

Curriculum vita**Leslie A. Schiff, Ph.D.****ADDRESS:**

Department of Microbiology
University of Minnesota
420 Delaware Street S.E.
Minneapolis, MN 55455

TELEPHONE:

(612) 624-9933

FAX:

(612) 626-0623

E-MAIL:

schif002@umn.edu

EDUCATION:

Brown University, Sc.B., Biology, 1979
Tufts University, Ph.D., Immunology, 1985

**PROFESSIONAL
EXPERIENCE:**

Postdoctoral Associate with Dr. Bernard Fields
Harvard Medical School, 1985 - 1990

Assistant Professor (Microbiology)
University of Minnesota, 1990-1996

Associate Professor (Microbiology)
University of Minnesota, 1996-2005

Professor (Microbiology)
University of Minnesota, 2005-present

Director of Undergraduate Studies (Microbiology)
University of Minnesota, 1999-present

Associate Dean for Curricular Innovation and Assessment (College of Biological
Sciences), 2012-2013; Director of Undergraduate Initiatives (College of Biological
Sciences), 2013-

Associate Dean, University Curriculum (University of Minnesota Twin-Cities), 2013-

HONORS:

NIH Postdoctoral Fellowship, 1987-1989

University of Minnesota President's Distinguished Faculty Mentor Award, 2000

University of Minnesota Center for Interdisciplinary Study of Writing Award for
Excellence in the Teaching of Writing, 2001

Horace T. Morse University of Minnesota Alumni Association Award for Outstanding
Contributions to Undergraduate Education, 2002

Academy of Distinguished Teachers, University of Minnesota, 2002-present

Convocation Speaker, University of Minnesota, 2003

Senior Teaching Fellow, University of Minnesota, 2003

Carski Foundation Distinguished Teaching Award, American Society for Microbiology,
2004

Committee on Institutional Cooperation Academic Leadership Fellow, 2007-2008

American Academy of Microbiology Fellow, 2009

Academic Health Center Academy for Excellence in the Scholarship of Teaching and
Learning, 2014

**PROFESSIONAL
AFFILIATIONS:**

American Society for Microbiology (ASM), 1981-present

American Society for Virology, 1989-present

**PROFESSIONAL
ACTIVITIES:**

Education-related (within and outside* the institution):

Preceptor: Cancer Biology Training Grant, Infectious Diseases Training Grant, MD/PhD Program, MIMP/MICaB Graduate Program

Affiliate Member, Graduate Faculty in Biological Sciences

* Invited participant in National Science Foundation Project Kaleidoscope Invitational Symposium: Faculty for the 21st Century, 1991 and 1992

* Task Force Member for Project Kaleidoscope Research-Rich Environment Workshop, 1992

Faculty Writing Consultant (representing the Department of Microbiology) for the Center for Interdisciplinary Studies of Writing, University of Minnesota, 2001

Faculty Writing Consultant (representing the College of Biological Sciences) for the Center for Writing, 2003

Presenter at teaching enhancement workshops sponsored by the University of Minnesota Center for Teaching and Learning Services and the Center for Writing: *Less Yields More: Using Short Writings in Writing Intensive Courses*, Winter 2000 and Fall 2001; *Using Technology to Enhance Learning and Teaching Objectives*, Spring 2001; *Enhancing Large Lecture Courses: A Showcase*, Fall 2001; *Enhancing Large Lecture Courses: Continuing the Discussion*, Fall 2001; *Making Use of Short and Informal Writing Assignments*, Fall 2002, Fall 2003, and Fall 2004; *Teaching Writing One-on-One*, Fall 2003; *Grading Writing*, Fall, 2003; *Writing-to-Learn*, Fall 2003; *Teaching with Writing Online*, Fall, 2005; *Designing writing assignments that promote learning*, Fall 2005; *Incorporating writing instruction into "content" courses*, Spring 2006; *Teaching with Writing Online and Grammar matters*, Fall 2006; *What's Grammar Got To Do With It*, Spring 2007; *Grading Student Writing*, Spring 2008, *Senior Projects*, Spring 2009; *Handling the Paper Load in CBS Lab and Lecture Courses (Systems Towards Effective Grading & Commenting on Student Writing*, Spring 2011; *Senior Seminars, Senior Papers, Senior Projects: Structuring Capstone-Level Writing Experiences*, Spring 2012; *Grading Rubrics: The Good, the Bad, the Ugly: Get Ready*, November 2013; *Elements of the Effective Capstone Experience*, November 2014

Co-instructor for Preparing Future Faculty course, Grad 8101: Teaching in Higher Education, 2002 (*One of three faculty members chosen to pair with instructional staff from the Center for Teaching and Learning Services*)

Co-instructor for Grad 8200: Active Learning and Course Design in the Sciences, 2004

