DOUGLAS B. LUCKIE, Ph.D.
luckie@msu.edu
http://cf.psl.msu.edu/

Residential College Office:
Lyman Briggs College
W-26D Holmes Hall, 919 E Shaw Lane
Michigan State University
East Lansing, MI 48825-1107
(517) 353-4606

CF & STEM Research Lab:
Department of Physiology
2140 BPS, 567 Wilson Road
Michigan State University
East Lansing, MI 48824-3320
(517) 884-5031

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

Summer DEI Fellowship, *edX*, Inclusive STEM Teaching (online & in-person accreditation). 2021
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). 1992-1996

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

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
- *Mimi M.A. Sayed Faculty Award* (to one LBC faculty) from the Briggs Students of Color. 2002
- *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. Brian O'Shea, Ph.D. for 1-year Lilly Teaching Fellowship at MSU. 2011-2012
- 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

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

BioCore: 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) ($\bar{x}$=100 students, taught 4 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 6 times, in-person/online/hybrid)

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 12 times, in-person/online)

Advances in Applied Biology Sophomore undergraduate laboratory "internship" course that engages students in evaluating literature and performing independent research ($\bar{x}$=12 students, taught 7 times, in-person/online)

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 with Drs. Alice Dreger, Stephen J. Gould, Daniel Kleppner, Ruth Hubbard, Anne McLaren and Ira Flatow (Endowment for the Public Understanding of Science) (n=20 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)

RESEARCH GRANTS:

Science Education Research

Michigan State University, ISP Office, *BroadView: Scaling-up a Pilot research study of impact of Study Abroad on intercultural learning*. PI: Douglas Luckie, Co-PI: Elizabeth Wandschneider, $3,750. 2020-2024.

Michigan State University Lyman Briggs College LAUNCH Fund, *BroadView: Impact of study abroad*. PI: Douglas Luckie, $1,850. 2017

Michigan State University, Trajectory Fund, *BioCore*. PI: Douglas Luckie, $10,000. 2015-2016

Michigan State University, PILOT Fund, *Davidson STEM Research*. PI: Douglas Luckie, $2,500. 2015-2016

National Science Foundation, Award #1432563, Improving Undergraduate STEM Education (IUSE) Program, *Active LENS: Learning Evolution and the Nature of Science using Evolution in Action*. Senior Personnel: Douglas Luckie, PI: Robert Pennock, Co-PIs: Smith, Ofria, Mead, Lenski $2,315,695. 2014-present

National Science Foundation, Award #1022754, 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, $249,959. 2011-2014

National Institute of Health, R25 Grant, Award# 5R25HL108864-05, Role: Senior Personnel: Douglas Luckie, PI: Elahe Crockett-Torabi, *Research Education program to Increase Diversity in Health-Related Research* (R25), $1,005,261. 2011-2016.

National Science Foundation, Award #1043876, Transforming Undergraduate Education in STEM (TUES) Program, *Integrative Case Studies in Evolution Education*. Senior Personnel: Douglas Luckie, PI: James Smith, Co-PI: Merle Heideman $199,797. 2011-2013

National Science Foundation, Award #0736947, Course Curriculum Laboratory Improvement (CCLI) Program, *A Framework for Reasoning in Cell Biology Courses*. PI: Joyce Parker, Co-PIs: Douglas Luckie, Merle Heideman, John Merrill, Barbara Sears, James Smith, Duncan Sibley, Mark Urban-Lurain, Charles Anderson, Gail Richmond, Tammy Long. $200,000. 2008-2009

National Science Foundation, Award #0633222, 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 (C-TOOLS #0206924 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, Award #0206924, 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, Walter Benenson, Steven Spees, $388,858. 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

Physiology Research

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Application of Osmometer to cell culture in CF*. PI: Douglas Luckie, $10,000. 2019-2023

Pennsylvania Cystic Fibrosis Inc. Foundation (PACFI), Research Grant Program, *Efflux Systems for Cystic Fibrosis*. PI: Douglas Luckie, $2,500. 2018-2021

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

Science Education Research (in this field ***first*** and ***last*** author are most prominent positions, students underlined):

Book Chapters

1. **Luckie, D.B.** (2012). A faculty cocktail as treatment: unearthing pedagogies that promote interdisciplinary learning. *Invited paper for CITL Conference* at Michigan State University, East Lansing, MI (white paper).
2. Newell, W.H. & **Luckie, D.B.** (2012). Pedagogy for interdisciplinary habits of mind. *Proceedings of CITL Conference*, Michigan State University, East Lansing, MI.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

Conference Proceedings

1. **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.
2. **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.
3. **Luckie, D.B.** & Ebert-May, D. (2007) C-TOOLS: concept-connector tools for online learning in science. *Conference Proceedings from Conceptual Assessment in Biology I, 1*(6): 1-4.
4. 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.
5. **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.
6. **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.
7. **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.

