

JUNE R. APRILLE, Ph.D.

**Provost
Washington and Lee University
Lexington VA 24450**

Telephone: (540) 458 8418

email: japrille@wlu.edu

EDUCATION AND PROFESSIONAL TRAINING:

1967	B.S. Washington State University, in Zoology
1969	M.S. University of Illinois, Urbana-Champaign, in Physiology
1970	Ph.D. University of Illinois, Urbana-Champaign in Physiology
1970-72	Postdoctoral Fellowships (NIH and American Association of University Women), in Cellular Physiology at University of Illinois, Urbana-Champaign
1972-74	NIH Postdoctoral Research Fellow in Developmental Medicine, Department of Pediatrics, Harvard Medical School (at Massachusetts General Hospital)

PROFESSIONAL HISTORY

CURRENT POSITION: WASHINGTON AND LEE UNIVERSITY
Since 2007 Provost, Professor of Biology

PREVIOUS APPOINTMENTS:

UNIVERSITY OF RICHMOND (Richmond, VA)

2001 - 2007 Provost and Vice President for Academic Affairs, Professor of Biology,

TUFTS UNIVERSITY (Medford, MA)

1999-2001	Vice Provost
1996-99	Associate Provost for Academic Affairs
1987-2001	Henry Bromfield Pearson Professor of Natural Sciences
1986-2001	Professor, Department of Biology
1982-85	Chair, Department of Biology
1980-86	Associate Professor, Department of Biology
1977-80	Assistant Professor, Department of Biology
1986-2001	Adjunct Professor of Pediatrics, School of Medicine
1978-86	Assistant Clinical Professor of Pediatrics, School of Medicine

OTHER APPOINTMENTS:

1977-2001	Lecturer in Pediatrics (Biochemistry) Harvard Medical School, Consultant Biochemist (Children's Service), Massachusetts General Hospital, Boston
1974-77	Associate in Pediatrics (Biochemistry), Harvard Medical School; Assistant Biochemist (Children's Service), Massachusetts General Hospital; Assistant Biochemist (Pediatrics), Shriner's Burns Institute
1973-74	Lecturer (part time), Department of Biology, Merrimack College
1971-72	Research Associate, and Lecturer, Department of Physiology, University of Illinois

RESEARCH INTERESTS

General: Mitochondrial physiology in normal, adaptive, and pathological states.
Special Areas: Human mitochondrial disorders. Mitochondrial adenine nucleotide transport (ATP-Mg/Pi carrier). Role of mitochondria in metabolic regulation and cell death. Cancer chemotherapies and other drug interaction with mitochondria.
Currently: Role of mitochondria in firefly flash control.

ADMINISTRATIVE EXPERIENCE

Current: PROVOST, WASHINGTON AND LEE UNIVERSITY

Chief academic officer and senior vice president, responsible for the academic vision and mission of the university.

Professional direct reports:

Deans of three schools
 Law
 The College (Arts and Sciences)
 Williams School of Commerce, Economics, and Politics
Dean of Admissions and Financial Aid
University Registrar
Director of International Education
Associate provost for Institutional Effectiveness;
Director of Athletics
Chief Technology Officer
Career Services
University Librarian
Heads of several interdisciplinary programs and centers

Previous Administrative Positions,

Provost and Vice President for Academic Affairs, University of Richmond, 2001-2007

Chief Academic Officer, responsible for the academic mission of the university and the academic objectives of the university's strategic plan.

Professional direct reports:

Deans of five schools	Associate Provost
Arts and Sciences	Director of Institutional Research
Business	Registrar
Leadership Studies	Director of Financial Aid
Law	Director, Common Ground (diversity)
Continuing Studies	Director, Richmond Research Institute
Dean of Admission	Director, Center for Civic Engagement
Dean of International Education	

Vice Provost, 1999-2001 and Associate Provost 1996-1999, Tufts University:

Responsible for *de novo* development and management of several cross-school, interdisciplinary theme initiatives:

- Tufts Institute of the Environment
- Tufts University Institute on Healthy Aging
- Tufts University Center for Children
- University Committee for a Bioethics Institute
- University Coordinating Committee for Genetics
- University Resource Center for Geographic Information Systems
- University Africa Focus Group