* Member, American Society for Virology Education Committee, 2004-7

Co-chair Academy of Distinguished Teachers workshop at 2005 and 2006 retreat: "Students, They Are A'Changin'" with Laura Coffin Koch

Member, Committee on Evaluation of Teaching in the College of Biological Sciences, 2006

Member, College of Biological Sciences Committee on Student Mentoring, 2008

Chair, University of Minnesota Council on Liberal Education, 2006-8; charged with reviewing and revising UMTC liberal education requirements

Member, Vice Provost's Curricular Initiatives Steering Committee, 2008-2009

Editorial Board, "Transform", University of Minnesota scholarship of teaching and learning newsletter

Co-chair Academy of Distinguished Teachers workshop: "Diverse Learners, Diverse Teaching, Diverse Outcomes", with Pareena Lawrence

* Working group member, Reinvention Center-NSF initiative to assess writing as a means to promote critical thinking in the STEM disciplines, 2008-

Liaison for the College of Biological Sciences effort to develop a Writing Enriched Curriculum (as part of a Bush Foundation grant awarded to the U of MN)

* Consultant, Liberal Education Reform; University of Arkansas, Fullbright College, Dec. 2008

Education Outreach:

Consultant on an NIH Science Education Partnership Award (SEPA) from the Minnesota Science Museum: "Science Education Partnership—Tissues of Life" (RR15645, awarded in 2002)

Facilitated development of a "Tissue Invaders" exhibit to focus on microbial interactions with human hosts. <http://www.smm.org/tissues/leslie.html>

Presented information on the study of viruses to participants in the Minnesota Science Museum's Biotechnology Teacher Curriculum Enhancement Institute, Fall and Spring 2001

Consultant on an NIH SEPA grant from the Minnesota Science Museum: "Science Education Partnership-Emerging Infectious Disease", 2004 (funded); currently consulting on exhibit design

Reviewer (*Education-related) :

NIH: Virology Study Section (full member, 1998-2001); ad hoc (2004); VIRB Study Section, (ad hoc, 2005; full member, 2006-2010)

Ad hoc: Veterans Administration Merit Grant Awards, Natural Sciences and Engineering Research Council of Canada, Journal of Virology, Virology, Journal of General Virology, others

* Merck/AAAS Undergraduate Science Research Program grant review panel (2003-2005)

* Reviewer, NSF-BIO Research Experiences for Undergraduates Site proposals, 2008

* American Academy of Microbiology: Carski Foundation Distinguished Undergraduate Teaching Award Selection Committee, 2010-2013

Invited speaker:

Education-related:

Carski Award Lecture, ASM Annual Meeting: "Cell Phones, CNN, TiVo and Teaching: Educational Challenges in these Digital Times", 2004

* Invited panel participant, "Constructing Legitimacy and News Value in Scientific and Popular Science Genres", at the National Communication Association annual meeting with Laura Gurak, Zoe Nyssa and Carol Berken, Department of Rhetoric, 2006

Tufts University Sackler School of Graduate Biomedical Science: Career roundtable with fellows of the NIH-IRACDA-funded 'Training in Education and Critical Research Skills Program', 2009

Reinvention Center, Access and Success: Undergraduate Education in the 21st Century: "Using Writing to Enhance Learning and Critical Thinking in Disciplinary Courses", 2012

International Writing Across the Curriculum Conference: Panel Discussion "Mapping Waves, Bridging Shifts: Disciplinary Faculty Take on Whole Curricula", 2014

Research-related:

UCLA Symposium: Cell Biology of Virus Entry, Replication and Pathogenesis, "Genetics and Biochemistry of Early Events of Viral Infections in a Host", 1988

FASEB Summer Research Conference: Micronutrients: Trace Elements, "The Zinc Blotting Technique for Immobilized Proteins—Applications", 1989

University of Minnesota, Department of Microbiology: "Structure and Function of Reovirus Major Outer Capsid Proteins", 1990

University of Vermont, Department of Microbiology and Molecular Genetics: "Structure and Function of Reovirus Major Outer Capsid Proteins", 1990

Centers for Disease Control, Special Pathogens Branch: "Structure and Function of Reovirus Major Outer Capsid Proteins", 1990

SUNY, Syracuse Health Sciences Center, Department of Microbiology and Immunology: "Role of Reovirus Outer Capsid Proteins in Extra- and Intracellular Pathogenesis", 1995

University of Alberta, Heritage Research Council: "Role of Reovirus Outer Capsid Proteins in Extra- and Intracellular Pathogenesis", 1995

University of Wisconsin-Madison, Institute for Molecular Virology, "Reovirus capsid proteins s3 and m1: Interactions that Influence Viral Entry, Assembly and Translational Control", 1995