8. Maleszewski, J.J. & **Luckie, D.B.** (2003) Streaming through a freshman biology laboratory: converting short individual "cookbook" lab exercises into long group inquiry "streams." AAAS Meeting, Denver, CO.

Articles (Peer Reviewed; Pedagogy and method papers)

1. **Luckie**, **D.B.** (2022) Inconceivable: Assessment of Teaching at the University Level. *Advances in Physiology Education*, 46: 335–338.
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.,** Bellon, R. & Sweeder, R. (2013). Bringing relationships alive through interdisciplinary discourse (BRAID). *International Journal of Pedagogy and Curriculum, 19*(3), 133-144.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. Ebert-May, D., Hodder, J., Williams, K. & **Luckie, D.** (2004). Pathways to scientific teaching, *Frontiers in Ecology and the Environment, 6*(2), 323.
11. 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.
12. **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.
13. 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.

Articles (Peer Reviewed; experimental research data papers)

1. **Luckie**, **D.B.,** Mancini, B.W., Abdullah, N., Kadouh, A.K., Ungkuldee, A.C.P. and Hare A.A. (2020) Undergraduate TAs can provide strong support for reformed practices to raise student learning. *Advances in Physiology Education*, 44: 32–38.
2. Newell W.H. & **Luckie D.B.** (2019) Pedagogy for Interdisciplinary Habits of Mind, *Journal of Interdisciplinary Studies*, special issue "JISE; Next Steps: Research, Pedagogical, and Collaborative Outgrowths of Interdisciplinary Teaching." 8(1):6-20.
3. **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. *CBE-Life Science Education*, *(16)*20, 1-10.
4. **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.
5. **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.
6. **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.

7. **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.
8. **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.

Physiology Research (in this field ***first*** and ***last*** author are most prominent positions, students underlined):

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*, (237-242). New York: Rockefeller Univ Press.

Reviews

1. Krouse M.E. & Luckie D.B. (2019) "But, is pH important in CF?" an invited contribution to a "CrossTalk" debate J Physiol 600: 1-4. In response to: Figueira, M. F., Webster, M. J. and Tarran, R. (2018) Mucosal acidification drives early progressive lung disease in cystic fibrosis. Journal of Physiol, 596: 3433-3437.
2. Marquette, C.R. & **Luckie, D.B.** (2016). Dissection of a mechanistic controversy in cystic fibrosis, *JSM Genetics and Genomics, 3*(2), 1-11.
3. **Luckie, D.B**. & Krouse, M.E. (2012). Cystic fibrosis: does CFTR malfunction alter pH malfunction? *Genetic Disorders*, *12*, 319-344.
4. **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.
5. **Luckie, D.B.** & Wine, J.J. (1996). Cell volume regulation: P-glycoprotein- a cautionary tale. *Current Biology, 6*(11), 1410-1412.

Conference Proceedings

1. 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. Cystic Fibrosis Conference. *Pediatric Pulmonology*, *32*, 258-259.
2. 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. Cystic Fibrosis Conference. *Pediatric Pulmonology*, *24*, 205A.
3. Hootman, S.R. & **Luckie, D.B.** (2001). Mitogen-activated protein kinases in the pancreatic duct system. American Pancreatic Association, *Pancreas, 8*, 331A.
4. Hootman, S.R., Hobbs, E.C. & **Luckie, D.B.** (1999). Direct measurement of proton efflux from isolated guinea pig pancreatic ducts. American Pancreatic Association *Pancreas 19*, 424
5. **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). Cystic Fibrosis Conference. *Pediatric Pulmonology*, *19*, 255.
6. **Luckie, D.B.** & Wine, J.J. (1998). CFTR expression can change extracellular pH. Cystic Fibrosis Conference. *Pediatric Pulmonology*, *16*, 226.
7. Olson, L.K., Wine, J.J. & **Luckie, D.B.** (1998). pH-based detection of defects in cystic fibrosis and diabetes. *International Cell Analysis Products Conference Report*, *2*, 112.
8. **Luckie**, D.B., Pitchford, S. & Wine, J.J. (1995). CFTR may alter extracellular pH by inhibition of the Na/H exchanger, a cytosensor study. 1995 Cystic Fibrosis Conference. *Pediatric Pulmonology*, *12*, 181.
9. **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. Conference of the Biophysics Society. *Biophysical Journal, 68*(2), 272.
10. **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. Conference of the Biophysics Society. *Biophysical Journal, 68*(2), 273.

