

CURRICULUM VITAE

January, 2019

Karl John Aufderheide

Born: August 17, 1948, Minneapolis, MN

Married: September 6, 1969

Spouse: Cheryl Wrolson Aufderheide

Child: Karen Ruth Sysak (née Aufderheide), born September 23, 1984

Education and Professional Experience

B.S., <i>summa cum laude</i>	Microbiology	University of Minnesota	June 1970
M.S.	Cell Biology	University of Minnesota	July 1972
Ph.D.	Cell Biology	University of Minnesota	Dec. 1974
Major Advisor: Dr. Ross Johnson			
Postdoctoral Study	Indiana University		Nov. 1974–Aug. 1977
Sponsor: Dr. Tracy Sonneborn			
Postdoctoral/Instructor	University of Iowa		Aug. 1977–Aug. 1979
Sponsor: Dr. Joseph Frankel			
Assistant Professor	Texas A&M University		Aug. 1979–Aug. 1986
Completion of Woods Hole course, “Optical Microscopy & Imaging in the Biomedical Sciences,” December, 1983			
Senior Scientist, Institute of Developmental Biology, 1983–1985			
Acting Director, Freshman Biology Program, Summer, 1983			
Visiting Scholar	Indiana University		Aug.–Dec. 1986
Working in the laboratory of Dr. John Preer			
Associate Professor	Texas A&M University		Sept. 1986–Aug. 2018
Full Member, Graduate Faculty 1981–			
Associate Member, Genetics Faculty 1981–2000			
Visiting Scholar	Vanderbilt University		Aug.–Dec. 2007
Working in the laboratory of Dr. Christopher Janetopoulos			
Emeritus	Texas A&M University		Sept. 2018–

Professional Interests

Cell/Developmental Biology. Developmental Genetics. Intracellular differentiation of eukaryotes, especially ciliates. General interests in: intracellular pattern formation and morphogenesis; molecular aspects of gene expression in ciliate protozoa; development of organelles, including intracellular motility and organelle localization. Specific interests in: signal transduction, regulation of cytoskeletal organization, and motility in the social amoeba *Dictyostelium*; organization, patterning and morphogenesis of surface-related cytoskeletal and membranous structures in ciliates, especially *Paramecium*, and *Chlamydomonas*; applications of laser optical force trap technology to developmental problems in *Paramecium tetraurelia* and *Tetrahymena thermophila*; molecular aspects of serotype gene expression in *P. tetraurelia*; development of exocytotic organelles (the trichocysts) in *P. tetraurelia*.

General approach involves use of classical and modern light and electron microscopic techniques, integrated with genetic, molecular, mechanical or physiological manipulations of the cells.

Fellowships, Grants and Awards

Bausch & Lomb Honorary Science Award, 1966.

National Science Foundation Undergraduate Research Fellow, 1968.

George T. Walker Award for undergraduate research achievement, Minnesota Chapter of Sigma Xi, 1970.

National Science Foundation Graduate Traineeship, 1970–1971.

National Science Foundation Predoctoral Fellowship, 1971–1974.

Sigma Xi Grant-in-Aid of research, \$400, 1972.

NIH National Research Service Award, “Intracellular Motility in *Paramecium aurelia*,” #GM05331, \$26,400, 1975–1977.

Texas A&M “Minigrants:” \$300, 1980; \$250, 1981; \$450, 1984; \$1,500, 1997.

NIH Biomedical Research Support Grant, “The Nuclear or Cytoplasmic Basis of Clonal Senility in *Paramecium tetraurelia*,” \$3,375, 1980–1981.

NIH Biomedical Research Support Grant, “A Genetic Analysis of Trichocyst Development in *Paramecium tetraurelia*,” \$3,500 plus \$2,800 matching, 1984–1985.

NIH Institute of Aging Research Grant, “Nucleo-cytoplasmic Interactions in Aged Paramecia,” #AG02657, \$77,679, 1981–1983; competitive renewal, \$81,797, 1983–1986.

NIH Institute of General Medical Sciences Research Grant, “Genetic Analysis of Trichocyst Development in *Paramecium*,” #GM34681, \$189,684, 1985–1989.

