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Residential College Office:
Lyman Briggs College
W-26D Holmes Hall, 919 E Shaw Lane
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CF & STEM Research Lab:
Department of Physiology
2140 BPS, 567 Wilson Road
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EDUCATION:

Ph.D., *University of Virginia*, Molecular Physiology (PI: Kunio Takeyasu, Ph.D.). 1992
B.S., *Pennsylvania State University*, Biology (Advisor: Theodore Hollis, Ph.D.). 1987

Other

Certificats, *Université Paris Sorbonne-Paris IV*, Cours Civilisation Française. 2007, 2008
Lilly Teaching Fellowship, Office of the Provost, Michigan State University. 1999-2000
Postdoctoral Fellow, *Stanford University*, CF Laboratory (PI: Dr. Jeffrey Wine). 1996

ACADEMIC PROFESSIONAL EXPERIENCE:

Michigan State University, East Lansing MI

Associate Professor. Research: Effect of chemical correctors on ion flux and extracellular pH with a focus on ABC transporters and the disease cystic fibrosis. Department of Physiology. 2002-present

Associate Professor. Research: Impact of visual assessment tools, interdisciplinary curricula, use of inquiry, and study abroad experiences on student learning. Lyman Briggs College. 2002-present

Assistant Professor. Lyman Briggs School (prior name) and Department of Physiology. 1996-2002

Cité Internationale Universitaire De Paris, Paris, France

Study Abroad Leader. Taught undergraduates and pursued education research. Michigan State University Education Abroad program. Cité Internationale Universitaire de Paris. 2007, 2010, 2015, 2017

Davidson College, Davidson NC

Research Fellow. Studied pedagogy and biology education research during sabbatical. Department of Biology, laboratories of Malcolm Campbell, Ph.D. and Christopher Paradise, Ph.D. 2015-2016

Université Paris Sorbonne-Paris IV, Paris, France

Sabbatical Fellow. Studied language, culture and education. Cours de Civilisation Française de la Sorbonne (CCFS). Foundation Robert de Sorbon, Université Paris Sorbonne-Paris IV. 2008

Stanford University, Palo Alto CA

Postdoctoral Research Fellow. Studied the cystic fibrosis channel (CFTR) and the cancer protein P-glycoprotein (PGP). Cystic Fibrosis Research Laboratory (CFRL) of Jeffrey Wine, Ph.D. 1992-1996

University of Maryland at Baltimore, Baltimore MD

Graduate Research Fellow. Studied calcium binding-site localization in SR Ca-ATPase and chimeric constructs. The Department of Biochemistry & Molecular Biology, laboratory of Guiseppe Inesi, Ph.D. 1991

University of Virginia, Charlottesville VA

Graduate Studies. Studied ion-binding in chimeric constructs of the Na/K-ATPase & Ca-ATPase. Department of Physiology, laboratories of Kunio Takeyasu, Ph.D. and Howard Kutchai, Ph.D. 1989-1992

TEACHING AWARDS:

- *Senior Class Council Outstanding Faculty Award* (awarded to five MSU faculty) nominated by seniors of the university and then chosen by student government, the Associated Students of Michigan State University. 2017
- *Honorary Member of Graduating Class* (honorable mention) from seniors of MSU Lyman Briggs College. 2017
- *Mid-Michigan Quality in Undergraduate Teaching Award* (awarded to one MSU faculty) from MSU Alumni Club of Mid-Michigan. 2015
- *MSU Curricular Service-Learning Award* (awarded to one MSU faculty) from Michigan State University. 2011
- *Graduation Faculty Speaker* (honor to one LBC faculty) from MSU Lyman Briggs College. 2003, 2007
- *Honorary Member of the Graduating Class* (awarded to one LBC faculty) from seniors of MSU Lyman Briggs College. 1999, 2000, 2001, 2002, 2005
- *Golden Key Faculty Award* (awarded to one MSU faculty) from MSU Golden Key Honour Society. 2001
- *MSU Teacher-Scholar Award* (awarded to five MSU faculty) from Michigan State University. 2001
- *Outstanding Faculty Member Award* (awarded to one MSU faculty) from MSU Department of Athletics. 2001
- *CNS Teacher-Scholar Award* (awarded to two CNS faculty) from MSU College of Natural Science. 2000

MENTORING HONORS:

- *Disciplinary Mentor* to Dr. Kendra Cheruvelil, Ph.D. for 2-year Gateway Fellow Program at MSU. 2014-2016
- *Lilly Faculty Mentor* to Dr. Cori Fata-Hartley, Ph.D. for 1-year Lilly Teaching Fellowship at MSU. 2006-2007
- *Faculty Mentor* for Drew Fellows URM Research Program and the Johnson Scholars Underrepresented Undergraduate Student Research Program at MSU. 2000, 2001, 2005, 2006, 2007
- *Faculty Mentor* for Howard Hughes Medical Institute Undergraduate Research Scholars and the Professorial Assistants programs at MSU. 2000, 2001, 2002, 2003, 2004, 2005, 2007
- *Mimi M.A. Sayed Faculty Mentoring Award* (to one LBC faculty) from Briggs Students of Color (BSC). 2002

TEACHING EXPERIENCE:

Cité Internationale Universitaire De Paris, Paris, France

Coordinator and co-lecturer for MSU *History of Science in Europe* Study Abroad ($\bar{x}$=15 students, taught 4 times)

Arguments and Evidence in Paris Senior undergraduate seminar examining controversies in science

Science of Art & Art of Science Junior undergraduate laboratory detecting traces of DNA in art

Paris: Intersection of Culture, Religion & Art Junior undergraduate seminar on Islamic and Christian history

Michigan State University, East Lansing, MI

Introductory Cell, Molecular and Organismal Biology A two semester lecture and laboratory course that strives to weave together Biology I (organismal) and Biology II (molecular & cellular) topics and incorporate novel pedagogies. e.g. examination of original data figures from publications ($\bar{x}$=100 students, taught 2 times)

Biology I. Introductory Organismal Biology Freshman undergraduate lecture and laboratory overview of plant and animal biology from an organismal perspective ($\bar{x}$=120 students, taught 3 times)

Biology II. Introductory Cellular and Molecular Biology Sophomore undergraduate lecture and laboratory overview of plant and animal biology, from cell & molecular perspective ($\bar{x}$=100 students, taught 10+ times)

BRAID Seminar Sophomore undergraduate course taught by three faculty, examined global and societal problems from disciplinary perspectives (funded by National Science Foundation) ($\bar{x}$=20 students, taught 4 times)

Senior Seminar Senior undergraduate capstone course, students complete their senior thesis by documenting in film an analysis of controversies in science and the media ($\bar{x}$=15 students, taught 8 times)

Advances in Applied Biology Sophomore undergraduate laboratory "internship" course that engages students in evaluating literature and performing independent research ($\bar{x}$=12 students, taught 5 times)

Topics in Respiratory Physiology Senior/junior undergraduate course taught by two faculty, examined respiratory physiology at molecular, cellular and organismal levels. ($\bar{x}$=15 students, taught 2 times)