11. 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. Cystic Fibrosis Conference. *Pediatric Pulmonology*, *9*, 1.
12. **Luckie, D.B.**, Boyd, K.L., Inesi, G. & Takeyasu, K. (1992). Calcium sensitive regions of Na and Ca-pump chimeric molecules. Conference of the Biophysics Society. *Biophysical Journal, 61*, 119.
13. **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. Society of General Physiologists. International Conference on Na,K-ATPase. *Journal of General Physiology, 96*, 22.
14. **Luckie, D.B.** (1990). Stable expression of the mutant Na,K-ATPase. Conference of the Biophysics Society. *Biophysical Journal, 57*, 352.
15. Lemas, V.M., Garg, J., Fambrough, D.M., **Luckie, D.B.** & Takeyasu, K. (1991). Carboxyl terminus of the alpha subunit of Na,K-ATPase required for assembly with beta-subunit. *Journal of Cell Biology*, *115*, 201.

Articles (Peer Reviewed; experimental research data papers). CUREnet » = Course-based Undergraduate Research

1. CUREnet » Bush E.L., Johnson K.D., Sekar A., Gislason K., Furlow C.W., Reiterman M.J. and **Luckie D.B.** (2021) Intention mismatch in primer design to stabilize discrimination of CFTR and adenovirus targets, *Journal of Physiology and Pathophysiology* 12(1): 17-24.
2. Massey M.K., Reiterman M.J., Mourad J. and **Luckie D.B.** (2021) Is CFTR an exchanger?: Regulation of HCO3- Transport and extracellular pH by CFTR. *Biochemistry and Biophysics Reports*, 25: 1008-63.
3. CUREnet » Cederman M.R., Leff M.F., Monforton M.R., Bauer A.M. and **Luckie D.B.** (2020) Identification of G551D-CFTR allele via AS-PCR of buccal cells. *Current Topics in Biochemical Research*, 21: 15-23
4. CUREnet » Hohman, D.E., Lerner, O.S., Nolan, S.M., Kuza, G.A., Z. Zaman & **Luckie D.B.** (2019) Testing Primer Sequence Variations Using AS-PCR to Diagnose the V232D-CFTR Mutation, *Journal of Human Clinical Genetics*, Volume 1 (2): 10-17.
5. **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.
6. 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.
7. 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.
8. **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.
9. **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.
10. **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.
11. **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.
12. **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.
13. **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.

PRESENTATIONS

Science Education Research:

Invited Keynote Talks

1. **Luckie D.B**. (2019, May). "*Verbal final exam in introductory biology yields gains in student content knowledge and longitudinal performance*." Department of Physiology, East Lansing MI.
2. **Luckie, D.B.** (2012, May). *Pedagogies for interdisciplinary teaching and learning*. Conference on Interdisciplinary Learning (CITL), East Lansing, MI.
3. **Luckie, D.B.** (2002, December). *Teaching with technology: desktop movies help diffuse science friction*. Michigan State University Libraries and Computing's Technology Seminars, East Lansing, MI.

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.** (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.
11. **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.
12. **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.

Contributed Talks

1. **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.
2. **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.

3. **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.
4. **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.
5. **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.
6. **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.
7. **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.
8. **Luckie, D.B.** (2004, June). *Less teaching, more learning 2.0*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
9. **Luckie, D.B.** (2003, July). *Less teaching, more learning*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
10. **Luckie, D.B.** (2002, May). *Fundamental concept, group inquiry and C-TOOLS*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
11. **Luckie, D.B.** (2002, May). *Cooperative learning in the classroom laboratory*. Talk at National Science Foundation, FIRST II Conference, Hickory Corners, MI.
12. **Luckie, D.B.** (2001, November). *Research and teaching at MSU*. Talk at Lyman Briggs School, Michigan State University, East Lansing, MI.
13. 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.
14. **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.

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.

Posters

1. **Luckie D**., Hoskinson A.-M., Green M., Hami D., and Zawisa H (2020, June) *Inquiry-in-lecture strategy: ICB textbook impact on Bio1 student learning assessed by concept inventory, card-sorting, MCAT, and tracking*. Society for Advancement of Biology Education Research (SABER) Conference, July 17, held virtually due to COVID-19.
2. **Luckie D.B.** Hoskinson, A.-M., Green M., Hami, D. & Zawisa H. (2019, Dec). "*CURE lecture too*: Integrating concepts in biology (ICB) approach increases learning; assessment triangulation using concept inventory, card-sorting task, and MCAT, followed by longitudinal tracking." Poster presentation at HHMI Gateway Summit, December 17, MSU, East Lansing MI.
3. **Luckie D.B**, Hoskinson, A.-M., Green M., Hami, D. & Zawisa H. (2019, June) "*Inquiry in lecture (ICB textbook) approach increases learning: assessment triangulation using concept inventory, card-sorting task, and MCAT, followed by longitudinal tracking*." Poster presentation at Undergraduate Biology Education Research, Gordon Research Conference, June 23-27, Bates College, Lewiston, ME
4. **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.
5. **Luckie, D.B.** (2012, August). *Bringing relationships alive through interdisciplinary discourse (BRAID)*. Talk at the International Learning Conference, London, England.
6. **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.