Academic oversight of the following University operations/groups:

- University Committee on Teaching and Faculty Development
- Information Technology Council and its Academic Affairs Subcommittee
- Development of University Policies (Information Technology Eligibility and Responsible Use; E-mail; Fair Use; Licensing of Electronic Resources; Rights and Responsibilities with Respect to Intellectual Property)
- University Library Council
- University Research Council
- Graduate Programs Council
- Postdoctoral Student Status and Benefits

HONORS

Univ. of Illinois (Urbana-Champaign), 2003 Distinguished Alumni Award for professional achievement, Dept. of Integrative and Molecular Physiology
Tufts University Outstanding Faculty Member, 2002
Phi Beta Kappa
Phi Kappa Phi
Sigma Xi

CURRENT MEMBERSHIPS

American Society for Biochemistry and Molecular Biology
American Association of University Women
Biophysical Society, Bioenergetics subgroup

OTHER PROFESSIONAL ACTIVITIES (selected; * denotes current)

Member AAC&U Virginia Task Force for Liberal Education and America's Promise (LEAP) Initiative (2006)*

Accreditation Team for New England Colleges and Schools review of Brandeis University (2006)*

Howard Hughes Medical Institute, grant review panels for Undergraduate Science Education Initiatives (1993, 1996, 2000, and 2008 series), and for Biomedical Institutions Outreach Initiative (1994).

National Institutes of Health Physical Biochemistry Study Section (1988-1991)

Editorial Board, Journal Bioenergetics and Biomembranes (1991-present)*

Editorial Board, Archives of Pharmacal Research (1995 -present)*

National Research Council/National Academy Science Committee on Lab Animal Resources (1986-1992)

Scientific Advisory Board, National Reye's Syndrome Foundation (since 1978)*

Ad hoc manuscript reviewer for numerous journals; recent examples: *FEBS Letts*, *J. Biol. Chem*, *Biochimica Biophysica Acta*, *Amer J. Physiolog*, *Integrative and Comparative Biol.*

RESEARCH GRANTS AWARDS (only direct costs are listed)

1974-1977 NIH: "Hormones, Receptors, and Adenylate Cyclase: Effects of Burn Trauma." \$84,900 over three years (at the MGH).

1975-1976 Hood Foundation: "Development of Lipid Metabolism in Newborns." \$10,000 for one year (at the MGH).

1975-1978 NIH: "Development of Neonatal Thermoregulation." Approximately \$130,000 over three years (initiated at the MGH, transferred to Tufts with initial appointment in 1977).

1978-1981 NIH: Competing renewal of above project, approximately \$159,000 three years.

1977-1980 NIH: "Cellular Endocrine Responses: Effects of Burn Trauma." Approximately \$150,342 over three years (co-principal, initiated with two colleagues at MGH, administered through MGH after move to Tufts.)

1978-1980 Hood Foundation: "Pathogenesis of Reye's Syndrome." \$32,732 two years.