Science Changing Society Sophomore undergraduate seminar course, co-lecturer with Drs. Alice Dreger, Stephen J. Gould, Daniel Kleppner, Ruth Hubbard, Anne McLaren and NPR commentator Ira Flatow (funded by *McPherson* Endowment for the Public Understanding of Science) (n=20 students, taught 1 time)

Biological Applications of C++ programming Junior undergraduate course teaching C++ coding for biology modeling, co-lecturer with Frank Dolinar and William Simpson, Ph.D. (n=15 students, taught 1 time)

Stanford University, Stanford, CA

The Science, Ethics and Politics of Human Gene Therapy Adult student evening continuing education survey course on gene therapy. Continuing Studies Program (n=22 students, taught 1 time)

Human Gene Therapy Senior/junior undergraduate course on research and ethics of human gene therapy. Inaugural lecture given by Nobel laureate Paul Berg, Ph.D. Human Biology Program (n=17 students, taught 1 time)

Across the Membrane: The Biology of Ion Transport [Lead Professor Jeffrey J. Wine, Ph.D.]. Guest lecturer in several class meetings of undergraduate course in cellular biology of membrane transporters. Department of Psychology (n=25 students, taught 1 time)

University of California at Berkeley, Berkeley, CA

Mechanisms of Molecular Transport [Instructor Kimberly L. Boyd, Ph.D.]. Guest lecturer for an advanced undergraduate course on research on genomic mutations in membrane transporter genes. Department of Biology (n=25 students, taught 1 time)

RESEARCH GRANTS:

Science Education Research

MSU Lyman Briggs College LAUNCH Fund, *BroadView: Impact of study abroad on student intercultural competence*. PI: Douglas Luckie, $850. 2017-2019

MSU Lyman Briggs College Trajectory Fund, *BioCore*. PI: Douglas Luckie, $10,000. 2015-2016

MSU Lyman Briggs College PILOT Fund, *Davidson STEM Research*. PI: Douglas Luckie, $2,500. 2015-2016

National Science Foundation, Transforming Undergraduate Education in STEM (TUES) Program, *BRAID 2.0: Bringing Relationships Alive through Interdisciplinary Discourse*. PI: Ryan Sweeder, Co-PIs: Douglas Luckie, Rich Bellon, Elizabeth Simmons, $249,974. 2010-2014

National Science Foundation, Course Curriculum Laboratory Improvement (CCLI) Program, *BRAID: Bridging the Disciplines with Authentic Inquiry & Discourse*. PI: Ryan Sweeder, Co-PIs: Douglas Luckie, Elizabeth Simmons, $149,904. 2007-2010

National Science Foundation, Course Curriculum Laboratory Improvement (CCLI) Program, *GUIDE: Guidance for Undergraduates in Developing Exemplars of Systems*. PI: Douglas Luckie, Co-PIs: Diane Ebert-May and Duncan Sibley, $32,172 (supplement). 2006-2007

MSU Quality Fund, *BRAID: Bridging the Disciplines with Authentic Inquiry & Discourse*. PI: Douglas Luckie, Co-PIs: Ryan Sweeder, Elizabeth Simmons, Jim Smith, Sabrina Keller, $131,761. 2005-2008

National Science Foundation, Assessment of Student Achievement (ASA) Program, *C-TOOLS: Concept-Connector Tools for Online Learning in Science*. PI: Douglas Luckie, Co-PIs: Janet Batzli, Diane Ebert-May, $356,434. 2002-2006

MSU College of Natural Science Fund, *Creating the LBS Media Lab*. PI: Douglas Luckie, $8,356. 2003-2004

Office of the Provost Eli Lilly Teaching Fellow Fund, *Bridging the Disciplines with Critical Thinking*. PI: Douglas Luckie, $7,000. 1999-2000

MSU Technology Guarantee Fund, *iLab*. PI: Douglas Luckie, $20,356. 1999-2000

Physiology Research

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Correctors testing for CF*. PI: Douglas Luckie, $5,000. 2017-2020

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *CF treatments in the Cytosensor*. PI: Douglas Luckie, $10,000. 2016-2019

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Do new drug treatments also correct the abnormal pH exhibited in CF?* PI: Douglas Luckie, $5,000. 2015-2018

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Testing FDA-approved CF treatments in the Cytosensor*. PI: Douglas Luckie, $12,000. 2014-2017

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Cause-effect relationship between the mutation and acidification*. PI: Douglas Luckie, $12,000. 2013-2016

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Corrector studies of CFTR function*. PI: Douglas Luckie, $10,000. 2012-2015

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Chemical chaperone studies of CFTR function 2.0*. PI: Douglas Luckie, $9,000. 2011-2014

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Chemical chaperone studies of CFTR function in airway epithelia*. PI: Douglas Luckie, $8,000. 2010-2013

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *LPS stimulated CFTR function in airway pathogen Pseudomonas*. PI: Douglas Luckie, $5,500. 2009-2012

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Evolution of airway pathogen Pseudomonas aureginosa*. PI: Douglas Luckie, $13,000. 2008-2011

MSU REF Center for Microbial Pathogenesis, *Host specificity and evolution of pathogenesis in Burkholderia II*. PI: Douglas Luckie, $4,000. 2008-2009

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Evolution of Burkholderia in the disease cystic fibrosis*. PI: Douglas Luckie, $4,000. 2007-2010

MSU REF Center for Microbial Pathogenesis, *Host specificity and evolution of pathogenesis in Burkholderia cenocepacia*. PI: Douglas Luckie, $4,000. 2007-2009

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Characterizing chemical chaperones as treatments for cystic fibrosis*. PI: Douglas Luckie, $7,000. 2006-2009

Cystic Fibrosis Foundation, Pilot and Feasibility Award, *Microphysiometry: An Assay for the Correction of CF*. PI: Douglas Luckie, $48,000. 1998-2000

Molecular Devices Corporation, Academic Grant Program, *Microphysiometry Technology*. PI: Douglas Luckie, $14,400. 1998-1999

MSU Biotechnology Research Center Fund, *Microphysiometry: A New Assay for the Correction of Cystic Fibrosis*. PI: Douglas Luckie $25,000. 1997-1998

MSU Biotechnology Fund, *Microphysiometry studies of CF*. PI: Douglas Luckie, $29,750. 1997-1998

National Institute of Health, National Institute of Diabetes and Digestive and Kidney Diseases, NRSA Award, *Bifunctional Studies of ABC Transporters*. PI: Douglas Luckie, $58,500. 1994-1996

Cystic Fibrosis Foundation, Postdoctoral Research Fellowship, *Chimeric studies of CFTR*. PI: Jeffrey J. Wine, Fellow: Douglas Luckie, $53,500. 1992-1994

PUBLICATIONS (undergraduate students underlined):

