sucrose-dependent adherence and cariogenesis. Infect. Immun. 71:4351-4360.

DR. PAULA B. TRACY (2003)

Name: Paula B. Tracy

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University of Vermont, College of Medicine
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Given Building, Room C401
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Email: Paula.Tracy@uvm.edu

Education: B.A. William Smith College, Geneva, NY, 1972. Biology
Ph.D. Syracuse University, Syracuse, NY, 1978. Biochemistry

Professional Experience:

1977-1978	Post-Doctoral Fellow, Syracuse University, Syracuse, NY
1978-1980	Post-Doctoral Fellow, Mayo Clinic, Rochester, MN
1980-1983	Blood Banking and Hemostasis Trainee, Mayo Clinic, Rochester, MN
1983-1984	Assistant Professor of Pathology, University of Rochester, School of Medicine and Dentistry, Rochester, NY
1984-1989	Research Assistant Professor of Medicine and Biochemistry, UVM, Burlington, VT
1989-1991	Research Associate Professor of Medicine and Biochemistry, UVM, Burlington, VT
1991-1997	Associate Professor of Biochemistry and Medicine, UVM, Burlington, VT
1997-pres	Professor of Biochemistry and Medicine, UVM, Burlington, VT
2005-pres	Interim Chairperson, Biochemistry Department, UVM, Burlington, VT

Other Experience and Professional Memberships

1989-1993	Member, NHLBI Hematology I Study Section
1997-2001	Member, NHLBI Hematology I Study Section
1990-1999	Associate Editor, Arteriosclerosis, Thrombosis and Vascular Biology
1999-pres	Member, Editorial Board, Arteriosclerosis, Thrombosis and Vascular Biology
1994-1996	Vice-Chair/Chair, Gordon Conference on Hemostasis
1995-1999	Member, Editorial Board, Blood
2005	Co-organizer, FASEB Summer Research Conference, Proteases in Hemostasis and Vascular Biology

Honors and Awards:

1976	Alexander Gourevitch Memorial Award for Meritorious Achievements as a Graduate Student in Research, Syracuse, NY
1982	Edward C. Kendall Award for Meritorious Research, Mayo Clinic
1987-1992	Established Investigator, American Heart Association
2001	ATVB Special Recognition Award
2004	University Scholar, University of Vermont
2005	American Medical Women's Assn, "Gender Equity Award", UVM Chapter

Selected Publications [Since 1996]

8. Bajzar L, Nesheim ME and Tracy PB: The profibrinolytic effect of activated protein C in clots formed from plasma is TAFI-dependent (1996). Blood 88:2093-2100.