Uniformed Services University of Health Sciences, Department of Microbiology and Immunology: "Role of Reovirus Outer Capsid Proteins in Extra- and Intracellular Pathogenesis", 1996

Southwest Foundation for Biomedical Research, Department of Virology and Immunology: "Role of Reovirus Outer Capsid Proteins in Extra- and Intracellular Pathogenesis", 1996

University of Illinois, Department of Microbiology: "Reovirus Protein s3: Dual Roles in Viral Entry and Translational Regulation", 1999

Loyola University, Department of Microbiology and Immunology: "Cellular Determinants of Reovirus Entry: May I Take Your Coat?", 2001

University of Michigan, Department of Microbiology: " Breaking and Entering: Cell Entry by the Oncolytic Reoviruses", 2006

University of Calgary, Department of Oncology and Clinical Neurosciences: " Breaking and Entering: Cell Entry by the Oncolytic Reoviruses", 2006

University of Washington, Department of Pathobiology *Student-Invited Speaker*: "Breaking and Entering: Cell Entry by the Oncolytic Reoviruses", 2008

Tufts University Sackler School of Graduate Biomedical Science: "Breaking and Entering: Cell Entry by the Oncolytic Reoviruses" 2009

Mayo Clinic: "Reovirus Oncolysis: Breaking and entering, killing and leaving, spreading the mayhem", 2011

RESEARCH SUPPORT: Recent (*Education-related):

NIH: Reovirus sigma 3 protein: structural and regulatory functions. 2005-2010, \$1,125,000 total direct costs.

* NSF REU (Research Experiences for Undergraduates): Microbiology—From Atoms to Ecosystems at the University of Minnesota (2008-2011). This grant was focused on offering undergraduate research experiences at the University of Minnesota to under-represented minority students from other institutions around the country.

* NSF-TUES II(Transforming Undergraduate Education) application, prepared in collaboration with colleagues at Duke University, Morgan State and UNC-CH: Understanding the Role of Writing in Promoting Learning and Engagement in Diverse Undergraduate Thesis Writers; DUE-1225608 (2013-15)

**UNDERGRADUATE
RESEARCH TRAINEES:**

Ross Kedl, Ph.D. (*Professor, Dept. of Immunology, UCHSC*)

David Sandvik

Brent Huberty (*Manager, Pharmacia/Upjohn Sterility Testing Laboratory*)

Pamela Skinner, Ph.D. (*Asst. Professor, University of Minnesota Veterinary School*)

Robert Anderson, M.D./Ph.D. (*ASM undergraduate research fellowship awardee, Residency, Dallas; practicing physician*)

Michael Chute (*Manager, BSL3 Laboratory, Biological Defense Research Directorate, Naval Medical Research Center*)

Jeffrey Ehnstrom, M.D. (*Family practice in Minnesota*)

Matthew Moses

Kara Thoemke, Ph.D. (*University of Minnesota; biology professor College of St. Scholastica*)

Jay Santos (*ASM undergraduate research fellowship awardee*)

Ashley Fuller, MD (*Graduate of the University of Minnesota Medical School, OB/Gyn resident, UT-Southwestern*)

Patrick Laitala (*Advanced Microbial Systems*)

Tseganesh Selameab, M.D. (*Graduate of the University of Minnesota Medical School, residency, Boston Medical Center; Physician in the Twin Cities*)

Amanda Kostyk, Ph.D. (*M.D./Ph.D. University of Colorado*)

Jessica Linke (*National Conference on Undergraduate Research participant; Biology teacher, Annandale High School*)

Eva Chung (*Mentored through the Presidents Distinguished Faculty Mentor Program, Ph.D. in Immunology at Duke; Protocol coordinator for HIV Vaccine Trial Network*)

Jim Rochford (*Graduate*)

Christine Kunz (*Nursing*)

Daniel Westholm (*Ph.D., biology professor College of St. Scholastica*)

Brian Finstead (*Beckman-Coulter, Production Scientist*)

Taj Melson (*MD, University of Michigan; physician at HCMC*)

Linse Lahti (*Masters, Water Science; University of Minnesota*)

Meghan Ahl (*Recent graduate, pediatrics resident UW*)

Amelia Haj (*MD/PhD student, UW Madison*)

**POST-BACCALAUREATE
RESEARCH TRAINEES:**

Raul Rosas, M.D.
Ingrid Huntley
Linse Lahti

**PRESIDENT'S
DISTINGUISHED
FACULTY MENTOR
PROGRAM:**

Eva Chung, 2000
Julie Hang, 2001
Remy Wong, 2002
Dane Schaleben-Boateng, 2009-2010