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- 1978-1979 National Reye's Syndrome Foundation: "Pathogenic Role for a Serum Factor in Reye's Syndrome." \$17,377 for 1 1/2 years.
- 1979-1982 NIH: "Pathogenic Role for a Serum Factor in Reye's Syndrome." \$160,000 three years.
- 1982-1985 NIH: Competing renewal for above project, approximately \$219,000 three years.
- 1980-1983 NIH: "Tufts University (Medford) Animal Resource Improvement." \$205,031 three years.
- 1983-1986 NIH: "Metabolic Adaptations of the Neonate to Extrauterine Life." \$229,246 three years.
- 1983-1984 Whiting Foundation Fellowship for sabbatic leave travel, \$3,968.
- 1983-1986 NIH: "Dietary Obesity: Behavioral and Metabolic Interactions" (Co-principal investigator with R.B. Kanarek), \$167,220 over three years.
- 1986-1987 Charlton Fund Research Award: "Tissue Specific Cytochrome Deficiencies," \$4760.
- 1986-1991 NIH: "Metabolic Adaptations of the Neonate to Extrauterine Life." \$558,293, five years
- 1988-1989 Hood Foundation: "Northeast Center for Analysis of Mitochondrial Diseases", (Dr. Susan Ernst is co-PI), \$29,958, one year.
- 1989-1994 Howard Hughes Medical Institute: "Undergraduate Bioscience Education Initiative", (Principal author and Program Director), \$1.5 million.
- 1989-1990 NIH: "Photoradiation therapy in cancer." (subcontract from PI Dr. A. Oseroff), \$16,500.
- 1990-1991 Hood Foundation: "Northeast Center for Analysis of Mitochondrial Diseases", (Dr. Susan Ernst is co-PI), \$15,300, one year.
- 1990-1991 Whiting Foundation: "Sabbatical Leave Travel", \$4430, one year.
- 1990-1991 NSF: "Development of mitochondria in newborn rat liver", \$54,364, one year.
- 1991-1992 SIDS Group at Children's Hospital: "Mitochondrial Disease as a Subset of SIDS", \$7,000.
- 1991-1992 Kresge Foundation: "Biology and Chemistry Undergraduate Equipment" \$353,120.
- 1992-1995 NIH: "Metabolic Adaptation of the Neonate to Extrauterine Life", \$248,445 three years.
- 1993-1994 Chronic Fatigue and Immune Dysfunction Syndrome Association: "Mitochondrial Abnormalities in Chronic Fatigue Syndrome", \$6,105, one year (Co-PI Dr. Ernst)
- 2000-2002 Eli Lilly Research foundation: "Differential Effects of Typical vs. Atypical Neuroleptics on Mitochondrial Function in vitro", \$112,574, 15 months (Co-PI Dr. Wm. Brennan)

TEACHING

Research Instruction:

At Tufts University 1977-2001, sponsored undergraduate, graduate, and postdoctoral research students (6 students completed M.S. Biology, 8 completed Ph.D. Biology; list provided on request.)

Courses Taught in Biology at Tufts University:

1977-1994 annually or as assigned, 3-4 courses per year:

Experiments in Biology Lab (team taught)

Cells and Organelles (team taught)

Cell Biology

Freshmen HHMI Reading Seminars

Advanced Topical Seminars

Additional courses as assigned

1995-2001 annually, while Vice Provost:

Cells and Organisms (team)

Cell Biology (spring)

INVITED SEMINARS, PANELS, PRESENTATIONS (Career list in chronological order)

November 28, 1977 "Perinatal regulation of cellular respiration" Tufts University Medical School, Department of Biochemistry, Boston, MA.

February 23, 1978 "Is Reye's Syndrome a mitochondrial illness?" Merrimack College, North Andover, MA.

January 12, 1978 "Reye's Syndrome: Patient serum affects mitochondrial function *in vitro*" Boston Floating Hospital, Department of Pediatrics, Boston, MA.

April 4, 1978 "Regulation of cellular respiration in mammalian neonates" University of Vermont, Cell Biology Graduate Program, Burlington, VT.

June 22-23, 1978 "Pathogenic role for a serum factor in Reye's Syndrome" Second International Symposium on Reye's Syndrome, Dalhousie University, Halifax, Nova Scotia.

November 14, 1978 "Postnatal development of respiratory function in liver mitochondria" Boston College, Department of Biology, Boston, MA.

June 30, 1979 "A serum factor in Reye's Syndrome" Conf. on Reye's Syndrome, University of Chicago, Chicago, IL.

July 1, 1979 "Pathogenesis of Reye's Syndrome" University of Cincinnati, Department of Pediatrics, Cincinnati, OH.

November 29, 1979 "A serum factor in Reye's Syndrome" Tufts University School of Medicine, Department of Biochemistry, Boston, MA.

January 4, 1980 "Postnatal development of respiratory and transport functions in rat liver mitochondria" Shriners' Burns Institute, Mass. General Hospital, Boston, MA.

January 17, 1980 "Postnatal development of respiratory and transport functions in rat liver mitochondria" Tufts University, Department of Biology, Medford, MA.

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March 20, 1980. "Biochemical abnormalities in Reye's Syndrome" Shriver Center, McLean Hospital, Belmont, MA.

March 17, 1980 "Postnatal development of respiratory and transport functions in rat liver mitochondria" Yale University, School of Medicine, Department of Perinatology, New Haven, CT.