Science Education Research

Book Chapters

1. Ebert-May, D., Williams, K., **Luckie, D**. & Hodder, J. (2008). Climate change: confronting student ideas. In D. Ebert-May & J. Hodder J, (Eds.), *Pathways to Scientific Teaching* (pp 21-22). Sunderland, MA: Sinauer Associates, Inc.
2. Hodder, J., Ebert-May, D., Williams, K. & **Luckie, D**. (2008). Marine pathology: revealing the ocean's etiology to earthbound students. In D. Ebert-May & J. Hodder J, (Eds.), *Pathways to Scientific Teaching* (pp 31-32). Sunderland, MA: Sinauer Associates, Inc.
3. Ebert-May, D., Williams, K.S., Weber, E.P., Hodder, J. & **Luckie, D**. (2008). Practicing scientific inquiry: what are the rules? In D. Ebert-May & J. Hodder J, (Eds.), *Pathways to Scientific Teaching* (pp 47-48). Sunderland, MA: Sinauer Associates, Inc.
4. Williams, K.S., Ebert-May, D., **Luckie**, D. & Hodder, J. (2008). Ecological controversy: analysis to synthesis. In D. Ebert-May & J. Hodder J, (Eds.), *Pathways to Scientific Teaching* (pp 59-60). Sunderland, MA: Sinauer Associates, Inc.
5. Williams, K.S., Ebert-May, D., **Luckie**, D., Hodder, J. & Koptur, S. (2008). Novel assessments: detecting success in student learning. In D. Ebert-May & J. Hodder J, (Eds.), *Pathways to Scientific Teaching* (pp 115-116). Sunderland, MA: Sinauer Associates, Inc.
6. Ebert-May, D., Hodder, J., Weber, E. & **Luckie, D**. (2008). Unleashing problem solvers: from assessment to designing research. In D. Ebert-May & J. Hodder J, (Eds.), *Pathways to Scientific Teaching* (pp 133-134). Sunderland, MA: Sinauer Associates, Inc.

Articles

1. **Luckie, D.B**., Hoskinson, A.M., Griffin C.E., Hess A.L, Price, K.J., Tawa, A. & Thacker S.M. (2017). Integrating concepts in biology textbook increases learning: assessment triangulation using concept inventory, card sorting, and MCAT instruments, followed by longitudinal tracking. *CBE-Life Sciencse Education*, *(16)*20, 1-10.
2. Valles, S.A., **Luckie, D.B.,** Montgomery, G.M., Simmons, E.H., Sweeder R.D., & Zeleke A. (2016). Updating the two cultures: how structures can promote interdisciplinary cultures. *Change: Magazine of Higher Learning, (48)*6, 28-35.
3. **Luckie, D.B.,** Rivkin, A.M., Aubry, J.R., Marengo, B.J., Creech, L.R. & Sweeder , R.D. (2013). Verbal final exam in introductory biology yields gains in student content knowledge and longitudinal performance. *CBE-Life Sciences Education, 12*(3), 515-529.
4. **Luckie**, **D.B.,** Smith, J.J., Cheruvelil, K.S., Fata-Hartley, C., Murphy, C.A. & Urquhart, G.R. (2013). The "anti-cookbook laboratory": converting "canned" introductory biology laboratories to multi-week independent investigations. *Studies for Laboratory Teaching: Proceedings of the Assn for Biology Laboratory Education, 3,* 196-213.
5. **Luckie, D.B.,** Bellon, R. & Sweeder, R. (2013). Bringing relationships alive through interdisciplinary discourse (BRAID). *International Journal of Pedagogy and Curriculum, 19*(3), 133-144.
6. **Luckie, D.B.,** Aubry, J.R., Rivkin, A.M., Marengo, B.J., Foos, L.A. & Maleszewski, J.J. (2012). Less teaching, more learning: a 10-year study supports increases in inquiry alongside decreases in "coverage" yield steady gains in student learning of science. *Advances in Physiology Education*, 36, 325–335. ***Selected as "Editor's Pick"***
7. **Luckie**, D.B., Bellon, R. & Sweeder, R.D. (2012). The "BRAID": experiments in stitching together disciplines at a Big 10 University, *Journal of STEM Education, 13*(2), 6-14.
8. **Luckie, D.B.** (2012). A faculty cocktail as treatment: unearthing pedagogies that promote interdisciplinary learning and habits of mind. *Invited paper for the CITL Conference* at Michigan State University, East Lansing, MI (white paper).
9. Newell, W.H. & **Luckie, D.B.** (2012). Pedagogy for interdisciplinary habits of mind. *Proceedings of CITL Conference*, Michigan State University, East Lansing, MI.

10. **Luckie**, **D.B.,** Harrison S.H. & D. Ebert-May (2011). Model-based reasoning: creating visual tools to reveal student learning, *Advances in Physiology Education*, *35*(1): 59-67.
11. **Luckie, D.B.,** Harrison, S.H., Wallace, J.L. & Ebert-May, D. (2008). Studying C-TOOLS: automated grading for online concept maps. *Conference Proceedings from Conceptual Assessment in Biology II, 2*(6): 101-110.
12. **Luckie, D.B.** & Ebert-May, D. (2007) C-TOOLS: concept-connector tools for online learning in science. *Conference Proceedings from Conceptual Assessment in Biology 1*(6): 1-4.
13. Hodder, J., Ebert-May, D., Williams, K. & **Luckie, D.** (2005). Unraveling complexity: building an understanding of Everglades restoration. *Frontiers in Ecology and the Environment*, *3*(3), 170-171.
14. Ebert-May, D., Hodder, J., Weber, E. & **Luckie, D.** (2005). Unleashing problem solvers: from assessment to designing research. *Frontiers in Ecology and the Environment, 3*(2), 101-102.
15. **Luckie, D.B**., Krha, M., Loznak S.D. & Maleszewski, J.J. (2004). The infusion of collaborative inquiry throughout a biology curriculum increases student learning: a four-year study of Teams & Streams. *Advances in Physiology Education, 28*(1-4), 199-209.
16. Ebert-May, D., Williams, K., **Luckie, D.** & Hodder, J. (2004). Structured controversy: students synthesize, instructors analyze. *Frontiers in Ecology and the Environment, 10*(2), 326-327.
17. Ebert-May, D., Williams, K.S., Weber, E.P., Hodder, J. & **Luckie, D.** (2004). Practicing scientific inquiry: what are the rules? *Frontiers in Ecology and the Environment, 9*(2), 492-493.
18. Williams, K.S., Ebert-May, D., **Luckie, D.,** Hodder, J. & Koptur, S. (2004). Novel assessments: detecting success in student learning? *Frontiers in Ecology and the Environment, 8*(2), 444-445.
19. **Luckie, D**., Harrison, S. & Ebert-May, D. (2004). Introduction to C-TOOLS: concept mapping tools for online learning. In J. Canas, J.D. Novak & F.M. *Gonzalez (Eds.). Concept Maps: Theory, Methodology, Technology. Proceedings from First International Conference on Concept Mapping*, *2*, 261-264.
20. Harrison, S.H., Wallace, J., Ebert-May, D. & **Luckie, D.** (2004) C-TOOLS automated grading for online concept maps works well with a little help from "WordNet," In J. Canas, J.D. Novak & F.M. *Gonzalez (Eds.). Concept Maps: Theory, Methodology, Technology. Proceedings from First International Conference on Concept Mapping*, *2*, 211-214.
21. Hodder, J., Ebert-May, D., Williams, K. & **Luckie, D.** (2004). Marine pathology: revealing the ocean's etiology to earthbound students. *Frontiers in Ecology and the Environment, 7*(2), 383-384.
22. Ebert-May, D., Hodder, J., Williams, K. & **Luckie, D.** (2004). Pathways to scientific teaching, *Frontiers in Ecology and the Environment, 6*(2), 323.
23. Ebert-May, D., Williams, K., **Luckie, D.**, & Hodder, J. (2004). Climate change: confronting student ideas, *Frontiers in Ecology and the Environment, 6*(2): 324-325.
24. **Luckie D.B**. & Maleszewski, J.J. (2004). The infusion of collaborative independent investigations throughout a biology curriculum – "Teams, Streams & Inquiry". *Proceedings from 89th Annual Meeting of the Ecology Society of America*, 310A. Portland, Oregon.
25. **Luckie, D.B**., Batzli, J.M., Harrison, S. & Ebert-May, D. (2003). C-TOOLS: concept-connector tools for online learning in science. *International Journal of Learning, 10*, 332-338.
26. **Luckie, D.B.** (2003) C-TOOLS: concept-connector tools for online learning in science. *Proceedings from Learning Conference, The 10th International Literacy & Education Research Conference on Learning*. London, England.
27. Maleszewski, J.J. & **Luckie, D.B.** (2003) Streaming through a freshman biology laboratory: converting short individual "cookbook" lab exercises into long group inquiry "streams." *Proceedings from* AAAS Annual Meeting, Denver, CO.
28. Wilterding, J.H. & **Luckie, D.B.** (2002) Increasing student-initiated active learning with investigative 'streams:' a molecular biology example. *Journal of College Science Teaching 31*(5), 303-307.