**GRADUATE
STUDENTS:**

Stephen Schmechel, M.D./Ph.D., 9/92 - 4/99 (*Assistant Professor, Lab Medicine and Pathology, U of MN*)
Joseph Golden, Ph.D., 12/99- 3/05 (*Postdoctoral fellow at USAMARID*)
Jennifer Smith, Ph.D., 5/00-3/05 (*Postdoctoral fellow with P. Howley, Harvard Medical School*)
Rachel Nygaard, 5/07-7/12
Wade Schulz, 7/08-10/12

**POSTDOCTORAL
ASSOCIATES:**

Deborah Shepard, Ph.D., 1993-1995

COMMITTEES:

Department Level:

Committee on Graduate Studies, Department of Microbiology, 1991- 1994
Coordinator, Department of Microbiology Seminar Series, 1992-1993

Committee on Graduate Studies, Microbiology, Immunology and Molecular Pathobiology Graduate Program, 1995-1997

Honors Representative for Microbiology, College of Liberal Arts and College of Biological Sciences, 1999-present

MICaB Graduate Faculty Admissions Committee, 2004

MicrobiologyCurriculum/Education Task Force, Chair, 2004

College Level:

Educational Policy Committee, College of Biological Sciences, 1995 and 1999-present

Scholarship Review Committee, College of Biological Sciences, 1999-present

Community College Liason Committee, College of Biological Sciences, 1999-present

Task Force on Undergraduate Research, College of Biological Sciences, 2002

Writing Consultant for the College of Biological Sciences, 2003-present

CBS Faculty Recognition Committee, 2004-present

Search Committee for Director of CBS Honors, 2006

Executive Steering Committee for Design of a "Foundations of Biology" introductory course for all CBS majors, 2006

Member, Committee on Evaluation of Teaching in the College of Biological Sciences, 2006

CBS Student Mentoring Task Force, 2008

CBS Deans Advisory Council on Priorities, 2009

Biology Major Advisory Committee, 2010-present

University Level:

Interviewer, Medical School Admissions, 1990-1999

M.D/Ph.D. Program Steering Committee, 2003-2005

Writing-Intensive Policy Task Force, 2003-present

Academy of Distinguished Teachers Working Groups: Status of Teaching in Merit Assessments, 2003-present

Academy of Distinguished Teachers Working Groups: Relationship Between Teaching and Research, 2003-present

Academy of Distinguished Teachers—Twin Cities Campus Steering Committee, 2004-2006

University Senate Nominating Committee, 2005-

University Strategic Positioning Task Force on Undergraduate Reform: Honors, 2005

University Strategic Positioning Task Force on Undergraduate Reform: Writing; member of working group on Writing Across the Curriculum, 2005

Bush Grant: Writing-enriched Instruction Across the Disciplines, planning committee, June 2006

Chair, University of Minnesota Council on Liberal Education, 2006-8; charged with reviewing and revising UMTC liberal education requirements

University of Minnesota Twin Cities Undergraduate Curricular Initiatives Steering Committee, 2008-2009

University of Minnesota Twin Cities Undergraduate Writing Initiatives Steering Committee, 2009-present

Alternate, University Senate and Medical School Faculty Advisory Council (FAC), 2007-

Chair, Vice Provost's working group on Liberal Education Assessment, 2009-2010

Council on Liberal Education, 2008-2010

Provost's Committee on Student Mental Health (representative for the faculty), 2010-2011

Senate Committee on Educational Policy, 2011-2013

University Curriculum Committee, 2012-2013

TEACHING:

MicB 8421: Virology and Tumor Biology (graduate level), 1990-1999

MicB 5425: Virology and Molecular Genetics Laboratory (undergraduate level), 1990-1999

MicB 5205: Microbiology for Medical Students, 1998-1999

MIMP 8002: Structure, Function, and Genetics of Bacteria and Viruses (graduate level), 2000-2005 [*team taught: 6 contact hours*]

MICaB 8010: Microbial Pathogenesis (graduate level), 2001-2007 [*team taught: 4 contact hours*]

Grad 8101: Teaching in Higher Education (graduate and post-graduate level), 2002

Grad 8200: Active Learning and Course Design in the Sciences (graduate and postgraduate level), 2004

MicB 4141W: Biology, Genetics and Pathogenesis of Viruses (undergraduate level, *Writing Intensive*) 2000-present, [*sole responsibility: 44 contact hours, enrollment ~12*]

MicB 4171: Biology, Genetics and Pathogenesis of Viruses (undergraduate level, non-writing intensive) 2004-present, [*sole responsibility: 38 contact hours, enrollment ~40*]

Biol 4960H/4961H: Thesis writing support, 2010-present (developing curriculum for honors and non-honors support of capstone writing)

PUBLICATIONS:

1. Konopka, J.B., Davis, R.L., Watanabe, S.M., Ponticelli, A.S., **Schiff-Maker, L.**, Rosenberg, N., and Witte, O.N. (1984). Only site-directed antibodies reactive with the highly conserved src-homologous region of the v-abl protein neutralize kinase activity. *J. Virol.* **51**:223-232.
2. **Schiff-Maker, L.**, Burns, M.C., Konopka, J.B., Clark, S., Witte, O.N., and Rosenberg, N. (1986). Monoclonal antibodies specific for v-abl and c-abl-encoded molecules. *J. Virol.* **57**:1182-1186.
3. **Schiff-Maker, L.** and Rosenberg, N. (1986). Gag-derived but not abl-derived determinants are exposed on the surface of Abelson virus-transformed cells. *Virology* **154**:286-301.
4. Huebner, R.C., Engelman, A., **Schiff, L.**, and Rosenberg, N. (1988). Abelson virus sequences important in lymphoid transformation. *In: B Cell Development*. N. Klineman, O.N. Witte, and M. Howard, eds. Alan R. Liss, Inc. pp 257-270.
5. **Schiff, L.A.**, Nibert, M.L., Co, M.S., Brown, E.G., and Fields, B.N. (1988). Distinct binding sites for zinc and double-stranded RNA in the reovirus outer capsid protein s3. *Mol. Cell. Biol.* **8**:273-283.
6. **Schiff, L.A.**, Nibert, M.L., and Fields, B.N. (1988). Characterization of a zinc blotting technique: Evidence that a retroviral gag protein binds zinc. *Proc. Natl. Acad. Sci. USA* **85**:4195-4199.
7. **Schiff, L.A.** and Fields, B.N. (1990). Reoviruses and their replication. *In: Fields Virology*. B. Fields, D.M. Knipe, R.M. Chanock, M. Hirsch, J.L. Melnick, T. Monath, B. Roizman, eds. Raven Press, Inc, New York, New York.
8. Nibert, M.L., **Schiff, L.A.**, and Fields, B.N. (1991) Mammalian reoviruses contain a myristoylated structural protein. *J. Virol.* **65**:1960-1967.
9. Dermody, T.S., **Schiff, L.A.**, Nibert, M.L., Coombs, K.M., and Fields, B.N. (1991). The S2 gene nucleotide sequences of prototype strains of the three reovirus serotypes: Characterization of reovirus core protein s2. *J. Virol.* **65**:5721-5731.
10. Upton, C., **Schiff, L.**, Rice, S.A., Dowdeswell, T., Yang, X., and McFadden, G. (1994). A poxvirus protein binds zinc through a RING finger motif and localizes in virus factories. *J. Virol.* **68**:4186- 4195.
11. Kedl, R., Schmechel, S., and **Schiff, L.** (1995). Comparative sequence analysis of the reovirus S4 gene from 13 serotype 1 and serotype 3 field isolates. *J. Virol.* **69**:552-559.
12. Shepard, D., Ehnstrom, J., and **Schiff, L.** (1995). Association of reovirus outer capsid proteins sigma3 and mu1 renders sigma3 protease sensitive. *J. Virol.* **69**:8180-8184.
13. Shepard, D.A., Ehnstrom, J.G., Skinner, P.J. and **Schiff, L.** (1996). Mutations in the zinc-binding motif of the reovirus capsid protein sigma3 eliminate its ability to associate with capsid protein mu1. *J. Virol.* **70**:2065-2068.
14. Nibert, M., **Schiff, L.A.** and Fields, B.N. Reoviruses and their replication. (1996). *In: Fields Virology*. B. Fields, D.M. Knipe, R.M. Chanock, M. Hirsch, J.L. Melnick, T. Monath, B. Roizman, eds. Raven Press, Inc., New York, New York.
15. Schmechel, S., Anderson, R., Chute, M., Meurs, E., Skinner, P. and **Schiff, L.** (1997). Preferential translation of reovirus mRNA by a s3-dependent mechanism. *Virology* **232**:62-73.
16. **Schiff, L.A.** (1998). Reovirus outer capsid proteins s3 and m1: Interactions that influence viral entry, assembly and translational control. *In: Current Topics in Microbiology and Immunology*. Vol. 233/ 1 pp. 167-183. K.L Tyler and M.B.A. Oldstone, eds. Springer Verlag.
17. Brick, D.J., Burke, R.D., **Schiff, L.**, and Upton, C. (1998). Shope fibroma ring finger protein N1R binds DNA and inhibits apoptosis. *Virology* **249**:42-51.
18. Jane-Valbuena, J., Nibert, M.L., Walker, S.B., Baker, T.S., Chen, Y., Centonze, V.E. and **Schiff, L.A.** (1999). Reovirus virion-like particles obtained by recoating ISVPs with baculovirus-expressed s3 protein: an approach for analyzing s3 functions during virus entry. *J. Virol.* **73**:2963-2973.
19. Chandran, K., Walker, S.B., Chen, Y., Contreras, C.M., **Schiff, L.A.**, Baker, T.S., and Nibert, M.L. (1999). Infectious virion-like particles generated by recoating reovirus cores with baculovirus- expressed m1 and s3 proteins. *J. Virol.* **73**:3941-3950.
20. Gillian, A.L., Schmechel, S.C., Livny, J., **Schiff, L.A.**, and Nibert, M.L. (2000). Reovirus nonstructural protein sNS binds in multiple copies to single-strand RNA molecules and exhibits ATP-independent duplex-unwinding activity. *J. Virol.* **74**: 5939-5948.