NASA Research Grant, “Conceptual Design for a Food Production, Water and Waste Processing, and Gas Regeneration Module,” Co-Investigator in Space Research Center, Texas Engineering Experiment Station, \$86,000, 1986–1987.

Texas A&M University Office of International Coordination Enhancement Grant, \$500, 1987.

Texas A&M University Association of Former Students Teaching Excellence Award, College Level, 1989.

NSF Grant, “Ninth Southwestern Developmental Biology Conference, March 21–23, 1991,” #DCB-9112864, \$2,000, 1991.

Texas A&M University Interdisciplinary Research Initiatives Grant, “Characterization of a Nuclear Determining Region and Nuclear Determination,” #IRI 94-05, Co-PI with Edward Fry, \$48,024, 1994–1995.

Member, NIH Special Study Section 2 (SBIR), March, 1995.

Biology Department Instructional Enhancement/Equipment Fee Award, “Portable Laptop Computer for Classroom Imaging,” \$2,450, April, 2002.

Faculty Development Leave (sabbatical), Fall 2007, Department of Biological Sciences, Vanderbilt University.

Inaugural awardee, Dr. Karl J. Aufderheide Excellence in Teaching Award, Department of Biology, Texas A&M University, May 2018.

Scientific Presentations

American Society for Cell Biology, Miami, FL, August, 1972.

Ciliate Genetics & Cell Biology Conference, University of Wisconsin, Madison, WI, July, 1976.

Fifth International Congress of Protozoology, New York, NY, June, 1977.

Society of Protozoologists, University of Georgia, Athens, GA, August, 1978.

Midwest Society of Protozoologists, Ball State University, Muncie, IN, March, 1979.

Ciliate Genetics & Cell Biology Conference, University of California, Santa Barbara, CA, July, 1979.

Society of Protozoologists, Georgetown University, Washington, DC, June, 1980.

Society of Protozoologists, Dallas, TX, December, 1981.

Participant in symposium, “The Teaching of Protozoology,” Dallas, 1981.

Ciliate Genetics & Cell Biology Conference, University of Wyoming, Laramie, WY, July, 1982.

Society of Protozoologists, San Francisco State University, San Francisco, CA, August, 1982.
Organizer of workshop, "The Electron Microscopy of Protozoa," San Francisco, CA, August, 1982.

Invited participant, 1983 Gordon Conference on the Biology of Aging, Plymouth, NH, August, 1983.

Participant, short course, "Light Microscopy and Imaging in the Biomedical Sciences," Marine Biological Laboratories, Woods Hole, MA, December, 1983.

Southwest Society for Developmental Biology, Texas A&M University, College Station, TX, March, 1984.

Invited participant, 1984 Cold Spring Harbor International Ciliate Molecular Genetics Meeting, May, 1984.

Society of Protozoologists, University of Georgia, Athens, GA, August, 1984.

Invited participant, Workshop on Lower Eukaryotes as Model Systems for Cellular and Molecular Biology, Gulbenkian Institute of Science, Oeiras, Portugal, August, 1984.

Invited participant, 1985 Gordon Conference on the Biology of Aging, Oxnard, CA, February 1985.

Southwest Society for Developmental Biology, Texas Woman's University, Denton, TX, April, 1985.

Southwest Society for Developmental Biology, University of Houston, Houston, TX, April, 1986.

Society of Protozoologists, University of Rhode Island, Kingston, RI, June, 1986.

Southwest Society for Developmental Biology, University of Oklahoma, Norman, OK, March, 1987.

Society of Protozoologists, University of Illinois, Champaign-Urbana, IL, July, 1987.
Organizer of workshop, "Light Microscopy of Protozoa," Champaign-Urbana, IL, 1987.

Invited speaker, Southwest Society for Developmental Biology, University of Texas, Port Aransas, TX, February, 1988.

Southwest Society for Developmental Biology, Texas Christian University, Ft. Worth, TX, March, 1989.