7. **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.
8. **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.
9. 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.
10. 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.
11. **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'*. Poster at American Association for the Advancement of Science (AAAS) Meeting, Denver, CO.
12. **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.

Physiology Research:

Invited Talks

1. **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. (cancelled due to Hurricane "Lilly")
2. **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.
3. **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.
4. **Luckie, D.B.** (1997, November). *pH-based detection of cystic fibrosis*. Invited talk at Department of Pharmacology & Toxicology, Michigan State Unifersity, East Lansing, MI.
5. **Luckie, D.B.** (1996, April). *A new assay for the correction of cystic fibrosis*. Invited talk at Department of Biology, Temple University, Philadelphia, PA.
6. **Luckie, D.B.** (1996, March). *Microphysiometry for the correction of cystic fibrosis*. Invited talk at Department of Biology, Monmouth College, Monmouth, NJ.
7. **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.
8. **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.
9. **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.
10. **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.
11. **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.
12. **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.

Contributed 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. **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.
5. **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.
6. **Luckie, D.B.** (2000, October). *HCO3 and CF*. Talk at Bicarbonate Subcommittee meeting at 14th Annual North American Cystic Fibrosis Conference (NACFC), Baltimore, MD.
7. **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.
8. **Luckie, D.B.** (1997, November). *CF & Cytosensor Research*. Invited talk at Lyman Briggs School Faculty Colloquium, Michigan State University, East Lansing, MI.
9. **Luckie, D.B.** (1997, October). *Cytosensor findings for CF*. Roundtable talk at 12th Annual North American Cystic Fibrosis Conference (NACFC), Nashville, TN.
10. **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.
11. **Luckie, D.B.** (1996, March). *Microphysiometry: pH and cystic fibrosis*. Invited talk at Lyman Briggs School, Michigan State University, East Lansing, MI.

Posters

1. 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.
2. **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.
3. 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.
4. **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.
5. 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, 2013-2021
Advances in Physiology Education, 2005-2021

Advances in Medical Education and Practice, 2018
Clinical Genetics, 2017-2019
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 Annual Review Committee (ARC), 2021-2022.
Lyman Briggs College Speaker Series Committee, 2018-2019.
Lyman Briggs College Briggs Advisory Committee (BAC), 1998-2002, 2004-2005, 2006-2007, 2012-2014, 2017-2018, 2019-2020
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)
Department of Physiology Curriculum Committee, 1999-2002, 2013-2015
Department of Physiology Educational Development Committee, 2018-2019, 2019-2021, 2021-2022
Department of Physiology Animal Use Committee, 1998-2005
College of Natural Science, Faculty Advisory Council (FAC), 2003-2007

Service on Ad Hoc Committees (Including Search Committees)
Lyman Briggs College Tenure-Stream Biology DBER of DEI&B Search Committee, 2021-2022
Lyman Briggs College Philosophy of Environment Tenure-Stream Search Committee, 2017-2018
Lyman Briggs College Sociology of Medicine Tenure-Stream Search Committee, 2007-2008
Chair, Lyman Briggs College Tenure-Stream Search Committees 2003, 2004, 2005, 2013
Lyman Briggs College Fixed-Term Biology Search Committees, 2016, 2020
Lyman Briggs Biology Group Co-Coordinator, 2005-2008, 2010-2012, 2014-2016, 2018-2022
Promotion Review Committees: Michael Nelson (2009), Rich Bellon (2010), Robert Bell (2011-Chair), Jerry Urquhart (2011-Chair), Sean Valles (2012), Peter White (2017), Cassie Dresser-Briggs (2018), Shahnaz Masani (2018), Arthur Ward (2019-2020), Isaac Record (2019-2020), Gregory Lusk (2020), Rachel Barnard (2021-2022)
PSL EDC Peer Observation subcommittee 2018-2019, 2019-2020
PSL EDC Evaluate Assessments subcommittee: 2018-2019, 2019-2020
Lyman Briggs School TA Workshop Committee, 1997-2001 (Co-Chair)
Lyman Briggs College 2-person Annual Review Committees (2PC), 1997-2019
Lyman Briggs College Mentoring Committees, 2004-2022
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, 2013-2015, MSU HHMI Grant Initiative Committee, 2013
Briggs Ad Hoc Committee on RPT Documents/Communication, 2010
MSU Honors College Review Committee of The ADS Examination, 2002, 2010