21. **Schiff, L.A.** and Nibert, M.L. Reoviruses and their replication (**2001**). In: *Fields Virology*. D.M. Knipe, R. Lamb, P. Howley eds. Lippincott Williams & Wilkins, Inc.
22. Olland, A.M., Jane-Valbuena, J., **Schiff, L.A.**, Nibert, M.L., and Harrison, S.C. (**2001**) Structure of the reovirus outer capsid protein $\sigma 3$ at 1.8 angstroms resolution. *EMBO J.* **20(5)**:1-11.
23. Schneider R, Agol VI, Andino R, Bayard F, Cavener DR, Chappell SA, Chen JJ, Darlix JL, Dasgupta A, Donze O, Duncan R, Elroy-Stein O, Farabaugh PJ, Filipowicz W, Gale M Jr, Gehrke L, Goldman E, Groner IO, Harford JB, Hatzoglou M, He B, Hellen CU, Hentze MW, Hershey J, Hershey P, Hohn T, Holcik M, Hunter CP, Igarashi K, Jackson R, Jagus R, Jefferson LS, Joshi B, Kaempfer R, Katze M, Kaufman RJ, Kiledjian M, Kimball SR, Kimchi A, Kirkegaard K, Koromilas AE, Krug RM, Krusys V, Lamphear BJ, Lemon S, Lloyd RE, Maquat LE, Martinez-Salas E, Mathews MB, Mauro VP, Miyamoto S, Mohr I, Morris DR, Moss EG, Nakashima N, Palmenberg A, Parkin NT, Pe'er T, Pelletier J, Peltz S, Pestova TV, Pilipenko EV, Prats AC, Racaniello V, Read GS, Rhoads RE, Richter JD, Rivera-Pomar R, Rouault T, Sachs A, Sarnow P, Scheper GC, **Schiff L**, Schoenberg DR, Semler BL, Siddiqui A, Skern T, Sonenberg N, Tahara SM, Thomas AA, Toulme JJ, Wilusz J, Wimmer E, Witherell G, Wormington M. (**2001**). New ways of initiating translation in eukaryotes. (Letter to the Editor) *Mol. Cell. Biol.* **21**:8238-46.
24. Jane-Valbuena, J., Breun, L.A., **Schiff, L.A.**, and Nibert, M.L. (**2002**). Sites and determinants of early cleavages in the proteolytic processing pathway of reovirus surface protein $\sigma 3$. *J. Virol.* **76**:5184-5197.
25. Golden, J.W., Linke, J., Schmechel, S.C., Thoemke, K. and **Schiff, L.A.** (**2002**). Addition of exogenous protease facilitates reovirus infection in many restrictive cells. *J. Virol.* **76**:7430-7443.
26. Golden, J.W., Bahe, J., Lucas, W.T., Nibert, M.L. and **Schiff, L.A.** (**2004**) Cathepsin S supports acid-independent infection by some reoviruses. *J. Biol. Chem.* **279**: 8547-8557.
27. Smith, J.A., Schmechel, S.C., Williams, B., Silverman, R. and **Schiff, L.A.** (**2005**) Involvement of the interferon-regulated antiviral proteins PKR and RNase L in reovirus-induced shutoff of host translation. *J. Virol.* **79(4)**: 2240-2250.
28. Nibert, M.L., Odegard, A.L., Agosto, M.A., Chandran, K. and **Schiff, L.A.** (**2005**) Autocleavage of reovirus $m1$ protein in concert with outer-capsid disassembly and activation for membrane permeabilization. *J. Mol. Biol.* **345(3)**:461-74.
29. Golden, J.W. and **Schiff, L.A.** (**2005**) Neutrophil elastase, an acid-independent serine protease, facilitates reovirus uncoating and infection in U937 promonocyte cells. *Virology Journal* **2(48)**.
30. Smith, J.S., Schmechel, S.C., Raghavan, A., Abelson, M., Reilly, C., Katze, M.G., Kaufman, R.J., Bohjanen, P.R. and **Schiff, L.A.** (**2006**). Reovirus induces and benefits from a cellular integrated stress response. *J. Virol.* **80(4)**: 2019-2033. (**selected for inclusion in JVI Spotlight**)
31. **Schiff, L**, Nibert, M.L. and Tyler, K. (**2006**) Reoviruses. In: *Fields Virology*. Knipe, Howley, eds. LWW, publishers.
32. Goodman, A.G., Smith, J.A., Balachandran, S., Perwitawari, O., Proll, S.C., Thomas, M.J., Korth, M.J., Barber, G.N., **Schiff, L.A.** and Katze, M.G. (**2007**). The cellular protein P58IPK regulates influenza virus mRNA translation and replication through a PKR-mediated mechanism. *J. Virol.* **81(5)**: 2221-2230. (**selected for inclusion in JVI Spotlight**)
33. Alain, T., Kim, T.S., Lun, X., Liacini, A, **Schiff, L.A.**, Senger, D.L. and Forsyth, P.A. (**2007**). Proteolytic disassembly is a critical determinant for reovirus oncolysis. *Molecular Therapy* **15(8)**: 1512-1521.
34. **Schiff, L** (**2008**). Structure and Functions of the Orthoreovirus $\sigma 3$ Protein. In: *Segmented Double-Stranded RNA viruses: Structure and Molecular Biology*, Patton, ed. Calister Academic Press
35. Nygaard, R., Golden, Joseph W., and **Schiff, L.A.** (**2012**). Impact of Host Proteases on Reovirus Infection in the Respiratory Tract. *J. Virol.* **86(2)**: 1238-1243
36. Schulz, W.L., Haj, A.K. and **Schiff, L.A.** (**2012**). Reovirus Uses Multiple Endocytic Pathways for Cell Entry, *J. Virol.* **86(23)**: 12665-12675
37. Nygaard, R.M., Lahti, L., Boehme, K.W., Ikizler, M., Doyle, R.D., Dermody, T.S., and **Schiff, L.A.** (**2013**) Genetic Determinants of Reovirus Pathogenesis in a Murine Model of Respiratory Infection, *J. Virol.* **87(16)**: 9279-9289