May 16, 1980 "Development of the Endocrine System" Harvard Medical School, Mass. General Hospital. Keynote speaker for postgraduate course in Pediatric Endocrinology, Boston, MA.

October, 1981 "Fatal cytochrome deficiency in an infant" Mass. General Hospital Neurology Grand Rounds, Boston, MA.

October, 1981 "Illness related to mitochondrial function" Merrimack College Seminar, North Andover, MA.

December, 1981 "Abnormal mitochondrial function in childhood illness" Washington University School of Medicine Pediatric Grand Rounds, St. Louis, MO.

December, 1981 "Liver mitochondrial development in the mammalian neonate" Washington University School of Medicine, St. Louis, MO.

INVITED SEMINARS, PANELS, PRESENTATIONS (continued)

February, 1982 "Illness related to abnormal mitochondrial function" Tufts University, Biology Department, Medford, MA.

March, 1982. "How we get here from there" Experimental College Panel Discussion, Tufts University, Medford, MA.

April, 1982 "Childhood illness related to abnormal mitochondrial function" University of Vermont, Cell Biology Program, Burlington, VT.

August 30, 1983 "Disorders of mitochondrial metabolism" Tufts New England Medical Center, Department of Neurology, Boston, MA.

September 13, 1983 "Disorders of fatty acid oxidation" Mass. General Hospital Pediatric Endocrine Grand Rounds, Boston, MA.

December 14, 1983 "Disorders of mitochondrial metabolism" Pediatric Grand Rounds, SUNY Medical School, Stony Brook, NY.

February 17, 1984 "Organ specific cytochrome deficiencies" Columbia University, Department of Neurology, NY.

March 20, 1984 "Human diseases of mitochondrial metabolism" University of Florence, Department of Neurology, Florence, Italy.

April 12, 1984 Invited discussant in the Child Neurology Session of the American Academy of Neurology Annual Meeting. Boston, MA.

May 11, 1984 "Physiological significance of a new adenine nucleotide transporter in mitochondria" Brown University, Department of Physiology, Providence, RI.

May 17, 1984. "Physiological significance of a new adenine nucleotide transporter in mitochondria" Columbia University College of Physicians and Surgeons, Department of Neurology, NYC.

June 23, 1984 Discussant for National Reye's Syndrome Foundation panel on "Mitochondrial injury in

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Reye's Syndrome" Columbus, OH.

April 18, 1985. "Physiological significance of a new adenine nucleotide transporter in liver mitochondria"
Tufts University School of Medicine, Department of Biochemistry, Boston, MA.

April 19, 1985 "Does aspirin ingestion provoke Reye's Syndrome?" Tufts University Biology Department,
Medford, MA.

June 28, 1985 "Salicylates and mitochondrial metabolism" National Reye's Syndrome Foundation,
Annual Meeting, Uniondale, NY.

August 18, 1985 "Does aspirin provoke Reye's Syndrome?" Grand Rounds, Tufts University School of
Medicine, Department of Pediatrics, Boston, MA.

September 6, 1985 "Tissue specific cytochrome deficiencies in human infants," Symposium on
Achievements and Perspectives in Mitochondrial Research, Bari, Italy.

January 21, 1986 "Physiological significance of a new adenine nucleotide transport mechanism in liver
mitochondria" Joint in Depts. Pediatrics and Molecular Biophysics, Yale Univ., New Haven, CT.

February 4, 1986 "Diagnosis and biochemical basis of mitochondrial cytochrome deficiencies" Hayward
Memorial Lecture in Pediatrics (Genetics), Tulane Univ. Medical School, New Orleans, LA.

INVITED SEMINARS, PANELS, PRESENTATIONS (Continued)

March 29, 1986 "Advice to Young Scientists" Keynote speaker, 14th New England Regional Biology
Conference, Medford, MA.

May 29, 1986 "A premature infant with fatal cytochrome oxidase deficiency" Pediatric Grand Rounds, St.
Margaret's Hospital, Quincy, MA.

October 7, 1986 "Aspirin and Reye's Syndrome" Pediatric Grand Rounds St. Elizabeth's Hospital,
Boston, MA.

October 28, 1986 "Does aspirin provoke Reye's Syndrome?" Dept. Biology, Merrimack College, No.
Andover, MA.