9. Bajzar L, Kalafatis M, Simioni P and Tracy PB: An antifibrinolytic mechanism describing the prothrombotic effect associated with factor V Leiden (1996). J. Biol. Chem. 271:22949-22952.
10. Bouchard BA, Shatos MA and Tracy PB: Human brain pericytes differentially regulate the expression of procoagulant enzyme complexes comprising the extrinsic pathway of blood coagulation (1997). Arterioscl. Thromb. Vasc. Biol. 17:1-9.
11. Bouchard BA, Catcher CS, Trash BR, Adida C and Tracy PB: Effector cell protease receptor-1 (EPR-1), a platelet activation-dependent membrane protein regulates prothrombinase-catalyzed thrombin generation (1997). J. Biol. Chem. 272:9244-9251.
12. Bajzar L, Nesheim ME, and Tracy PB: Both cellular and soluble forms of thrombomodulin inhibit fibrinolysis by potentiating the activation of TAFI (1998). J. Biol. Chem. 273:2792-2798.
13. Camire RM, Kalafatis M, Simioni P, Girolami A, and Tracy PB: Platelet-derived factor Va and factor VaLeiden cofactor activity are sustained on the surface of activated platelets despite the presence of activated protein C (1998). Blood 91:2818-2829.
14. Camire RM, Kalafatis M and Tracy PB: Proteolysis of factor V by cathepsin G and elastase indicates that cleavage at Arg1545 optimizes cofactor function by facilitating factor Xa binding (1998). Biochemistry 37:11896-11906.
15. Camire RM, Pollak ES, Kaushansky K and Tracy PB: Secretable human platelet-derived factor V originates from the plasma pool (1998). Blood 92:3035-3041.
16. Tracy PB, Camire RM, Pollak ES, Kaushansky K: Where does platelet factor V originate? (Response to letter). (1999) Blood 93:3152.
17. Hayes KL, and Tracy PB: The platelet high affinity binding site for thrombin mimics hirudin, modulates thrombin-induced platelet activation and is distinct from the glycoprotein Ib-IX-V complex (1999). J. Biol. Chem., 244:972-980.
18. Bouchard BA and Tracy PB: Platelets, leukocytes and coagulation (Review) (2001). Curr. Opin. Hematol. 8:263-269.
19. Bouchard BA, Silveira JR and Tracy PB: On the role of EPR-1 or an EPR-1-like molecule in regulating factor Xa incorporation into Prothrombinase (2001). Thromb Haemost. 86:1133-1134.
20. Bouchard BA and Tracy PB: Platelet regulation of thrombin generation in cardiovascular disease (Review) (2001). Ital. Heart J. 2:819-823.
21. Silveira JR, Kalafatis M and Tracy PB: Carbohydrate moieties on the procofactor factor V, but not the derived cofactor factor Va, regulate its inactivation by activated protein C (2002). Biochemistry 41:1672-1680.
22. Bouchard BA, Butenas S, Mann KG and Tracy PB: Interactions between platelets and the coagulation system. In: Platelets. Michelson AD, ed. Academic Press, San Diego, CA, pp. 229-253, 2002.
23. Gould WR, Silveira JR and Tracy PB: Unique in vivo modifications of coagulation factor V produce a physically and functionally distinct platelet-derived cofactor: characterization of purified platelet-derived factor V/Va (2004). J. Biol. Chem. 279(4):2383-2393.
24. Gould WR, Simioni P, Silveira JR, Luni S and Tracy PB: Megakaryocytes endocytose and subsequently modify human factor V in vivo to form the entire pool of a unique platelet-derived cofactor. (2005) J. Thromb. Haemost:3:45-456.
25. Bouchard BA, Williams JL, Meisler NT, Long MW and Tracy PB: Endocytosis of plasma-derived factor V by megakaryocytes occurs via a clathrin-dependent, receptor-mediated event (2005) J. Thromb. Haemost: 3:541-551.
26. Bouchard BA, Butenas S, Mann KG and Tracy PB: Interactions between platelets and the coagulation system. In: Platelets, Michelson AD (Ed), Academic Press, San Diego, CA, in press.

DR. JUDITH VAN HOUTEN (2008)

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Department of Biology
Marsh Life Science Building
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Email: judith.vanhouten@uvm.edu

Education: B.S. Biology, 1972, Pacific Lutheran University
Ph.D. Molecular Biology, 1976, University of California at Santa Barbara
Graduate advisors: Professors Ching Kung and Eduardo Orias
Postdoctoral Research Associate, 1977-79, University of British Columbia

Professional Experience:

2001 – Present	Director, Vermont Genetics Network (NIH INBRE)
2001 – 2003	Co-Director, Vermont Genetics Network (NIH INBRE)
2005 – Present	Project Director for VT EPSCoR grant and State EPSCoR Director for Vermont
1990 – 2005	Associate Director, Vermont EPSCoR
1988 – 1994	Director, UVM Cell and Molecular Biology Program
1992 – Present	Professor, Dept. of Biology, University of Vermont
1995 – 2005	Chair, Department of Biology at UVM
1986 – 1992	Associate Professor, Dept. of Zoology, University of Vermont
1980 – 1986	Assistant Professor, Dept. of Zoology, University of Vermont
1979 – 1980	Visiting Assistant Professor, University of Iowa, Dept. of Zoology
1994 – Present	Director, HELiX Program at UVM