Physiology Research

Book Chapters

1. **Luckie, D.B.**, Boyd, K.L., Mizushima, A., Shao, Z., Somlyo, A. & Takeyasu, K. (1991). Identification of ouabain-binding and Ca-stimulation domains in Na- and Ca-pump chimeric molecules. In J.H. Kaplan & P. DeWeer, (Eds.), *The Sodium Pump: Recent Developments*, (pp 237-242). New York: Rockefeller University Press.

Reviews

1. **Luckie, D.B.**, Wilterding, J.H., Krha, M. & Krouse, M.E. (2003). CFTR and MDR: ABC transporters with homologous structure but divergent function. *Current Genomics, 4*(3), 109-121.
2. **Luckie, D.B.** & Wine, J.J. (1996). Cell volume regulation: P-glycoprotein- a cautionary tale. *Current Biology, 6*(11), 1410-1412.

Articles

1. Marquette, C.R. & **Luckie, D.B.** (2016). Dissection of a mechanistic controversy in cystic fibrosis, *JSM Genetics and Genomics, 3*(2), 1-11.
2. **Luckie**, D.B., Van Alst, A.J., Massey, M.K., Flood, R.D., Shah, A.A., Malhotra, V. & Kozel, B.J. (2014). Chemical rescue of ΔF508-CFTR in C127 epithelial cells reverses aberrant extracellular pH acidification to wild-type alkalization as monitored by microphysiometry. *Biochemical and Biophysical Research Communications, 451*(4), 535-540.
3. **Luckie, D.B**. & Krouse, M.E. (2012). Cystic fibrosis: does CFTR malfunction alter pH malfunction? *Genetic Disorders*, *12*, 319-344.
4. Haenisch, M.D., Ciche T.A. & **Luckie, D.B.** (2010). Pseudomonas or LPS exposure alters CFTR iodide efflux in 2WT2 epithelial cells with time and dose dependence. *Biochemical and Biophysical Research Communications, 394(*4), 1087-1092.
5. Haenisch, M.D. & **Luckie, D.B.** (2009). Exposure to P. aeruginosa and purified LPS alter CFTR-dependent ion conductance in cultured 2WT2 epithelial cells in a time and dose dependent fashion. [Abstract]. 2009 North American Cystic Fibrosis Conference. *Pediatric Pulmonology*, Suppl. *32*, 258-259.
6. Hootman, S.R., Hobbs, E.C. & **Luckie, D.B.** (2005). Direct measurement of acid efflux from isolated guinea pig pancreatic ducts. *Pancreas, 30*(4), 363-368.
7. **Luckie, D.B**., Wilterding, J.H., Krha, M. & Krouse, M.E. (2003). CFTR and MDR: ABC transporters with homologous structure but divergent function. *Current Genomics, 4*(3), 109-121.
8. Krha, M., Flood, R.D., Kozel B.J., Shah A.A., Malhotra V. & **D.B. Luckie** (2002). CFTR expression at the cell surface decreases extracellular acidification of pH as monitored by Microphysiometry. [Abstract]. 2002 North American Cystic Fibrosis Conference. *Pediatric Pulmonology*, Suppl. *24*, 205A.
9. **Luckie, D.B.**, Wilterding, J.H., Maleszewski, J.J., Hobbs, E.C. & Olson, L.K. (2002). Extracellular acidification parallels insulin secretion in INS-1 and HIT-T15 ß-cell lines. *Biochemical and Biophysical Research Communications, 293*(4), 1168-1173.
10. Hootman, S.R. & **Luckie, D.B.** (2001). Mitogen-activated protein kinases in the pancreatic duct system. [Abstract]. 2001 Annual Meeting of the American Pancreatic Association, *Pancreas, 8*, 331A.
11. **Luckie, D.B.**, Singh, C.N., Wine, J.J. & Wilterding, J.H. (2001). CFTR activation raises extracellular pH of NIH/3T3 mouse fibroblasts and C127 epithelial cells. *Journal of Membrane Biology, 179*, 275-284.
12. Hootman, S.R., Hobbs, E.C. & **Luckie, D.B.** (1999). Direct measurement of proton efflux from isolated guinea pig pancreatic ducts. [Abstract]. 1999 Annual Meeting of the American Pancreatic Association *Pancreas 19*, 424A
13. **Luckie**, D.B., Maleszewski, J.J., Hobbs, E.C., Wilterding, J.H. & Olson, L.K. (1999). Extracellular acidification parallels insulin secretion in pancreatic beta cell lines (INS-1 and HIT). [Abstract]. 1999 North American Cystic Fibrosis Conference. *Pediatric Pulmonology*, Suppl. *19*, 255A.
14. **Luckie, D.B.** & Wine, J.J. (1998). CFTR expression can change extracellular pH. [Abstract]. 1998 North American Cystic Fibrosis Conference. *Pediatric Pulmonology*, Suppl. *16*, 226A.