Society of Protozoologists (Two presentations and Chair of the Morphogenesis Platform Session), University of Maryland, College Park, MD, June, 1990.

Southwestern Society for Developmental Biology (Co-Organizer of the Conference and one presentation), Texas A&M University, College Station, TX, March, 1991.

Southwestern Society for Developmental Biology, University of New Mexico, Albuquerque, NM, May, 1992.

Lost Pines Conference, Smithville, TX, October 1996.

Invited and featured speaker, Mini-Symposium: "Opportunities for Research Involving Transmissible Spongiform Encephalopathies," College of Veterinary Medicine, Texas A&M University, College Station, TX, December, 1996.

International Conference on *Paramecium* (two presentations), University of Hawaii, Honolulu, HI, March, 2001.

Invited participant, McGraw-Hill Brooker textbook (Genetics) Focus Group Symposium, Dubuque, IA, October, 2004.

Scientific Seminars

University of Denver, CO, February, 1978.

Centre de Génétique Moléculaire, Centre Nationale de le Recherche Scientifique, Gif-sur-Yvette, France, January, 1979.

University of California, Santa Barbara, CA, March, 1979.

University of California, Riverside, CA, March, 1979.

Rice University, Houston, TX, October, 1982.

Texas A&M University, Department of Veterinary Microbiology & Parasitology, October, 1983.

University of Texas Cancer Center, Smithville, TX, May, 1984.

Rice University, Houston, TX, October, 1984.

Texas Woman's University, Denton, TX, October 1985.

Texas Christian University, Ft. Worth, TX, October, 1985.

University of Illinois at Chicago, Chicago, IL, February, 1986.

Ball State University, Muncie, IN, October, 1986.

Wabash College, Crawfordsville, IN, December, 1986.

Indiana University, Bloomington, IN, December, 1986.

University of Wisconsin, Madison, WI, April, 1987.

Universität Konstanz, Konstanz, German Federal Republic, May 1987.

Texas A&M University Department of Medical Biochemistry, May, 1988.

Hofstra University, Hempstead, NY, September, 1988.

Hofstra University, Hempstead, NY, November, 1994.

Texas A&M University, Department of Physics, February, 1995.

Teaching Capabilities

Undergraduate level: Introductory Biology and Laboratory; Developmental Biology; Cell and Molecular Biology at both entry and advanced levels. With some preparation: Biological Imaging/Microscopy and Laboratory; Cell Biology Laboratory; Protozoology.

Graduate Level: Developmental Biology; Protozoology and Laboratory; Light Microscopy (Physical Optics and Imaging Techniques).

Teaching Experience

Introductory Biology (lower level undergraduate — 2 semester sequence). Texas A&M University, 57 semesters, 1979–2018. Honors sections, 12 semesters, 1993–2003. Acting Director, Freshman Biology Program, Summer, 1983.

Cellular and Molecular Aspects of Development (graduate). Texas A&M University. Created the course, and have taught or co-taught it for 18 semesters, 1981–2002.

Developmental Biology (upper division undergraduate). Texas A&M University, 14 semesters, co-instructor, 1993–2006.

Cell Biology (upper division undergraduate). Texas A&M University, 17 semesters, 2003–2017.

Cell Biology Laboratory (upper division undergraduate). Texas A&M University, 2006.

Molecular Cell Biology (lower division undergraduate). Texas A&M University, 20 semesters, 2001–2016.

Light Microscopy (graduate). Texas A&M University, co-instructor, 14 semesters, 2005–2019.

Protozoology (graduate). Texas A&M University, Fall, 1980; Spring, 1982; Fall, 1988; Fall, 1994.

Seminar Courses at Texas A&M University: The Biology of Aging, Spring, 1984, 1994, Fall, 1989–1997; The Light Microscope. Optics and Modern Techniques, Fall, 1985, Spring, 1989; Ciliate Genetics, Spring 1980; Genetics, Biochemistry and Physiology of Exocytosis, Fall 1980; Protozoa & Man, Fall, 1983; Theory and Practice of Light Microscopy, Fall, 1984; Departmental Undergraduate Seminar Colloquium, Fall, 2000, Spring, 2002; graduate Journal Club on cilium structure/function/morphogenesis, 2011.