Professional Affiliations and Activities:

2005 – present	Member of CMBK Study Section at NIH
2005 – present	Ex-Officio Member, Vermont Technology Council
1994-1995	Elected Program Chair, Association for Chemoreception Sciences
1995-1996	Elected as President of Association for Chemoreception Sciences

Honors and Awards:

1996	Manheimer Award for Career Achievements in Chemosensory Sciences
1991	University Scholar Award
1990-1997	Pepper Award from NIH
2006	Jackie M. Gribbons Leadership Award from Vermont Women in Higher Education
2006	Elected as Vice Chair of the NSF EPSCoR PD Council
2008	Chair of the NSF EPSCoR PD Council
2008	Acting Chair of the IDeA PI Association
2006-2009	Elected to the EPSCoR/IDeA Foundation and Coalition
2005	Largest grant awarded to a PI at the University of Vermont
2006	Inducted into Phi Beta Kappa
1997-present	George H. Perkins Professor

Publications:
Author or co-author of more than 44 peer reviewed papers in Science, Journal of Experimental Biology, Journal of Membrane Biology, Cell Motility and Cytoskeleton and 8 book chapters

DR. SUSAN S. WALLACE (1996)

Name: Susan S. Wallace

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Education:

B.S.	Chemistry, Mathematics	Marymount College, Tarrytown, 1959
M.S.	Bioradiology	University of California, Berkley, 1961
Ph.D.	Biophysics	Cornell University Graduate School of Medical Sciences, Sloan Kettering Division, 1965
Post Doctoral	Immunochemistry	Columbia University College of Physicians & Surgeons, 1965-1967

Professional Experience:

1988-present	Professor & Chairperson, Department of Microbiology and Molecular Genetics, University of Vermont
1988 – present	Graduate Faculty, University of Vermont
1988 - present	Member, Vermont Cancer Center
1993 - present	Director, Vermont Cancer Center Genome Stability and Expression Program
2000 - present	Director, Department of Energy Vermont EPSCoR Program
1979 – 1988	Professor, Department of Microbiology, New York Medical College
1976 – 1979	Associate Professor, Department of Microbiology, New York Medical College
1977 – 1987	Graduate Program Director, Department of Microbiology, New York Medical College
1973 – 1976	Associate Professor of Biological Sciences, Herbert H. Lehman College, CUNY
1970 – 1988	Doctoral Faculty, CUNY
1969 – 1973	Assistant Professor of Biological Sciences, Herbert H. Lehman College, CUNY
1967 – 1968	Instructor, Biological Sciences, Hunter College, CUNY

Professional Affiliations and Activities:

American Society for Biological Chemistry and Molecular Biology, Radiation Research Society, American Society for Microbiology, Environmental Mutagen Society, American Association for Cancer Research, AAAS, Sigma Xi, American Women in Science
Editorial Boards of: Journal of Biological Chemistry (Editorial Board) 2005 – present, DNA Repair (Associate Editor) 2004 – present, Molecular Cancer Research (Associate Editor) 2003 – present, Radiation Research (Senior Editor)2001 – present, Environmental Health Perspectives (Associate Editor) 2000 – present, Mutation Research/DNA Repair (Editorial Board) 2000 – 2004, Chemical Research in Toxicology (Associate Editor) 1999 – 2002, Cell Biology and Toxicology (Associate Editor) 1984 – present, Mutation Research (Associate Editor) 1990 – 2000, Radiation Research (Associate Editor) 1980 – 1983
Service to National and International Organizations (selected):
Member, International Scientific Committee, 9th International Workshop “Radiation Damage to DNA”, 2006
Member, International Advisory Committee to “Great South West” Canceropôle, City of Toulouse, France, 2005-present