November 11-12, 1986 "Metabolic and physiological consequences of mitochondrial dysfunction in
Reye's Syndrome" Round Table on Reye's Syndrome, Royal Society of Medicine, London.

January 29, 1987 "Tissue specific mitochondrial cytochrome deficiencies in human infants" Department
of Anatomy and Cell Biology, Tufts Univ. School of Medicine, Boston.

March 13, 1987 "Physiological significance of a new adenine nucleotide transport mechanism in rat liver
mitochondria" Department of Biochemistry, Emory University, Atlanta, GA.

April 29, 1987 "Tissue specific mitochondrial cytochrome deficiencies" Genetics Grand Rounds,
Children's Hospital, Boston, MA.

June 4-6, 1987 "Physiological significance of a new adenine nucleotide transport mechanism in rat
mitochondria" International Conference on Integration of Mitochondrial Function, Chapel Hill, NC.

July 10, 1987 "A new adenine nucleotide transport mechanism in liver mitochondria" Department of
Physiology, Emory University Medical School, Atlanta, GA.

October 17, 1987 "Biology within Tufts: Investigating Metabolic Diseases of Children", Seminar for
Parents' Weekend at Tufts.

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December 11, 1987 "Mitochondrial cytochrome deficiencies in infants" Pediatric Neurology, Tufts New England Medical Center, Boston, MA.

April 4, 1988 "The Power of Life" Henry Bromfield Pearson Professor Inaugural Lecture at Tufts University, Medford, MA.

April 18, 1988 "Physiological significance of a new adenine nucleotide transport mechanism in mitochondria" Geisinger Institute, Danville, PA.

September 16, 1988 "Physiological significance of a new adenine nucleotide transport mechanism in mitochondria" Department of Physiology-Biophysics, University of Illinois, Champaign-Urbana, IL.

December 15-16, 1988 "Perinatal development of liver mitochondrial function" Perinatal Biochemical Group, Spanish Biochemical Society, Madrid, Spain.

February 6, 1989 "Physiological significance of mitochondrial development in newborns" Department of Biology, Syracuse University, Syracuse, NY.

February 16, 1989 "Physiology of mitochondrial development in newborns" Department of Genetics and Cell Biology, University of Minnesota, St. Paul, MN.

March 8, 1989 "Biochemical and Molecular Analysis of Mitochondrial Disorders" Pediatric Grand Rounds, Tufts New England Medical Center, Boston, MA.

INVITED SEMINARS, PANELS, PRESENTATIONS (continued)

June 12, 1989 "Biochemical and Molecular Analysis of Mitochondrial Pathologies" Pediatric Grand Rounds, Montreal Children's Hospital, Montreal, Quebec.

July 28, 1989 "Mitochondrial Pathologies" Session Leader, Gordon Research Conference on Bioenergetics, Plymouth, NH.

January 16, 1990 "Physiological significance of the ATP-Mg/P_i carrier in liver mitochondria" Tufts University School of Medicine, Department of Physiology, Boston, MA

February 20, 1990 "Postnatal regulation of metabolic function in liver mitochondria", Invited address Graduate Women in Science, Amer. Assoc. Adv. Science, New Orleans, LA

April 24, 1990 "Metabolic regulation by subcellular compartmentation of adenine nucleotides" Dept. Biochemistry, U. Tenn., Memphis, TN

November 2, 1990 "Women in Science: A Biologist's Experience" Colloquia in honor of Presidential Inauguration of Dr Robert Rotberg at Lafayette College, Easton, PA

April 15, 1991 "Physiological role of the ATP-Mg/P_i carrier in liver mitochondria" Dept. Physiology, Louisiana State University Medical School, Shreveport, LA

May 6, 1991 "Mitochondrial Structure, Function, Genetics: A Review" Metabolism and Genetics Unit, Children's Hospital, Boston, MA

May 13, 1991 "Biochemical and Molecular Analysis of Mitochondrial Diseases" Metabolism and Genetics Unit, Children's Hospital, Boston, MA

July 10, 1991 "Mitochondrial Pathologies" Session Leader, Gordon Research Conference on Bioenergetics, Plymouth, NH.

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March 24, 1992 "Mitochondrial Cytopathies and Mitochondrial DNA Mutations" Helen S. Jones Lecture in Pediatrics, Grand Rounds, Massachusetts General Hospital, Boston, MA.