Mentor for minority high school students in the Texas A&M University High School Summer Research Apprentice Programs. Eight students mentored from 1990 to 1999.

Human Physiology Laboratory (intermediate level undergraduate). Supervisor of teaching assistants, Texas A&M University, Fall, 1979.

General Zoology Laboratory (lower level undergraduate). Postdoctoral/Instructor, University of Iowa, 4 semesters, 1977–1979. Preparation laboratory sessions (to acquaint the instructors with the laboratory exercises), Co-supervisor, Fall, 1978.

Genetics and Cell Biology (intermediate level undergraduate). Teaching Assistant, University of Minnesota, 5 quarters, 1971–1974.

Cell Biology Laboratory (upper level undergraduate). Teaching Assistant, University of Minnesota, 1 quarter, 1974.

Graduate Students

Alan Fisher, Master of Science (non-thesis), Biology, May, 1985.

George Aliaga (co-advisor), Doctor of Philosophy, Biology, August, 1990.

Dissertation title: *Characterization of the Flagellar Apparatus in the Motile Cells of Allomyces macrogynus.*

Hsiu-li Su (co-advisor), Master of Science, Biology, August, 1991.

Thesis title: *The Influence of the Albino Locus and the Brown Locus on Tyrosinase Activity of Mouse Skin Extracts.*

Gayatri Mukerji, Master of Science (non-thesis), Biology, May, 1992.

Qing Du (co-advisor), Master of Science (non-thesis), Physics, May, 1992.

Sunita Reddy (co-advisor), Master of Science, Microbiology, December, 1993.

Thesis title: *Lyme Disease in an Experimental Mouse Model.*

Debra Gamble, Doctor of Philosophy, Biology, May, 1994.

Dissertation title: *Aging in Wild-type and Early Death Mutants of Paramecium tetraurelia.*

Brian Edwards, Doctor of Philosophy, Biology, December, 1997.

Dissertation title: *Transformation Competence and Maintenance with Age in Paramecium tetraurelia.*

Christopher Janetopoulos, Doctor of Philosophy, Biology, May, 1999.

Dissertation title: *A Characterization of the Conjusome: A New Organelle in Tetrahymena thermophila Found Exclusively during Sexual Reorganization.*

Member of 48 graduate committees: 33 Ph.D., 15 M.S., 1981 to present.

Academic Service

University Level

Faculty Affairs Council, College of Science Representative, 1985–1986.

Member, Recruiting Committee, Genetics Faculty, 1985–1986.

Faculty Senator, 1994–1997; 1997–2000; 2003–2006; 2006–2009.
 Senate Research Committee, 1994–1996.
 Senate Academic Affairs Committee, 1996–1998.
 Senate Planning Committee, 1998–2000; 2003–2009.
 Senate Personnel and Welfare Committee, 1999–2000; 2008–2009.
 Deputy Chair, College of Science Senate Caucus, 1995–1997.
 Chair, College of Science Senate Caucus, 1997–2000.
 Senate Committee on Committees, 1997–2000; 2003–2007.
 Deputy Chair, Committee on Committees, 1998–1999.
 Secretary, Committee on Committees, 1999–2000.
 Senate Caucus Leaders' Committee, 1997–2000.

Member, *Ad-hoc* Committee on Reconciling the Faculty Reward System with the Multiple Missions of Texas A&M University, 1997–1999.

Review Panel for Scholarly and Creative Activities Grants Program, VPR/APGS Grants Program, 1994–1995 (10 proposals reviewed).

Review Panel for Interdisciplinary Research Initiatives Program, VPR/APGS Grants Program, 1998 (8 proposals reviewed).

Member, Graduate Studies Theme Group, Vision 2020 Task Force, 1998–1999.

Research Standards Officer (RSO), Office of University Research, 1999–2012.

Blinn College/Texas A&M Liaison Committee (Blinn TEAMS), 2000– .

Core Curriculum Council, College of Science Representative, 2001–2006; 2006–2009.