Program Committee, US/EU Workshop, "Systems Level Understanding Of DNA Damage Responses, 2005
Chair, AACR Special Conference: Radiation Biology & Cancer: From Molecular Responses to the Clinic, 2004
Member, NASA Review Panel for Radiation Research, 2004
Co-Chair, ASM Conference on DNA Repair and Mutagenesis, 2004, 1999
Member, Board of Directors, FASEB, 2000-2003
Member, NASA Radiobiology External Review Panel, 2001
NIH/DOE Workshop, Cellular Responses to Low Doses of Ionizing Radiation, 1999
Conference Vice-Chair, Chair, Gordon Mutagenesis Conference, 1996, 1998
Chair, NCI Workshop: "Molecular Biology to Radiation Oncology", 1997
Mammalian Cells to Ionizing Radiation", 1995
Member, Board of Scientific Counselors of the Division of Cancer Etiology, NCI, 1995
Member, Biological and Environmental Research Advisory Committee, Department of Energy, 1994-1999
Member, National Academy of Sciences Board on Radiation Effects Research, National Research Council, National Academy of Sciences, 1994-1998
Member, New England Governors Council Biotechnology Advisory Panel, 1990-1995
Member, NASA Space Radiation Health Discipline Working Group, 1992-1996
Scientific Advisory Board, Fanconi Anemia Research Fund, 1992-2000
Member, External Advisory Committee, Harvard School of Public Health, NIEHS Center, 1991-present
Member, Biotechnology Subcommittee, Council of Presidents, New England Land-Grant Universities, 1990-1995

Honors and Awards:

John B. Little Award, Harvard School of Public Health, 2005
Phi Beta Kappa, Honorary, 2005
University of Vermont Scholar, 1997
Keynote Speaker, Sealy Center for Molecular Sciences, May 1997
Failla Awardee and Memorial Lecturer, April 1996
Member and Treasurer, Vermont Academy of Sciences and Engineering, 1996 - present
Gordon Mutagenesis Conference, Vice Chair, Chair (elected), 1996, 1998
NIH Merit Award, 1987-1995, 1995-2003
Leonard J. Tolmach Memorial Lecturer, November 1995
Herbert M. Parker Memorial Lecturer, October 1995
Plenary Lecturer, Environmental Mutagen Society, May 1993
President, Radiation Research Society (elected), 1991-1992
American Cancer Society Scholar, 1974-1975
Woodrow Wilson Honorary National Fellow, 1959-1960

Publications:

Over 140 original publications and book chapters.

Research Interests:

Oxidative DNA Damage and Repair
Interaction between DNA Damages and DNA Polymerases

Teaching Interests:

Molecular Biology/Genetics

GARY E. WARD (2009)

Name: Gary E. Ward

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316 Stafford Hall
University of Vermont
Burlington, VT 05405 USA

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Email: Gary.Ward@uvm.edu

Education:

Ph.D., Marine Biology, University of California at San Diego		1985
B.Sc. (Honors), Biophysics, University of New Brunswick		1979

Professional Experience:

1996-present	Assistant Professor (1996-2002), Associate Professor (2002-2007), Professor (2007-present), Department of Microbiology and Molecular Genetics, University of Vermont (UVM)
1989-1996	Senior Staff Fellow, Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda MD
1985-1989	Postdoctoral fellow, Biochemistry and Biophysics, University of California at San Francisco

Honors and Awards:

2009	Vermont Academy of Science and Engineering
2001-2004	Burroughs Wellcome New Investigator in Molecular Parasitology
1985-1988	Jane Coffin Childs Postdoctoral Fellowship
1986	Martin D. Kamen Prize for Graduate Research in Biological Chemistry
1979	Governor General of Canada Gold Medal

Professional affiliations and activities:

PubMed Central National Advisory Board, National Library of Medicine (2007-present; Chair 2009-present)
Education Committee, Marine Biological Laboratory (2009-present)
Editorial Boards: *Eukaryotic Cell* (2007-present); *PLoS Biology* (2003-present)
Treasurer and Member of the Executive Committee, American Society for Cell Biology (ASCB; 2002-2008)
Finance and Audit Committee, ASCB (1996-2008; Chair, 2002-2008)
Public Access Working Group, National Library of Medicine (2005-2006)
Finance Committee, Federation of American Societies for Experimental Biology (1998-2000)
NIH Study Sections: Pathogenic Eukaryotes (PTHE, 2006); Special Emphasis Review Panels ZRG1 AARR-1 (2000) and BCMB-Q (2006)
Module Director, Biology of Parasitism Course, Marine Biological Laboratory (2007, 2009)
Co-Director, Vermont Immunobiology and Infectious Diseases Center, UVM (2006-present)
Member, Vermont Cancer Center
Member, Cell and Molecular Biology Program, UVM
Member, Graduate College, UVM
Member, ASCB (1980-present), American Society for Tropical Medicine and Hygiene (1989-2002), American Society for Microbiology (2003-present), American Association for the Advancement of Science (1998-present)

Publications:
Author or co-author on more than forty peer reviewed articles and reviews.

Patents:
US Patent #7,067,315 : Identification of anti-protozoal agents

Research interests:
Cell biology of protozoan parasites; malaria and toxoplasmosis; development of antiparasitic drugs.

DR. DAVID M. WARSHAW (1999)

Name: David M. Warshaw

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Fax: 802-656-0747

E-mail: warshaw@physiology.med.uvm.edu

Education: B.S. - 1973 - Electrical Engineering, Rutgers University, New Brunswick, NJ
Ph.D. - 1978 - Physiology and Biophysics, University of Vermont, Burlington, VT
Postdoctorate - 1978 – Biophysics, Aarhus University, Denmark
- 1978-1983 – UMass Medical School

Professional Experience:

1975 - 1978:	Graduate Student, Physiology & Biophysics, Univ. of Vermont; Advisor: Dr. W. Halpern
1978 - 1983:	Postdoctoral Fellow/Instructor, Physiology & Biophysics, UMass Mentor: Dr. F. Fay
1983 - 1989:	Assistant Professor, Physiology & Biophysics, University of Vermont
1989 - 1991:	Associate Professor, Physiology & Biophysics, University of Vermont
1991-1995:	Professor, Molecular Physiology & Biophysics, University of Vermont
1995-Present:	Professor and Chairman, Molecular Physiology & Biophysics, University of Vermont

Honors:

1988-93:	American Heart Association Established Investigatorship
1989:	Encyclopedia Britannica, author: "Smooth Muscle: Muscles and Muscle Systems"
1999:	University of Vermont Scholar
1999:	Member, Vermont Academy of Science and Engineering
2001:	U.S. Rep. for the NHLBI/US- Russia Symposium on Basic Research in CV and Pulmonary Diseases.
2001:	American Heart Association Fellow

Professional Societies

American Heart Association - Basic Science Member
American Physiological Society - Regular Member
Biophysical Society - Senior Member
American Association for the Advancement of Science - Regular Member
Sigma Xi

Publications:

Author or co-author of more than 75 peer-reviewed papers in *Science, Proceedings of National Academy of Science USA, Circulation Research*, *Journal of Cell Biology, Biophysics Journal,* and other journals.

Editorial Work:
Editorial Board (Past & Present): J Vascular Res, Am J Physiol (Cell), J Muscle Res & Cell Motil, Biophys J
Manuscript Review: Circ Res, PNAS, Nature, J Clin Inv, J Physiol (Lond), Science, J Mol Biol, JCB, J Cell Sci

Research Interests:

Molecular Motors and Heart Disease: The Warshaw Molecular Motors Group focuses on the structure and function of myosin, a molecular motor associated with biological movement ranging from muscle contraction to intracellular vesicular transport. Researchers still do not understand how myosin converts the energy from ATP hydrolysis into mechanical work as the molecular motor moves along its actin track. Our approach is a comparative one by studying myosin from various tissue sources that differ substantially in both their structure and functional capacities. Additional insight can be obtained from genetically mutated myosin and actin, which lead to inherited forms of human heart failure. We use the power of molecular biophysics and single molecule techniques to characterize the molecular performance of the actomyosin motor.