April 15, 1992 "Mitochondrial Cytopathies and Mitochondrial DNA Mutations" Pediatric Grand Rounds, Tufts New England Medical Center, Boston, MA.

June 20, 1992 "Aspirin and Reye's Syndrome: What's the Connection?" Keynote speaker, National Reye's Syndrome Fdn. Annual Meeting, Philadelphia, PA.

October 23, 1992 "Mitochondrial Cytopathies and Mitochondrial DNA Mutations" Shriver Center at McLean Hospital, Harvard Medical School, Boston, MA.

January 14, 1993 "Role of Mitochondria in Metabolic Adaptation to Newborn Life" Department of Biology, Utah State University, Logan, Utah.

March 21, 1993 "Role of Mitochondria in Metabolic Adaptation to Newborn Life" Department of Biology, Colorado State University, Ft. Collins, Colorado.

June 18-19, 1993 "Role of endocrine factors and mitochondrial dysfunction in Huntington's Disease". Hereditary Disease Foundation Roundtable, University of Pennsylvania, Philadelphia.

July 7, 1993 "Calcium and adenine nucleotide regulation of intramitochondrial protein synthesis". Bioenergetics Gordon Conference, Holderness, NH.

August 5, 1993 "Mg²⁺ Transport via the Mitochondrial ATP-Mg/P_i Carrier" International Union of Physiological Sciences, Glasgow, Scotland.

INVITED SEMINARS, PANELS, PRESENTATIONS (continued)

October 20, 1993 "Genetic basis of mitochondrial disorders" Program in Genetic Counseling, Brandeis University, Waltham, MA.

April 17, 1994 "Life is Energy" Phi Beta Kappa Lecture, Tufts University, Medford, MA.

December 14, 1994 "Physiological Regulation of Mitochondrial Protein Synthesis" Boston Biomedical Research Institute, Boston, MA.

March 7, 1995 "Physiological Regulation of Gene Expression in Liver Mitochondria" College of Medicine, Department of Physiology, State University of New York at Syracuse

May 10, 1995 "The Power of Life" Public Lecture for the Dudley Wright Center for Teaching, Tufts Univ.

July 4-9, 1995 "Mitochondrial Biology" Session Leader, Gordon Conf. on Bioenergetics, Holderness, NH.

October 13, 1995 "Energy for Cellular Life" Merrimack College, Department of Biology, No.Andover, MA.

November 1, 1996 "The Power of Life" Museum of Science (Boston), Public Lecture Series.

November 7, 1996 "Genetic basis of mitochondrial disorders" Program in Genetic Counseling, Brandeis University, Waltham, MA.

January 26, 2000 "Are antipsychotic drugs toxic to mitochondrial bioenergetic function?", Dept Pharmacology and Exptl. Therapeutics, Tufts Univ. School Medicine, Boston MA

October 4, 2000 "The Lure of Academic life", keynote address for Student Research Day, Tufts U. School of Veterinary Medicine, Grafton MA.

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April 5-9, 2002 "Mechanism of firefly flash control: Nitric oxide inhibition of oxygen consumption in lantern mitochondria is reversed by light". 12th Intl. Symposium on Bioluminescence & Chemiluminescence, Univ. Cambridge, England.

August 24-28, 2002 "Role of Nitric Oxide and Mitochondria in Control of Firefly Flash" Invited speaker, American Physiologists Society annual meeting, San Diego CA.

January 4-8, 2003 "Nitric Oxide and Mitochondria in Control of Firefly Flashing" Symposium on Firefly Flash Communication, Society for Integrative and Comparative Biology, Toronto Canada.

September 19, 2003 "The Lure of Academic Life" Address as Distinguished Alumni in Integrative and Molecular Physiology at the University of Illinois, Urbana-Champaign.

February 18, 2004 Session Co-chair "Mitochondria and Apoptosis"; and presented paper "The Mitochondrial ATP-MG/Pi Carrier Modulates Susceptibility to Permeability Transition by Regulating Mitochondrial Adenine Nucleotide Content ".Biophysical Society Annual Meeting, Baltimore MD.