University Security Awareness Committee, 2004–2015.

Interim University Student Fiscal Appeals Panel, 2005.

University Student Fiscal Appeals Panel, 2005–2013.

College Level

College of Science Faculty Advisory Council
 Biology Representative (elected) 1982–1984; 1984–1986.
 Secretary of the Council, 1982–1984.
 Vice-Chair of the Council, 1984–1985.
 Chair of the Council, 1985–1986.

College of Science Grievance Committee, 1988–1991. Established grievance procedures at inception of committee.

Chair of the Grievance Committee, 1988–1990.

Ad hoc Member, College of Science Executive Committee, 1997–2000 .

Departmental Level

Elected representative Graduate Studies Committee, 1982–1987.

Chairman, Awards Committee, 1983–1986.

Member, Freshman Biology Coordinating Committee, 1984.

Member, Cell Biology Planning Committee, 1982.

Search Committee, Associate Department Head, 1983.

Chairman, Freshman Biology Non-majors Curriculum Committee, 1985–1986.

Member, Radiological Safety and Biohazard Committee, 1987–1989.

Member, Microscopy Committee, 1988–2000.

Member, Graduate Recruiting and Admissions Committee, 1988–1992; 2002–2007; 2012–2015.

Chair, Tenure Review Committee of Larry Griffing, 1990.

Faculty Coordinator, State Employee Charitable Contribution (United Way) campaign, 1994.

Member, Undergraduate Programs Committee, 1995–1998.

Member, Tenure Review Committee of Mark Zoran, 1996.

Member, Biological Instrumentation Laboratory Oversight Committee, 2000–2010.

Member, Untenured Faculty Review Committee, 2002.

Member, Search Committee for Director of Introductory Programs, 2003–2004.

Member, Lower Division Advisory Committee, 2004–2010.

Elected member, Annual Review and Awards Committee, 2005–2009.

Biology Department Liaison to University Libraries, Dr. Bruce Neville, 2010– .

Member, Biology Department Safety Committee, 2013– .

Elected member, Undergraduate Programs Committee, 2015– .

Student Service

Associate Faculty Advisor, The Cell and Molecular Biology Association, 2002–2005.

Member of Mentors, 1983–2008.

Faculty “Guru” to Biology majors, 2003–2007.

Advisor to approximately 50 undergraduate students per year.

National Service

Member, NIH Special Study Section 2 (SBIR), March, 1995.

Member, Education Committee, Society of Protozoologists, 1982–1992; 1993–1995.

Chairman, Education Committee, Society of Protozoologists, 1985–1992.

Elected member, Nominating Committee, Society of Protozoologists, 1990–1991.

Organizer of a Workshop, “Electron Microscopy of Protozoa,” at the 35th Annual Meeting of the Society of Protozoologists, August, 1982.

Organizer of a Workshop, “Light Microscopy of Protozoa,” at the 40th Annual Meeting of the Society of Protozoologists, July, 1987.

Host and Co-organizer (with Helmut Sauer) of the Ninth Southwestern Developmental Biology Conference, March 21–23, 1991, College Station, Texas.