DR. WILLIAM T. WICKNER (2002)

Name: William Tobey Wickner

Address: Department of Biochemistry, Dartmouth Medical School 7200 Vail Building, Hanover, N.H. 03755-3844

Telephone: 603-650-1701

Email: Bill.Wickner@Dartmouth.edu

Education:

B.A.	Yale University, B.A. in Chemistry, June 1967
MD	Harvard Medical School, June 1973

Professional Experience:

1968-71	Harvard Medical School, Department of Biochemistry (predoctoral research supervisor: Dr. Eugene P. Kennedy)
1971-74	Stanford Medical School Department of Biochemistry (postdoctoral supervisor: Dr. Arthur Kornberg)
1974-76	Senior Research Fellow, Stanford Medical School, Department of Biochemistry
1976-93	Assistant, Associate, and Full Professor, University of California, Los Angeles, Department of Biological Chemistry and Mol. Biol. Institute
1993-	Professor of Biochemistry Dartmouth Medical School

Professional Affiliations and Activities:

1988-93	Assistant and Associate Director, Molecular Biology Institute, UCLA
1987-91	NIH Cell Biology Study Section
1989-91	Chairman, NIH Cell Biol. Study Section
1991-95	Editorial Board, Annual Reviews of Biochemistry
1994-96	U.S. Representative, Human Frontier Science Program Organization Fellowship Committee
1993-00	Chairman, Department of Biochemistry
2004-	Editorial Board, Proc. Natl. Acad. Sci. USA

Fellowships and Honors:

1966, 67	Phi Beta Kappa, Magna cum laude
1971-73	Graub Fellow, Cystic Fibrosis Foundation
1974-76	Mellon Fellow
1979-84	Am. Cancer Soc. Faculty Research Award
1982-83	Guggenheim Fellow
1988-98	NIH Merit Award
1993	Chilcott Distinguished Professor of Biochemistry
1995	Fellow of American Society for Microbiology
1996	Member of U.S. National Academy of Sciences
2000	Foreign Member of EMBO, the European Molecular Biology Organization
2003	Member of American Academy of Arts & Sciences

Publications:

Author or co-author of more than 180 reviewed papers in scientific literature

DR. P. FRANK WINKLER (2005)

Name: P. Frank Winkler

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Middlebury, VT 05753

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F: (802) 443-2072

Email: winkler@middlebury.edu

Education:
B.S. California Institute of Technology 1964 (Physics, with Honors)
A.M. Harvard University (Physics) 1965
Ph.D. Harvard University (Physics) 1970
Thesis: "A Precise Determination of the Proton Magnetic Moment"
Advisors: D. Kleppner & N.F. Ramsey

Professional Experience:

Middlebury College, Middlebury, Vermont 1969-present
Gamaliel Painter Bicentennial Professor of Physics
Massachusetts Institute of Technology
Visiting Scientist, Center for Space Research 1973-74
(on leave from Middlebury) 1978-80
Scientific Consultant, SAS-3 1976
Scientific Consultant, Einstein Observatory 1980-82
Institute of Astronomy, Cambridge University, UK
Senior Visiting Fellow 1985-86
Cerro Tololo Inter-American Observatory, Chile
Visiting Resident Scientist 1990-91, 1996-97
Joint Institute for Laboratory Astrophysics, Boulder CO
Visiting Fellow 1991

Professional Affiliations and Activities:

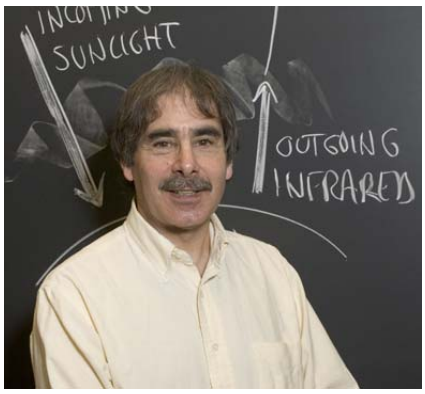
American Astronomical Society
American Physical Society
International Astronomical Union
Council on Undergraduate Research
Sigma Xi
Vermont Academy of Science and Engineering, elected 2005

Honors and Awards:

National Merit Scholarship, Caltech 1960-64
DuPont Travel Prize, Caltech 1963
Harvard Graduate Fellowship 1964-65
NSF Graduate Fellowship 1965-69
Alfred P. Sloan Research Fellowship 1976-80

Publications:
Author of over 75 scientific papers, primarily in astrophysics, in journals including The Astrophysical Journal, The Astronomical Journal, Astronomy & Astrophysics, and Nature.

DR. RICHARD WOLFSON (2003)



Name: Richard Wolfson

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Middlebury College
Middlebury, VT 05753

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Email: wolfson@middlebury.edu

Education:

	Physics & Philosophy	M.I.T., 1965-1967
B.A.	Physics & Philosophy	Swarthmore College, 1967-1969
M.S.	Environmental Studies	University of Michigan, 1970-1971
Ph.D.	Physics	Dartmouth College, 1973-1976

Professional Experience:

1976-present Middlebury College, Middlebury, VT
Assistant Professor of Physics (1976-82)
Associate Professor of Physics (1982-87)
Professor of Physics (1987-present)
Chairperson, Department of Physics (1988-1991)
George Adams Ellis Professor of the Liberal Arts (1992 - 97)
Benjamin F. Wissler Professor of Physics (2000 -present)

1998-1999 Stanford University, Stanford, CA
Visiting Scholar, Department of Physics

1993 St Andrews University, St Andrews, Scotland
Visiting Scientist, Solar Theory Group, Department of Mathematical and Computational Sciences (winter-spring 1993)

1980-1981 National Center for Atmospheric Research, Boulder, CO
Summer 1983 Visiting Scientist, High Altitude Observatory

1974-1976 University of New Hampshire
Instructor, graduate level environmental education courses for UNH School of Continuing Studies

1971-1973 Kearsarge Regional High School, North Sutton, NH
Teacher, physical and environmental sciences

1970-1971 University of Michigan
Research assistant, School of Natural Resources

1969-1970 Massachusetts General Hospital
Medical Physics Research, MGH Cyclotron Laboratory

Professional Affiliations and Activities:

American Physical Society
American Association of Physics Teachers
American Astronomical Society
International Astronomical Union

Honors and Awards:

Sigma Xi, 1968
Honors graduate, Swarthmore, 1969
Woodrow Wilson Fellow, 1969
Danforth Kent Fellow, 1975
Ellis endowed professorship in the liberal arts, Middlebury College, 1992
Perkins award for excellence in teaching, Middlebury College, 1994
Benjamin F. Wissler endowed professorship in physics, Middlebury College, 2001
Election to Vermont Academy of Science and Engineering, 2003

Publications:

Author or co-author of 9 books and theses, 3 videotaped lecture courses, and 72 articles abstracts, or reviews in the areas of medical and plasma physics, solar energy engineering, electronic circuit design, observational astronomy, theoretical astrophysics, nuclear issues, and climate change.

Invited Lecturer for 70 meetings and colloquiums since 1988, and recipient of 22 research grants.