March 9, 2006 "Mechanism of Firefly Flash Control", Dept. Biology, Salisbury State Univ., MD.

October 21, 2006 "Metaphor for a Presidential Inauguration", Address for inauguration of President Kenneth Ruscio at Washington and Lee University, Lexington, VA.

September 5, 2008: "New Year Resolutions", Fall Convocation Address, Washington. and Lee University, Lexington, VA.

PUBLICATIONS (Career list of refereed or edited papers and chapters in chronological order. Does not include published meeting abstracts for posters and presentations (numbering over 65) which can be provided on request.)

1. **Aprille, J.R.** and Buetow, D.E. A method for isolating nuclei from *E. gracilis*. Arch. Microbiol. 89:355-362, 1973.
2. **Aprille, J.R.** and Buetow, D.E. Incorporation of labelled amino acids by nuclei isolated from *E. gracilis*. Arch. Microbiol. 97:195-201, 1974.
3. Barr, L., Connor, J.A., Dewey, M.M., **Aprille, J.R.** and Johnston, P.V. The isolation of plasma membrane from frog cardiac muscle cells. Biochim. Biophys. Acta 345:336-347, 1974.
4. **Aprille, J.R.**, Lefkowitz, R.J. and Warshaw, J.B. ³H-norepinephrine binding and lipolysis by isolated fat cells. Biochim. Biophys. Acta 373:502-513, 1974.
5. **Aprille, J.R.** and Malamud, D.F. Catechol-o-methyl transferase in mouse liver membranes. Biochem. Biophys. Res. Commun. 64:1293-1302, 1975.
6. **Aprille, J.R.** and Rulfs, J. A convenient neonatal model for developmental studies requiring artificial diets. Biol. Neonate 30:109-115, 1976.
7. **Aprille, J.R.** and Rulfs, J. Dietary lipid and postnatal development I. A model for neonatal studies requiring high and low fat diets from birth. Pediatric Res. 10:978-981, 1976.
8. **Aprille, J.R.** Dietary lipid and postnatal development II. Palmitoyl CoA oxidation in heart and liver. Pediatric Res. 10:982-985, 1976.
9. Wu, A-L., Sicard, R.E., **Aprille, J.R.** and Walker, W.A. The immunologic control mechanism against cholera toxin. II. Stimulation of adenylate cyclase without fluid secretion. Biochem. Biophys. Res. Commun. 72:1414-1422, 1976.
10. **Aprille, J.R.**, Hom, J.A. and Rulfs, J. Liver and skeletal muscle mitochondrial function following burn injury. J. Trauma 17:279-288, 1977.
11. **Aprille, J.R.** Reye's Syndrome: Patient serum alters mitochondrial function and morphology *in vitro*. Science 197:908-910, 1977.
12. Sicard, R.E. and **Aprille, J.R.** Adenylate cyclase and cyclic nucleotide phosphodiesterases in the developing rat liver. Biochim. Biophys. Acta 500:235-245, 1977.
13. Malamud, D.F., DiRusso, C.C. and **Aprille, J.R.** Multiple forms of brain adenylate cyclase: Stimulation by Mn⁺⁺. Biochim. Biophys. Acta 485:243-247, 1977.
14. Asimakis, G.K. and **Aprille, J.R.** Reye's Syndrome: The effect of patient serum on mitochondrial respiration *in vitro*. Biochem. Biophys. Res. Commun. 79:1122-1129, 1977.
15. **Aprille, J.R.** and Asimakis, G.K. A Pathogenic Role for a Serum Factor in Reye's Syndrome. In Reye's Syndrome II (Second Int'l Symposium) ed. by J. Crocker, 1979, pp. 361-384. Grune and Stratton, N.Y.
16. **Aprille, J.R.**, Aikawa, N., Bell, T., Bode, H. and Malamud, D. Adenylate cyclase after burn injury: resistance to desensitization by catecholamines. Journal of Trauma 19:812-818, 1979.
17. **Aprille, J.R.** A serum factor in Reye's Syndrome. J. Nat'l Reye's Syndrome Fdn. 1:37-52, 1980.