15. Olson, L.K., Wine, J.J. & **Luckie, D.B.** (1998). pH-based detection of defects in cystic fibrosis and diabetes. [Abstract]. *International Cell Analysis Products Conference Report*, *2*, 112A.
16. **Luckie, D.B.**, Krouse, M.E., Law, T.C., Sikic, B.I. & Wine, J.J. (1996). Doxorubicin selection for MDR1/P-glycoprotein reduces swelling-activated K+ and Cl- currents in MES-SA cells. *American Journal of Physiology-Cell Physiology, 270*(4), C1029-C1036.
17. **Luckie**, D.B., Pitchford, S. & Wine, J.J. (1995). CFTR may alter extracellular pH by inhibition of the Na/H exchanger, a cytosensor study. [Abstract]. 1995 North American Cystic Fibrosis Conference. *Pediatric Pulmonology*, Suppl. *12*, 181A.
18. **Luckie, D.B.** & Wine, J.J. (1995). Epithelial cells expressing wild type CFTR have lower steady state and stimulated acid efflux rates than cells expressing mutant CFTR. [Abstract]. 1995 Conference of the Biophysics Society. *Biophysical Journal, 68*(2), A272.
19. **Luckie, D.B.**, Harper, K.L., Krouse, M.E., Law, T.C., Sikic, B. & Wine, J.J. (1995). MDR/P-glycoprotein expression is associated with reduced swelling-activated K+ and Cl- efflux in Messa and DX5 cells. 1995 Conference of the Biophysics Society. *Biophysical Journal, 68*(2), A273.
20. **Luckie, DB.**, Krouse, M.E., Harper, K.L, Law, T.C. & Wine, J.J. (1994). Selection for MDR/P-glycoprotein enhances swelling-activated K+ and Cl- currents in NIH/3T3 cells. *American Journal of Physiology-Cell Physiology, 267*(2 36-2), C650-C658.
21. Krouse, M.E., **Luckie, D.B.**, Harper, K.L., Law, T.C., Sikic, B.I. & Wine, J.J. (1993). MDR/P-glycoprotein expression facilitates swelling Cl- current activation but is probably not the channel. [Abstract]. 1993 North American Cystic Fibrosis Conference. *Pediatric Pulmonology*, Suppl. *9*, 1A.
22. **Luckie, D.B.**, Lemas, V., Boyd, K.L., Fambrough, D.M. & Takeyasu, K. (1992). Molecular dissection of functional domains of the E1E2-ATPases using sodium and calcium pump chimeric molecules. *Biophysical Journal, 62*, 227-234.
23. **Luckie, D.B.**, Boyd, K.L., Inesi, G. & Takeyasu, K. (1992). Calcium sensitive regions of Na and Ca-pump chimeric molecules. [Abstract]. 1992 Conference of the Biophysics Society. *Biophysical Journal, 61*, 119A.
24. **Luckie, D.B.**, Boyd, K.L. & Takeyasu, K. (1991). Ouabain and Ca^{2+}-sensitive ATPase activity of chimeric Na- and Ca-pump molecules. *FEBS Letters*, *281*, 231-234.
25. Lemas, V.M., Garg, J., Fambrough, D.M., **Luckie, D.B.** & Takeyasu, K. (1991). Carboxyl terminus of the alpha subunit of the Na,K-ATPase is required for assembly with the beta-subunit. *Journal of Cell Biology*, *115*, 201A.
26. **Luckie, D.B.**, Boyd, K.L., Mizushima, A., Shao, A., Somlyo, A.P. & Takeyasu, K. (1990). Functional expression of Na- and Ca-Pump chimeric molecules. 44th Annual Symposium of the Society of General Physiologists. 6th International Conference on Na,K-ATPase. *Journal of General Physiology, 96*, 22A.
27. **Luckie, D.B.** (1990) Stable expression of the mutant Na,K-ATPase. [Abstract]. 1990 Conference of the Biophysics Society. *Biophysical Journal, 57*, 352A.

PRESENTATIONS:

Science Education Research -Seminars, Posters and Invited Talks

1. **Luckie, D.B.** (2016, July). *Integrating concepts in biology (ICB) approach increases learning: assessment triangulation using concept inventory, card-sorting task, and mcat, followed by longitudinal tracking*. Talk at Society for Advancement of Biology Education Research (SABER), Minneapolis, MN.
2. **Luckie, D.B.** (2016, May). *Inquiry-in-lecture increases learning*. Talk at Ontario Consortium of Undergraduate Biology Educators Conference (oCUBE), Port Carling, Ontario, Canada.
3. **Luckie, D.B.** (2014, October). *Assessing student learning after converting to inquiry*. Talk at APS Intersociety Meeting: Comparative Approaches to Grand Challenges in Physiology, San Diego, CA.
4. **Luckie, D.B.** (2014, July). *Student content knowledge in biology and longitudinal performance in STEM courses increase in response to higher level oral assessments*. Talk at Society for Advancement of Biology Education Research (SABER) conference, Minneapolis, MN.

5. **Luckie, D.B.** (2014, April). *Less teaching, more learning: authentic inquiry and verbal exams raise student performance on MCAT questions as well as in upper-level science courses*. Invited talk as part of Ryerson University's College Seminar Series, Toronto, Ontario, Canada.
6. **Luckie, D.B.** (2014, March). *Less teaching, more learning: 10-yr study supports increasing student learning through less coverage and more inquiry*. Invited talk as part of Department of Biology's Seminar Series, Grand Valley State University, Grand Rapids, MI.
7. **Luckie, D.B.** (2014, February). *Verbal final exam in introductory biology yields gains in student content knowledge and longitudinal performance*. Talk at CREATE Mini-Conference, East Lansing MI.
8. **Luckie, D.B.** (2013, April). *Less teaching, more learning: 10-year study supports increasing student learning through less coverage and more inquiry*. Invited talk at York University's College Seminar Series, Toronto, Ontario, Canada.
9. **Luckie, D.B.** (2013, May). *Less teaching, more learning: 10-year study supports increasing student learning through less coverage and more inquiry*. Talk at CREATE Mini-Conference, East Lansing, MI.
10. **Luckie, D.B.** (2013, July). *Verbal final exam in introductory biology yields gains in student content knowledge and longitudinal performance*. Talk at Society for Advancement of Biology Education Research conference (SABER), Minneapolis, MN.
11. **Luckie, D.B.** (2012, August). *Bringing relationships alive through interdisciplinary discourse (BRAID).* Talk at the International Learning Conference, London, England.
12. **Luckie, D.B.** & Maleszewski, J.J. (2012, July). *Less teaching, more learning: a 10-year study supports greater inquiry in labs even alongside less coverage yields steady gains in learning.* Talk at Society for Advancement of Biology Education Research (SABER), Minneapolis, MN.
13. **Luckie, D.B.** (2012, June). *Less teaching, more learning: a 10-year study supports greater inquiry in labs even alongside less coverage yields steady gains in learning.* Poster presentation at Association of Biology Laboratory Education (ABLE) Conference, North Carolina-Chapel Hill, NC.
14. **Luckie, D.B.** (2012, May). *Pedagogies for interdisciplinary teaching and learning*. *Keynote presentation at Conference on Interdisciplinary Learning (CITL), East Lansing, MI.
15. **Luckie, D.B.** (2012, April). *Socratic "verbal final" exam yields significant gains in student learning and engagement in large introductory science courses*. Talk at College of Education, Michigan State University, East Lansing, MI.
16. **Luckie, D.B.,** Sweeder R.D. & Bellon R. (2011, March) *BRAID: Bridging the Disciplines*. Roundtable Talk at AAC&U Conference Engaged Stem Learning: Promising to Pervasive Practices, Miami, FL.
17. **Luckie, D.B.** & Ebert-May D. (2008, August). *C-TOOLS: concept connector tools for online learning in science*. Talk at CCLI Principal Investigator's Conference, National Science Foundation, Washington, DC.
18. **Luckie, D.B.** (2008, August). *C-TOOLS automated grading for online concept maps works well with a little help from WordNet*. Poster presentation at CCLI Principal Investigator's Conference, National Science Foundation, Washington, DC.
19. **Luckie, D.B.** (2008, January). *Studying C-TOOLS: automated grading for online concept Maps*. Talk at National Science Foundation Conference on Conceptual Assessment in Biology (CABII), Asilomar, CA.
20. **Luckie, D.B.** (2007, March). *C-TOOLS: concept-connector tools for online learning in science*. Talk at National Science Foundation Conference on Conceptual Assessment in Biology (CABII), Boulder, CO.
21. **Luckie, D.B.** (2006, August). *Less teaching, more learning 4.0*. Talk at Annual Meeting for the National Science Foundation FIRST II project, Hickory Corners, MI.
22. **Luckie, D.B.** (2006, October). *C-TOOLS: concept-connector tools for online learning in science*. Talk at National Science Foundation ASA (Assessment Conference), Washington, DC.
23. **Luckie, D.B.** (2005, September). *Cooperative learning in the classroom laboratory*. Invited talk at College of Science and Technology, Central Michigan University, Mount Pleasant, MI.
24. Harrison S.H, Ebert-May, D. & **Luckie, D.B.** (2004, September). *Introduction to C-TOOLS: concept mapping tools for online learning*. Poster presentation at First International Conference on Concept Mapping, Pamplona, Spain.