Faculty Consultant (Reader), Advanced Placement Biology Examination, Educational Testing Service, 36th Annual Session, Princeton, NJ, June 3–9, 1991; 37th Annual Session, Princeton, NJ, June 3–9, 1992; 38th Annual Session, Clemson, SC, June 2–8, 1993; 39th Annual Session, Clemson, SC, June 2–8, 1994; 40th Annual Session, College Park, MD, June 3–9, 1995; 41st Annual Session, Lincoln, NE, June 6–12, 1996; 42nd Annual Session, Lincoln, NE, June 2–8, 1997; 43rd Annual Session, Clemson, SC, June 2–9, 1998; 45th Annual Session, Clemson, SC, June 2–9, 2000; 46th Annual Session (certified to grade Alternate/International Examinations), Clemson, SC, June 1–8, 2001; 48th Annual Session (Alternate/International/Braille Examinations), Lincoln, NE, June 12–19, 2003; 49th Annual Session (Alternate/International Examinations), Lincoln, NE, June 12–20, 2004; 50th Annual Session (Alternate/International Examinations), Lincoln, NE, June 12–20, 2005; 51st Annual Session (Alternate/International Examinations), Lincoln, NE, June 11–19, 2006; 52nd Annual Session (Table Leader, Alternate/International Examinations), Louisville, KY, June 9–19, 2007; 53rd Annual Session (Table Leader, Alternate/International Examinations), Kansas City, MO, June 6–16, 2008; 54th Annual Session (Table Leader, Alternate/International Examinations), Kansas City, MO, June 6–16, 2009; 55th Annual Session (Table Leader), Kansas City, MO, June 7–17, 2010; 56th Annual Session (Question Leader, Alternate/International Examinations), Kansas City, MO, June 5–16, 2011; 57th Annual Session (Question Leader, Alternate/International Examinations), Kansas City, MO, June 6–16, 2012; 58th Annual Session (Question Leader, Alternate/International Examinations), Kansas City, MO, June 6–18, 2013; 59th Annual Session (Table Leader), Kansas City, MO, June 8–18, 2014; 60th Annual

Session (Early Alternate/International Examinations Reader), Kansas City, MO, June 7–18, 2015; 61st Annual Session (Early Alternate/International Examinations Reader), Kansas City, MO, June 6–18, 2016; 62nd Annual Session (International Examinations Reader), Kansas City, MO, June 10–18, 2017; 63rd Annual Session (International Examinations Reader), Kansas City, MO, June 10–18, 2018.

Ad hoc reviewer: NSF grant proposals (Developmental and Cellular Biology Study Sections), Journal of Cell Biology, Genetics, New York University grants program, Transactions of The American Microscopical Society, Wilhelm Roux's Archives of Developmental Biology, Handbook on the Biology of Aging, Journal of Protozoology, Journal of Eukaryotic Microbiology, Developmental Genetics, Applied Optics, Protoplasma, European Journal of Protistology, Development, Nature.

Civic/Community Service/Outreach

Teacher of Beginning and Intermediate Calligraphy courses. College Station Community Education Program, 1980–1986; Iowa City Adult Education Program, 1977–1979.

Counselor to cancer patients and lecturer to meetings of the American Cancer Society.

Director, Adult Choir, Friends Congregational Church (UCC), College Station, TX, 1993–1998.

Member (voice and harp), St. Cecilia Consort (Medieval, Renaissance, and Baroque Music). Concerts twice a year at the Solstices, St. Thomas Episcopal Church, College Station, TX, 1998–.

Director, Music Ministries and Adult Sanctuary Choir, First Christian Church, Bryan, TX, 1998–.

Elder, First Christian Church, Bryan, TX, 2007–2010; 2012–2015; 2016–.

Elected President, Brazos Valley Astronomy Club, 2011–2012; 2012–2013; 2013–2014; Vice-President, 2015–2016; 2016–2017; 2017–.

Professional Societies

AAUP
AAAS
Society of Protozoologists

References

Dr. David Nelson (608) 263-6879
Department of Biochemistry
University of Wisconsin
Madison WI 53706

Dr. Judith Van Houten (802) 656-0452
Department of Biology
University of Vermont
Burlington VT 05405-0086

Dr. C. O. Patterson (979) 845-2187
Department of Biology
Texas A&M University
College Station TX 77843-3258

Publications

(Abstracts identified with *.)

Rosenberg, MD, Aufderheide, K and Christianson, J. 1969. *In vitro* enhancement of cell clumping by surface region fractions. *Exptl. Cell Res.* **57**:449–454.

Aufderheide, K and Kleese, RA. 1972. A possible factor in the neutral petite phenomenon of *Saccharomyces cerevisiae*. *J. Cell Biol.* **55**:8a.*

Aufderheide, K. 1973. Correlation between zygotic budsite and suppressiveness and neutrality in *Saccharomyces cerevisiae*. *J. Cell Biol.* **59**:12a.*

Aufderheide, KJ. 1975. *Cytological Observations of Cytoplasmic Genetic Phenomena in Saccharomyces cerevisiae*. Ph.D. Thesis, University of Minnesota. (Ann Arbor: University Microfilms, #75–12,036).