PUBLICATIONS (continued)

18. **Aprille, J.R.** and Asimakis, G.K. Postnatal development of rat liver mitochondria: State 3 respiration, adenine nucleotide translocase activity, and net accumulation of adenine nucleotides. *Archiv. Biochem. Biophys.* 201:564-575, 1980.
19. Asimakis, G.K. and **Aprille, J.R.** *In vitro* alteration of the size of the mitochondrial adenine nucleotide pool: Correlation with respiratory functions. *Archiv. Biochem. Biophys.* 203:307-316, 1980.
20. **Aprille, J.R.**, Austin, J., Costello, C. and Royal, N. Identification of the Reye's Syndrome serum factor. *Biochem. Biophys. Res. Comm.* 94:381-389, 1980.
21. Asimakis, G.K. and **Aprille, J.R.** Net uptake of adenine nucleotides by isolated rat liver mitochondria. *FEBS Letters* 117:156-160, 1980.
22. **Aprille, J.R.** Net uptake of adenine nucleotides by newborn rat liver mitochondria. *Archiv. Biochem. Biophys.* 207:157-164, 1981.
23. **Aprille, J.R.**, Yaswen, P. and Rulfs, J. Acute postnatal regulation of pyruvate carboxylase activity of compartmentation of mitochondrial adenine nucleotides. *Biochim. Biophys. Acta* 675:143-147, 1981.
24. **Aprille, J.R.** and Austin, J. Regulation of the intramitochondrial ATP+ADP+AMP pool size. *Archiv. Biochem. Biophys.* 212:689-699, 1981.
25. **Aprille, J.R.** Reply to: "Reye Syndrome: serum-induced alterations in brain mitochondrial function are blocked by fatty-acid free albumin" (Letter). *Neurology* 31:230-232, 1981.
26. **Aprille, J.R.** Salicylate has several effects on mitochondrial function. *J. Natl. Reye's Syndrome Fdn.* 2:56-60, 1981.
27. Mitsumoto, H., **Aprille, J.R.**, Wray, S.H., Nemni, R. and Bradley, W.G. An abnormality of cytochrome aa₃ in progressive external ophthalmoplegia (CPEO) with morphologic mitochondrial abnormalities. *Neurology* 31:58-75, 1981.
28. Goldstein, F.G. and **Aprille, J.R.** Citrulline synthesis: Regulation by alterations in the total mitochondrial adenine nucleotide content. *Archiv. Biochem. Biophys.* 213:7-13, 1982.
29. Rulfs, J. and **Aprille, J.R.** Adenine nucleotide pool size, adenine nucleotide translocase activity, and respiratory activity in newborn rabbit liver mitochondria. *Biochim. Biophys. Acta* 681:300-304, 1982.
30. **Aprille, J.R.**, Nosek, M.T. and Brennan, W.A., Jr. Adenine nucleotide content of liver mitochondria increases after glucagon treatment of rats or isolated hepatocytes. *Biochem. Biophys. Res. Commun.* 108:834-839, 1982.
31. Mitsumoto, H., **Aprille, J.R.**, Wray, S.H., Nemni, R. and Bradley, W.G. Chronic progressive external ophthalmoplegia (CPEO): Clinical, morphological, and biochemical studies. *Neurology* 33:452-461, 1983.
32. Austin, J. and **Aprille, J.R.** Net adenine nucleotide transport in rat liver mitochondria is affected by both the matrix and external ATP/ADP ratios. *Archiv. Biochem. Biophys.* 222:321-325, 1983.

PUBLICATIONS (continued)

33. Boustany, R.N., **Aprille, J.R.**, Halperin, J., Levy, H., and DeLong, G.R. Mitochondrial cytochrome deficiency presenting as a myopathy with hypotonia, external ophthalmoplegia, and lactic acidosis in an infant and as fatal hepatopathy in a second cousin. *Annals of Neurology* 14:462-470, 1983.
34. **Aprille, J.R.**, Partin, J.S., and Partin, J.C. Serum uric acid in Reye's Syndrome. *J. Nat'l Reye's Syndrome Fdn.* 4:9-15, 1983.
35. Brennan, W.A., Jr. and **Aprille, J.R.** Regulation of hepatic gluconeogenesis by rapid compartmentation of mitochondrial adenine nucleotides in the newborn rabbit. *Comparative Biochem. and Physiol.* 77B:35-39, 1984.
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