List of awards and honors related to teaching, including training grants and committee chairs/memberships

Awards

University of Minnesota President's Distinguished Faculty Mentor Award, 2000

University of Minnesota Center for Interdisciplinary Study of Writing Award for Excellence in the Teaching of Writing, 2001

Horace T. Morse University of Minnesota Alumni Association Award for Outstanding Contributions to Undergraduate Education, 2002

Convocation Speaker, University of Minnesota, 2003

Senior Teaching Fellow, University of Minnesota, 2003

Carski Foundation Distinguished Teaching Award, American Society for Microbiology, 2004

Committee on Institutional Cooperation Academic Leadership Fellow, 2007-2008

American Academy of Microbiology Fellow, 2009

Academic Health Center Academy for Excellence in the Scholarship of Teaching and Learning, 2014

Grants

NSF REU (Research Experiences for Undergraduates): Microbiology—From Atoms to Ecosystems at the University of Minnesota (2008-2011). Role: Principal Investigator

This grant was focused on offering undergraduate research experiences at the University of Minnesota to under-represented minority students from other institutions around the country.

NSF-TUES II(Transforming Undergraduate Education) application, prepared in collaboration with colleagues at Duke University, Morgan State and UNC-CH: Understanding the Role of Writing in Promoting Learning and Engagement in Diverse Undergraduate Thesis Writers; DUE-1225608 (2013-15). Role: Co-Principal Investigator

This grant focuses on understanding the mechanisms by which writing improves student learning in the STEM disciplines and brings together faculty to understand how best to support cognitive and metacognitive growth in STEM undergraduate thesis writers.

Committee Involvement (selected, with focus on University-level)

Invited participant in National Science Foundation Project Kaleidoscope Invitational Symposium: Faculty for the 21st Century, 1991 and 1992

Task Force Member for Project Kaleidoscope Research-Rich Environment Workshop, 1992

Faculty Writing Consultant (representing the Department of Microbiology) for the Center for Interdisciplinary Studies of Writing, University of Minnesota, 2001

Faculty Writing Consultant (representing the College of Biological Sciences) for the Center for Writing, 2003

University Strategic Positioning Task Force on Undergraduate Reform: Honors, 2005

University Strategic Positioning Task Force on Undergraduate Reform: Writing; member of working group on Writing Across the Curriculum, 2005

Member, American Society for Virology Education Committee, 2004-7

Chair, University of Minnesota Council on Liberal Education, 2006-8; charged with reviewing and revising UMTC liberal education requirements; Member, Council on Liberal Education, 2008-2010