Aufderheide, KJ. 1975. Cytological observations of cytoplasmic genetic phenomena. (Thesis Abstract) *Dissertation Abs. Intl.* **35(12,1)**:5936B–5937B.*

Aufderheide, KJ. 1975. Cytoplasmic inheritance in *Saccharomyces cerevisiae*: comparison of first zygotic budsite to mitochondrial inheritance patterns. *Mol. gen. Genet.* **140**:231–241.

Aufderheide, KJ and Johnson, RG. 1976. Cytoplasmic inheritance in *Saccharomyces cerevisiae*: comparison of zygotic mitochondrial inheritance patterns. *Mol. gen. Genet.* **144**:289–299.

Aufderheide, K. 1976. Synchrony of division in mass cultures of *Paramecium tetraurelia* by a selective density-labeling technique. *Genet. Res. (Camb.)* **27**:171–177.

Aufderheide, KJ. 1976. Intracellular motility and trichocyst and localization in *Paramecium tetraurelia*. *J. Protozool.* **23**:23A.*

Aufderheide, KJ. 1977. Identification by microinjection of the lesions due to trichocyst mutations in *Paramecium tetraurelia*. Abstracts of the 5th International Congress of Protozoology, #465.*

Aufderheide, KJ. 1977. Saltatory motility of uninserted trichocysts and mitochondria in *Paramecium tetraurelia*. *Science (USA)* **198**:299–300.

Aufderheide, KJ. 1978. Motility events of trichocyst insertion in *Paramecium tetraurelia*. *J. Protozool.* **25**:362–365.

Aufderheide, KJ. 1978. Genetic aspects of intracellular motility. Cortical localization and insertion of trichocysts in *Paramecium tetraurelia*. *J. Cell Sci.* **31**:259–273.

Aufderheide, KJ. 1978. The effective sites of lesions due to some trichocyst mutations in *Paramecium tetraurelia*. *Mol. gen. Genet.* **165**:199–205.

Aufderheide, KJ. 1978. The association of mitochondria with the cortex of *Tetrahymena thermophila* to form specific asymmetrical patterns. *J. Protozool.* **25**:7A.*

- Aufderheide, KJ and Sonneborn, TM. 1979. The effective site of the lesion resulting from a trichocyst non-discharge stable differentiation of somatic nuclei in *Paramecium tetraurelia*. *J. Cell Sci.* **39**:313–317.
- Aufderheide, K. 1979. Mitochondrial associations with specific microtubular components of the cortex of *Tetrahymena thermophila*. I. Cortical patterning of mitochondria. *J. Cell Sci.* **39**:299–312.
- Aufderheide, KJ. 1980. Mitochondrial associations with specific microtubular components of the cortex of *Tetrahymena thermophila*. II. Response of the mitochondrial pattern to changes in the microtubule pattern. *J. Cell Sci.* **42**:247–260.
- Aufderheide, KJ, Frankel, J and Williams, NE. 1980. The formation and positioning of surface-related structures in Protozoa. *Microbiol. Revs.* **44**:252–302.
- Aufderheide, KJ. 1980. Associations of cortical mitochondria with cortical microtubules and with the epiplasm of *Tetrahymena thermophila*. *J. Protozool.* **27**:19A.*
- Lefort-Tran, M, Aufderheide, K, Pouphe, M, Rossignol, M and Beisson, J. 1981. Genetic dissection of exocytotic processes. Cytological and physiological studies of trichocyst mutants in *Paramecium tetraurelia*. *J. Cell Biol.* **88**:301–311.
- Aufderheide, KJ. 1982. An improvement in the protargol technique of Ng and Nelsen. *Trans. Amer. Micros. Soc.* **101**:100–104.
- Aufderheide, KJ. 1982. Study of the causes of clonal aging in *Paramecium tetraurelia* using micro-injection. *J. Protozool.* **29**:294.*
- Aufderheide, KJ. 1982. The non-cytotactic nature of metachrony in *Paramecium tetraurelia*. *J. Protozool.* **29**:476.*
- Aufderheide, KJ, Daggett, PM and Nerad, TA. 1983. *Paramecium sonneborni*, n. sp., a new member of the *Paramecium aurelia* species-complex. *J. Protozool.* **30**:128–131.
- Aufderheide, KJ. 1983. Mitochondrial associations with specific components of the cortex of *Tetrahymena thermophila* Nanney & McCoy, 1976: microtubules and the epiplasm. *J. Protozool.* **30**:457–460.
- Aufderheide, KJ. 1983. Comparison of aging characteristics of wild-type and mutant strains of *Paramecium tetraurelia*. *J. Protozool.* **30**:26A.*
- Aufderheide, KJ. 1984. Cellular aging: an overview. In: *Cellular Ageing. Monographs in Developmental Biology, Vol. 17*, H. Sauer, ed. (Karger AG, Basel), pp. 2–8.
- Nyberg, D and Aufderheide, K. 1984. *Paramecium tetraurelia*. In: *Genetic Maps 1984, Vol. 3*, S.J. O'Brien, ed. (Cold Spring Harbor Laboratories), pp. 209–210.
- Aufderheide, KJ. 1984. Phenotypic change caused by macronuclear transplantation in *Paramecium tetraurelia*. *J. Protozool.* **31**:17A.*