25. Harrison S.H, Ebert-May, D. & **Luckie, D.B.** (2004, September). *C-TOOLS automated grading for online concept maps works well with a little help from "WordNet*". Poster presentation at First International Conference on Concept Mapping, Pamplona, Spain.
26. **Luckie, D.B.** (2004, August). *The infusion of collaborative inquiry throughout a biology curriculum increases student learning: a four-year study of "Teams & Streams"*. Talk at 89th Annual Meeting of the Ecology Society of America, Portland, Oregon.
27. **Luckie, D.B.** & Maleszewski, J.J. (2003, February). *Streaming through a freshman biology laboratory: converting short individual 'cookbook' lab exercises into long group inquiry 'streams'*. Talk at American Association for the Advancement of Science (AAAS) Meeting, Denver, CO.
28. **Luckie, D.B.** (2004, June). *Less teaching, more learning 2.0*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
29. **Luckie, D.B.** (2003, July). *Less teaching, more learning*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
30. **Luckie, D.B.** (2003, July). *C-TOOLS: concept-connector tools for online learning in science*. Talk at The Learning Conference (Tenth International Literacy & Education Research Network Conference on Learning), University of London, London, United Kingdom.
31. **Luckie, D.B.** (2002, December). *Teaching with technology: desktop movies help diffuse science friction*. Talk at Michigan State University Libraries and Computing's Technology Seminars, East Lansing, MI.
32. **Luckie, D.B.** (2002, May). *Fundamental concept, group inquiry and C-TOOLS*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
33. **Luckie, D.B.** (2002, May). *Cooperative learning in the classroom laboratory*. Talk at National Science Foundation, FIRST Conference, Hickory Corners, MI.
34. **Luckie, D.B.** (2001, November). *Research and teaching at MSU*. Talk at Lyman Briggs School, Michigan State University, East Lansing, MI.
35. Batzli, J.M., & **Luckie, D.B.** (2001, August). *Web-based concept maps: a study of a novel application to increase students' higher-level thinking skills*. Talk at Ecological Society of America, Madison, WI.
36. **Luckie, D.B**., Smith, K.A. & Maleszewski J.J. (2001, March). *Cooperative learning in the classroom laboratory*. Talk at Michigan State University Lilly Seminar, East Lansing, MI.
37. **Luckie, D.B.** & Maleszewski, J.J. (2001, March). *Fundamentals of biocomputing in the classroom*. Poster presentation at American Association for the Advancement of Science Meeting, San Francisco, CA.

Science Education Research -Workshops

1. Dezure, D., **Luckie, D.,** Sweeder, R., Zitzewitz, K. Phillips, N., Kortemeyer, G. & Westfall, C. (2015, November). *Interdisciplinary Teaching and Learning at MSU*. Participated in panel at Lilly Workshop Series, Michigan State University, East Lansing MI.
2. **Luckie, D.B.** (2015, March). *Active and Cooperative Learning*. Led workshop session at Teaching Essentials Workshop Series, Michigan State University, East Lansing, MI.
3. **Luckie, D.B.,** Campa, H, Briedis, D., Hoag, K., Long T.M., Marks J. & Soranno, P.A. (2013, April). *Putting Theory into Practice*. Participated in panel at Teaching Essentials Workshop Series, College of Natural Science, Michigan State University, East Lansing, MI.
4. **Luckie, D.B.** Freidhoff L.M., Guenther B., Grabski S., & Sticklen J.S. (2012, November). *Engaging Students to Actively Learn: Active Learning, the Flipped Classroom Method and REAL Spaces at MSU*. Participated in panel at Lilly Workshop Series, Michigan State University, East Lansing, MI.
5. **Luckie, D.B.** (2012, October). *Active and Cooperative Learning*. Led workshop session at Teaching Essentials Workshop Series, Michigan State University, East Lansing, MI.
6. **Luckie, D.B.** Murphy C., Smith J.J., Fata-Hartley C., & Cheruvelil K.S. (2012, June). *The Anti-Cookbook Laboratory Model: Teams, Streams and Inquiry*. Co-led workshop session at Association of Biology Laboratory Education (ABLE) Conference, University of North Carolina-Chapel Hill, NC.