Chair, Vice Provost's working group on Liberal Education Assessment, 2009-2010

Member, Vice Provost's Curricular Initiatives Steering Committee, 2008-2009

Working group member, Reinvention Center-NSF initiative to assess writing as a means to promote critical thinking in the STEM disciplines, 2008-2010

Liaison for the College of Biological Sciences effort to develop a Writing Enriched Curriculum (as part of a Bush Foundation grant awarded to the U of MN)

Provost's Committee on Student Mental Health (representative for the faculty), 2010-2011

Senate Committee on Educational Policy, 2011-2013

University Curriculum Committee, 2012-2013

Courses taught:

MicB 8421: Virology and Tumor Biology (graduate level), 1990-1999

MicB 5425: Virology and Molecular Genetics Laboratory (undergraduate level), 1990-1999

MicB 5205: Microbiology for Medical Students, 1998-1999

MIMP 8002: Structure, Function, and Genetics of Bacteria and Viruses (graduate level), 2000-2005 [*team taught: 6 contact hours*]

MICaB 8010: Microbial Pathogenesis (graduate level), 2001-2007 [*team taught: 4 contact hours*]

Grad 8101: Teaching in Higher Education (graduate and post-graduate level), 2002

Grad 8200: Active Learning and Course Design in the Sciences (graduate and postgraduate level), 2004

MicB 4141W: Biology, Genetics and Pathogenesis of Viruses (undergraduate level, *Writing Intensive*) 2000-present, [*sole responsibility: 44 contact hours, enrollment ~12*]

MicB 4171: Biology, Genetics and Pathogenesis of Viruses (undergraduate level, non-writing intensive) 2004-present, [*sole responsibility: 38 contact hours, enrollment ~40*]

Biol 4960H/4961H: Thesis writing support, 2010-present (curriculum for support of capstone writing; weekly meetings provide instruction on disciplinary writing but more significantly, scaffolding for thesis process, since the responsibility for one-on-one writing instruction lies with the students faculty research mentor)

Seminars or panel discussions at national meetings (education-related):

Carski Award Lecture, ASM Annual Meeting: "Cell Phones, CNN, TiVo and Teaching: Educational Challenges in these Digital Times", 2004

"Constructing Legitimacy and News Value in Scientific and Popular Science Genres", at the National Communication Association annual meeting with Laura Gurak, Zoe Nyssa and Carol Berken, Department of Rhetoric, 2006

Reinvention Center, Access and Success: Undergraduate Education in the 21st Century: "Using Writing to Enhance Learning and Critical Thinking in Disciplinary Courses", 2012

International Writing Across the Curriculum Conference: Panel Discussion "Mapping Waves, Bridging Shifts: Disciplinary Faculty Take on Whole Curricula", 2014

Workshops (partial list):

Presenter at teaching enhancement workshops sponsored by the University of Minnesota Center for Teaching and Learning Services and the Center for Writing: *Less Yields More: Using Short Writings in Writing Intensive Courses*, Winter 2000 and Fall 2001; *Using Technology to Enhance Learning and Teaching Objectives*, Spring 2001; *Enhancing Large Lecture Courses: A Showcase*, Fall 2001; *Enhancing Large Lecture Courses: Continuing the Discussion*, Fall 2001; *Making Use of Short and Informal Writing Assignments*, Fall 2002, Fall 2003, and Fall 2004; *Teaching Writing One-on-One*, Fall 2003; *Grading Writing*, Fall, 2003; *Writing-to-Learn*, Fall 2003; *Teaching with Writing Online*, Fall, 2005; *Designing writing assignments that promote learning*, Fall 2005; *Incorporating writing instruction into "content" courses*, Spring 2006; *Teaching with Writing Online and Grammar matters*, Fall 2006; *What's Grammar Got To Do With It*, Spring 2007; *Grading Student Writing*, Spring 2008, *Senior Projects*, Spring 2009; Handling the Paper Load in CBS Lab and Lecture Courses (Systems Towards Effective Grading & Commenting on Student Writing, Spring 2011; *Senior Seminars, Senior Papers, Senior Projects: Structuring Capstone-Level Writing Experiences*, Spring 2012; *Grading Rubrics: The Good, the Bad, the Ugly: Get Ready*, November 2013; *Elements of the Effective Capstone Experience*, November 2014

Workshops at University of Minnesota Academy of Distinguished Teachers Retreat:

Co-chair Academy of Distinguished Teachers workshop at 2005 and 2006 retreat: "Students, They Are A'Changin'" with Laura Coffin Koch

Co-chair Academy of Distinguished Teachers workshop: "Diverse Learners, Diverse Teaching, Diverse Outcomes", with Pareena Lawrence

Working group member, Reinvention Center-NSF initiative to assess writing as a means to promote critical thinking in the STEM disciplines, 2008-2014