- Aufderheide, KJ. 1984. Clonal aging in *Paramecium tetraurelia*. Absence of evidence for a cytoplasmic factor. *Mech. Ageing Develop.* **28**:57–66.
- Aufderheide, KJ. 1985. Trichocyst phenotype transformation induced by macronuclear transplantations in *Paramecium tetraurelia*. *Exp. Cell Res.* **156**:282–286.
- Aufderheide, KJ. 1985. Genetic and cortical phenotypes associated with early clonal death in *Paramecium tetraurelia*. *Tex. J. Sci.* **37**:113.*
- Aufderheide, KJ and Schneller, MV. 1985. Phenotypes associated with early clonal death in *Paramecium tetraurelia*. *Mech. Ageing Develop.* **32**:299–309.
- Aufderheide, KJ. 1986. Identification of basal bodies and kinetodesmal fibers in living cells of *Paramecium tetraurelia* Sonneborn, 1975 and *Paramecium sonneborni* Aufderheide, Daggett & Nerad, 1983. *J. Protozool.* **33**:77–80.
- Aufderheide, KJ. 1986. Patent disclosure: “Rotocompressor (Rotary Microcompressor).” Submitted to the Texas A&M University System Patent committee, June 13, 1986.
- Aufderheide, KJ. 1986. Structural and morphogenetic consequences of 180° rotation of portions of the cortex of *Paramecium*. *J. Protozool.* **33(Suppl.)**:57A.*
- Aufderheide, KJ. 1987. Clonal aging in *Paramecium tetraurelia*. II. Evidence of functional changes in the macronucleus with age. *Mech. Ageing Develop.* **37**:265–279.
- Nyberg, D and Aufderheide, K. 1987. *Paramecium tetraurelia*. In: *Genetic Maps, Vol. 4*, S.J. O'Brien, ed. (Cold Spring Harbor Laboratory Press), pp. 252–253.
- Godiska, R, Aufderheide, KJ, Gilley, D, Hendrie, P, Fitzwater, T, Preer, LB, Polisky, B and Preer, JR. 1987. Transformation of *Paramecium* by microinjection of a cloned serotype gene. *Proc. Nat. Acad. Sci. USA* **84**:7590–7594.
- Aufderheide, KJ. 1987. Transformation of *Paramecium tetraurelia* by microinjection of cloned serotype antigen genes. *J. Protozool.* **34(Abs.)**:9A.*
- Gilley, D, Preer, JR, Aufderheide, KJ and Polisky, B. 1988. Autonomous replication and addition of telomere-like sequences to DNA microinjected into *Paramecium* macronuclei. *Mol. Cell. Biol.* **8**:4765–4772.
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