7. **Luckie, D.B.** (2012, April). *Active and cooperative learning (teaching = translating)*. Led workshop session at Duhok University in Duhok, Iraq MSU IREX Workshop, East Lansing, MI.
8. **Luckie, D.B.** (2012, February). *Active and Cooperative Learning*. Led workshop session at Teaching Essentials Workshop Series, Michigan State University, East Lansing, MI.
9. **Luckie, D.B.** (2011, August). *Active and Cooperative Learning*. Led workshop session at Teaching Assistant Workshop Series, Michigan State University, Lyman Briggs College, East Lansing, MI.
10. **Luckie, D.B.** (2010, August). *What Do Grades Mean?* Led workshop session at Teaching Assistant Workshop Series, Michigan State University, Lyman Briggs College, East Lansing, MI.
11. **Luckie, D.B.** & D'Avanzo, C. (2008, August). *Diagnosing Student Learning in the Biological Sciences*. Co-led workshop session at National Science Foundation. CCLI Principal Investigators Conference, Bethesda, MD.
12. **Luckie, D.B.,** Batzli, J.M. & Ebert-May, D. (2005, August). *C-TOOLS 2005*. Co-led workshop session at 90th Annual Meeting of the Ecology Society of America, Montreal, Ontario, Canada.
13. **Luckie, D.B.,** Ebert-May, D., Long, T.M. & Sibley D.F. (2005, May). *Less Teaching, More Learning 3.0*. Co-led workshop session at 1st National Meeting for the National Science Foundation FIRST II project, Kellogg Biological Station, Hickory Corners, MI.
14. **Luckie, D.B.** & Sweeder R.S. (2005, June). *LabLINC*. Co-led workshop session at National Science Foundation, BioQUEST Conference, Beloit College, Beloit, WI.
15. **Luckie, D.B.,** Hoddar, J., Ebert-May, D. & Batzli, J.M. (2004, August). *Inquiry laboratory pedagogy*. Co-led workshop session at 89th Annual Meeting of the Ecology Society of America, Portland, OR.
16. **Luckie, D.B.,** Harrison, S.H. & Ebert-May, D. (2003, May). *Using C-TOOLS*. 2-Day Workshop." Co-led workshop session at National Science Foundation, C-TOOLS Project Workshop, Michigan State University, East Lansing, MI.
17. **Luckie, D.B.,** Harrison, S.H. & Ebert-May, D. (2003, December). *Using C-TOOLS*. 1-Day Workshop." Co-led workshop session at National Science Foundation, C-TOOLS Project Workshop, Michigan State University, East Lansing, MI.
18. **Luckie, D.B.,** Bagley, J., Harrison, S.H. & Ebert-May, D. (2002, December). *Using C-TOOLS*. 1-Day Workshop." Co-led workshop session at National Science Foundation, C-TOOLS Project Workshop, Michigan State University, East Lansing, MI.
19. **Luckie, D.B.,** Smith, A., Sibley, D.M. & Riffel S. (2002, August). *Teaching with Technology*. Co-led workshop session at Lilly Workshop Series, Kellogg Center, Michigan State University, East Lansing, MI.
20. **Luckie, D.B.,** Batzli, J.M. & Ebert-May, D. (2001, August). *Assessment of student learning: Strategies and tools for evidence that counts*. 86th Annual Meeting of the Ecological Society of America, Madison, WI.

Physiology Research -Seminars, Posters and Invited Talks

1. **Luckie, D.B.** (2016, October). *Do new drug treatments also correct the abnormal pH exhibited in CF*. Roundtable talk at 30th Annual North American Cystic Fibrosis Conference (NACFC), Orlando, FL.
2. **Luckie, D.B.** (2011, November). *Chemical chaperone studies of CFTR function in airway epithelia*. Roundtable talk at 25th Annual North American Cystic Fibrosis Conference (NACFC), Anaheim, CA.
3. Haenish M.D. & **Luckie, D.B.** (2009, October). *LPS stimulated CFTR function in airway pathogen pseudomonas*. Roundtable talk at 23rd Annual North American Cystic Fibrosis Conference (NACFC), Minneapolis, MN.
4. Haenisch, M.D. & **Luckie, D.B.** (2009, October). *Exposure to P. aeruginosa and LPS alter CFTR-dependent ion conductance in cultured 2WT2 epithelial cells in a time and dose dependent fashion*. Poster presentation at 23rd Annual North American Cystic Fibrosis Conference, Minneapolis, MN.
5. **Luckie, D.B.** (2008, November). *Development of an assay for bacterial pathogenesis in cystic fibrosis*. Roundtable talk at 22nd Annual North American Cystic Fibrosis Conference (NACFC), Orlando, FL.
6. **Luckie, D.B.** (2005, October). *CFTR function decreases extracellular acidification of pH*. Roundtable talk at 19th Annual North American Cystic Fibrosis Conference (NACFC), Baltimore, MD.

7. **Luckie, D.B.** (2002, October). *CFTR expression and function at the cell surface decreases extracellular acidification of pH as monitored by Microphysiometry*. Symposium talk at 16th Annual North American Cystic Fibrosis Conference (NACFC), New Orleans, LA.
8. **Luckie, D.B.** (2000, October). *HCO3 and CF*. Talk at Bicarbonate Subcommittee meeting at 14th Annual North American Cystic Fibrosis Conference (NACFC), Baltimore, MD.
9. **Luckie, D.B.,** Hobbs, E.C. & Maleszewski, J.J. (1999, November). *Extracellular acidification parallels insulin secretion in pancreatic beta cell lines (INS-1 and HIT)*. Poster presentation at the 13th Annual North American Cystic Fibrosis Conference (NACFC), Seattle, WA.
10. **Luckie, D.B.,** Hobbs, E.C. & Maleszewski, J.J. (1999, April). *Characterizing pancreatic function with microphysiometry*. Talk at Department of Physiology, Michigan State University, East Lansing, MI.
11. **Luckie, D.B.** (1998, October). *CFTR expression can change extracellular pH*. Symposium talk at 12th Annual North American Cystic Fibrosis Meeting (NACFC), Montreal, Ontario, Canada.
12. **Luckie, D.B.** (1998, June). *pH-based detection of defects in cystic fibrosis and diabetes*. Invited talk at International Cell Analysis Products Users Meeting, Hilton Head Island, SC.
13. **Luckie, D.B.** (1997, November). *CF & Cytosensor Research*. Invited talk at Lyman Briggs School Faculty Colloquium, Michigan State University, East Lansing, MI.
14. **Luckie, D.B.** (1997, November). *pH-based detection of cystic fibrosis*. Invited talk at Department of Pharmacology & Toxicology, Michigan State Unifersity, East Lansing, MI.
15. **Luckie, D.B.** (1997, October). *Cytosensor findings for CF*. Roundtable talk at 12th Annual North American Cystic Fibrosis Conference (NACFC), Nashville, TN.
16. **Luckie, D.B.** (1996, April). *Extracellular pH: a new index of correction in cystic fibrosis*. Invited talk at Department of Physiology, Michigan State University, East Lansing, MI.
17. **Luckie, D.B.** (1996, April). *A new assay for the correction of cystic fibrosis*. Invited talk at Department of Biology, Temple University, Philadelphia, PA.
18. **Luckie, D.B.** (1996, March). *Microphysiometry for the correction of cystic fibrosis*. Invited talk at Department of Biology, Monmouth College, Monmouth, NJ.
19. **Luckie, D.B.** (1996, March). *Microphysiometry: pH and cystic fibrosis*. Invited talk at Lyman Briggs School, Michigan State University, East Lansing, MI.
20. **Luckie, D.B.** (1996, February). *A pH assay for the correction of cystic fibrosis*. Invited talk at Department of Biology, Tennessee State University, Nashville, TN.
21. **Luckie, D.B.** (1996, January). *Developing a pH assay for the diagnosis of cystic fibrosis*. Invited talk at Medical Sciences Program, Indiana University, Bloomfield, IN.
22. **Luckie, D.B.** (1996, January). *Microphysiometry: a new assay for the correction of cystic fibrosis*. Invited talk at Department of Biology, Santa Clara University, Santa Clara, CA.
23. **Luckie, D.B.** (1995, October). *CFTR may alter extracellular pH by inhibition of the Na/H exchanger, a cytosensor study*. Symposium talk at 9th Annual North American Cystic Fibrosis Conference, Dallas, TX.
24. Krouse, M.E. & **Luckie, D.B**. (1993, October). *MDR/P-glycoprotein expression facilitates swelling Cl- current*. Poster presentation at 7th Annual North American Cystic Fibrosis Conference, Dallas, TX.
25. **Luckie, D.B.** (1991, November). *Molecular dissection of domains of the E1E2-ATPases using sodium and calcium pump chimeric molecules*. Invited talk, Biophysical Society Discussions Meeting, Airlie, VA.
26. **Luckie, D.B.** (1991, July). *Ca^{2+} binding activity of Na/K-ATPase and Ca-ATPase chimeric constructs*. Invited talk at Department of Biological Chemistry, University of Maryland at Baltimore, Baltimore, MD.
27. **Luckie, D.B.** (1990, November). *Functional expression of Na- and Ca-pump chimeric molecules*. Poster presentation at 44th Annual Symposium of the Society of General Physiologists, Woods Hole, MA.
28. Takeyasu, K. & **Luckie, D.B**. (1990, October). *Stable Expression of the Mutant Na,K-ATPase*. Poster presentation at the 1990 Meeting of the Biophysics Society, Baltimore, MD.