Research Interests:

The violently eruptive behavior of the sun's outer atmosphere (corona); global climate change

Teaching Interests:

Making science relevant to nonscientists and to students from all walks of academic life

DR. JUNRU WU (2001)

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South Burlington, VT 05403

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Email: Jun-ru.wu@uvm.edu

Website: www.uvm.edu/~jwu

Education: M.S. Physics, UCLA, December 1981
Ph.D. Experimental Physics, UCLA, 1985

Professional Experience:

1998-present	Chair, Department of Physics, University of Vermont
1996-present	Professor, Department of Physics, University of Vermont (primary position)
1996-present	Professor, Department of Mechanical Engineering, University of Vermont (secondary position)
1994 –1996	Associate Professor, Department of Mechanical Engineering, University of Vermont
1994-present	Consultant in Ultrasound Physics, Surgical Associates, University Health Center, University of Vermont
1993-1996	Associate Professor, Department of Physics, University of Vermont
1987-1993	Assistant Professor, Department of Physics, University of Vermont
1986-1987	Adjunct Assistant Professor and Research Associate, Department of Physics, UCLA
1985-1986	Lecturer and Post-doctoral Research Associate with Professors I. Rudnick and J. Wheatley, Department of Physics, UCLA
1983-1985	Research Assistant for Professor I. Rudnick, Department of Physics, UCLA
1980-1985	Teaching Assistant, Department of Physics, UCLA

Professional Affiliations and Activities:

IEEE, The Acoustic Society of America, American Institute of Ultrasound in Medicine

Honors and Awards:

Member of Sigma Xi Society
Outstanding Teaching Assistant Award, UCLA, 1983
National Scientific Progress Award (China), First Prize, 1986
Fellow, The Acoustical Society of America (1991-present)
Fellow, The American Institute of Ultrasound in Medicine, 1996-present
Listed in: Who's Who Among Asian Americans, 1994-1995
American Men and Women of Science, 1995
Who's Who in Science and Engineering, 1996-1997
Outstanding People of the 20th Century, 1999
Who's Who in the World, 2000
International Who's Who of Professionals, 2000

Who's Who Among America's Teachers, 2002, 2003
Member, The Vermont Academy of Science and Engineering, 2001-present

Publications:

Author or co-author of 80 refereed papers; presenter for 75 conference papers and 55 colloquium talks

Patents:

Implant Debris Detection, July 2002; co-inventors: Eric Weissman, Elmer Dickens, Jr.

Research Interests:

Ultrasound and optics

Teaching Interests:

Taught various introductory university physics courses, classical mechanics, electromagnetism, and quantum mechanics

MR. TSUKASA YOSHINAKA (2005)

Name: Tsukasa Yoshinaka

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Quechee, VT 05059

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F: 802-296-2325

Email: ty@conceptsnrec.com

Education:

B. Sc., Aeronautical Engrg	Kyoto University, Kyoto, Japan, 1964
M. Eng., Mechanical Engrg	Sir George Williams (now, Concordia) University, Montreal, Quebec, Canada, 1970

Professional Experience:

1995 – Present	Concepts NREC, Wilder, VT
1967 – 1994	Pratt & Whitney Canada, Longueuil, Quebec, Canada
1964 – 1967	Fuji Electric-Machinery Co., Ltd., Kawasaki, Japan

Professional Affiliations and Activities:

Member, Order of Engineers of Quebec
Member, Gas Turbine Society of Japan
Member, Vermont Academy of Science and Engineering

Honors and Awards:

United Technology Corporation, President's Special Award for the design and performance demonstration of an advanced, transonic axial compressor, 1979

Gas Turbine Society of Japan Award for the excellent paper on compressor surge mechanism, 1982

United Technology Corporation, President Special Award for the design and performance demonstration of a transonic, single stage centrifugal compressor of 15:1 pressure ratio, 1985

United Technology Corporation, Technical Education and Training Advisory Council Award, for the delivery of high quality education and training to UTC engineers, 1994

Publications:

Author or co-author of four books (two in English and two in Japanese) on gas turbine technology and centrifugal compressor design, 12 conference papers and reports, and several invited lectures on various topics in turbomachinery technology in USA (including US Army, Aviation Applied Technology Directorate, Ft. Eustis, VA), Canada (including McGill University), Japan (including Honda Motor Corporation and Kyoto University), and China.