PROFESSIONAL SERVICE:

Grant Reviewer

MSU IRGP Proposals Office the VP for Research 1999-2002, 2005
National Science Foundation Grants Program (MCBCB); 1996, 2000.
National Science Foundation Grants Program (TUES) 2002, 2003, 2005, 2006, 2008, 2009
National Science Foundation Grants Program (GK-12 Initiative), 2000

Manuscript Reviewer

PLOS ONE, 2018
CBE-Life Science Education, 2013-2017
Advances in Physiology Education, 2005-2017
Clinical Genetics, 2017
The International Journal of Pedagogy & Curriculum, Vol. 19, 2013
Journal of Membrane Biology, 1997-2002.
Journal of Clinical Investigation, 1997.
American Journal of Physiology, 1995-1999.
Journal of Physiology, 1995-1996.

Textbook Reviewer

Knowledge Project Series, *Nature Education*, 4 online modules, 2011.
BIOLOGY, 7th edition, by Campbell & Reese, 10 textbook chapters, 2005.

Journal Editor

Associate Editor, *The International Journal of Pedagogy & Curriculum*, 2013

SERVICE AT MICHIGAN STATE UNIVERSITY:

Service on Standing School/College/University Committees

Lyman Briggs College Advisory Committee, 1998-2002, 2004-2005, 2006-2007, 2012-2014, 2017-2018.
MSU University Committee on Liberal Learning (UCLL), 2011-2014
MSU University Committee on Faculty Tenure, 2011
MSU Faculty Organizational Development Advisory & SoTL Board, 2006-2012
Lyman Briggs Educational Policies Committee, 2002-2004 (Secretary)
Lyman Briggs School TA Workshop Committee, 1997-2001 (Co-Chair)
Lyman Briggs College 2-person Annual Review Committees, 1997-present
Lyman Briggs College Mentoring Committees, 2004-present
Department of Physiology Curriculum Committee, 1999-2002, 2013-2015
Department of Physiology Animal Use Committee, 1998-2005

Service on Ad Hoc Committees (Including Search Committees)

LBC Philosophy of Environment Tenure-Stream Faculty Position Search Committee, 2017-2018.
Fixed-Term Biology Search Committee, 2016
Chair, Tenure-Stream Faculty Position, Biology Search Committees 2003, 2004, 2005, 2013
Briggs Advisory Committee (BAC) Green Ribbon Group, 2012-2014
MSU AAU Grant Initiative Committee, 2013
MSU WIDER Grant Initiative Committee, 2013
MSU STEM Alliance Initiative Committee, 2013-present
MSU HHMI Grant Initiative Committee, 2013
RPT-Promotion and Tenure Committees for: Michael Nelson (2009), Rich Bellon (2010), Robert Bell (2011-Chair), Jerry Urquhart (2011-Chair).
Briggs Ad Hoc Committee on RPT Documents/Communication, 2010
MSU Honors College Review Committee of The ADS Examination, 2002, 2010
Lyman Briggs Biology Group Co-Coordinator, 2005-present
LBC Sociology of Medicine Tenure-Stream Faculty Position Search Committee, 2007-2008
College of Natural Science, Faculty Advisory Council (FAC), 2003-2007

ADVISING:

Graduate Committee/Graduate Student Mentoring

Candace Igert, 2012-2014
Michael Haenisch, 2006-2009
Angela Wright, 2006-2007
Marija Krha, 2002-2005
John Wilterding, 1997-2000

Undergraduate Student Mentoring

Ali Kadouh, Maria Green, Noor Abdallah, Davin Hami, Samantha Thacker, Hannah Zawisa, Alex Blundin, 2018
Emily Nemeth, Noor Abdallah, Davin Hami, Hannah Zawisa, Allison Vlk, 2017
Andrea Hess, Katrina Price, Samantha Thacker, Alex Tawa, Caleigh Griffin, 2015-2017
Kathryn Kesler, Ahmad Tahawi, Greg Ribble, Caleigh Griffin, Andrew Van Alst, 2014
Hillary Albert, Lauren Lendzion, Anthony Dimovski, Nicole Patel, Paul Singh, Nick Fernandez, Lauren Kustasz, Leah Brynaert, Chuck Ternes, Eric Kontowicz, Nicole Rando, Elizabeth DeCesare, Eli Guttman, Jake Aubry, Aaron Rivkin, 2013
Ben Marengo, Aaron Rivkin, Jake Aubry, Bo Parsons, Lauren Kustacz, 2012
Lindsey Foos, Benjamin Marengo, Jake Aubry, Aaron Rivkin, 2011
Katie Oleski, Rupal Patel, 2010
Jayme Olsen, Vincent Cracolici, David Maison, Mitchel Wood, Olivia Shull, 2009
Aaron Lewandowski, Katie Carpenter, Brian Wlosinski, Khaled Hammoud, 2008
Aaron Walls, Pratima Nayak, Lauren Gamble, Matt Lincoln, 2003-2007
Angela Wright, Tristin Holton, Joey O'Connor, 2005-2006
Jim Howard, Luke Kane, Mary Riblett, Katie Sowle, Adam Jabonowski, Jamey Hardesty, 2004
Dan Gutteridge, Katie Kruse, Andy McCoy, Andy Luea, John Lambrix, Erin Fedak, 2003
Robert Flood, Brad Kozel, Keith Eaton, Haley Jo Jenema, Paul Fornetti, 2000
Vishal Malhotra, Aashish Shah, Chi Lim, Stephen Cahill, 2000-2003
Errett Hobbs, Joseph Maleszewski, Sarah Loznak, Indra Neil Sarkar, 1998-2001
Jennifer Nichols, Christopher Singh, 1998
David Chapman, 1997