Workshops & Webinars- Training for Online Teaching and Learning:
Webinar: "Preparing for Multiple Teaching Scenarios with TopHat Pro", August 6, 2020
Webinar: "Active Learning, Anywhere. Introducing TopHat Pro", June 17, 2020
Webinar: "Effective Online Instruction: Recording Effective Micro-lectures," ACUE, April 17, 2020
Workshop: "Remote Teaching Bootcamp," May 5, 2020 (Drs. Shoshanah Jacobs & Alex Smith)
MSU course (throughout June 2020): ASynchronous Program for Instructional REadiness (ASPIRE)

ADVISING/MENTORING:

Faculty Mentoring (in Teaching & Learning**)**
2021-2022: Formal Mentor for Dr. Jenifer Saldanha
2021-2022: Formal Mentor for Dr. Justin P. Lawrence
2014-2015: Formal Mentor for Dr. Kevin Elliott
2014-2020: Formal Mentor for Dr. Peter White
2019-2022: Lyman Briggs Biology mentor for Dr. Shahnaz Masani
2019-2022: Lyman Briggs Biology mentor for Dr. Cassie Dresser-Briggs
2011-2012: Formal Mentor for Dr. Gerald Urquhart
2011-2014: Formal Mentor for Dr. Richard Bellon
2011-2012: Formal Mentor for Dr. Robert Bell
2011: Formal Mentor for Dr. Petra Telgkamp
2010-2012: Formal Mentor for Dr. Brian O'Shea
2010-2014: Formal Mentor for Dr. Sean Valles
2009-2011: Formal Mentor for Dr. Cori Fata-Hartley
2004-2017: Formal Mentor for Dr. Ryan Sweeder

Graduate Student Mentoring (5 in Research**)**
2012-2014: Candace Igert
2006-2009: Michael Haenisch
2006-2007: Angela Wright
2002-2005: Marija Krha
1997-2000: John Wilterding

Graduate Student Mentoring (19 in Teaching & Learning**)**
2021-2022: Mr. Brady Tyburki
2018-2019: Kathryn Kesler
2018-2019: Andrew VanAlst
2019: Hayden Stoub
2016: Joel Betts
2015-2016: Eric Kontowicz
2014-2016: Anthony Watkins
2013-2014: Eric Gurzelle
2012-2014: Candace Igert
2010-2013: David Malakauskas
2010-2011: Nicole Nichol
2010-2011: Amanda Gnau
2006-2009: Michael Haenisch
2006-2007: Angela Wright
2003-2004: Richard Chalmers
2001-2004: Marija Krha
2000-2003: Joseph Maleszewski
1999-2000: James Zablotny
1996-1999: John Wilterding

Undergraduate Student Mentoring (in Research**)**
1997-present (101 students, in reverse chronological order)
2020: Emma Bush, Ashley Hare, Alisha Ungkuldee, Ali Kadouh, Noor Abdallah, Maggie Leff, Matt Cederman, Megan Monforton, Ally Bauer, Maria Green, Jad Mourad, Michael Reiterman, Katelyn Johnson, Akhil Sekar, Kate Gislason, Caleb Furlow
2019: Emma Bush, Ben Mancini, Ashley Hare, Alisha Ungkuldee, Ali Kadouh, Noor Abdallah, Maggie Leff, Matt Cederman, Megan Monforton, Ally Bauer, Danielle Hohman, Oren Lerner, Scott Nolan, Grace Kuza, Zakai Zaman, Maria Green, Jad Mourad, Megan Pastrick, Cameron Carpenter, Michael Reiterman, Katie Bederka, Jacob Wolfe, Joe Kelly and Robert Davison

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

Undergraduate Student Mentoring (in Teaching & Learning**)**

1999-present (151 students, in chronological order)

Johnson, Reba; Maleszewski, Joseph; Dolehanty, Colin; Julien, Lucas; Allor, Katie; Butler, Brandi; Dickerson, Anne; Lagina, Amy; Sharangpani, Ruta; Unkefer, Nate; White, Barb; Kulas, Alison; Corby, Rodney; Taylor, Jillian; Gerbe, William Bradley; Schilio, Paul; Johnson, Nathan; Maxson, Amy; Hall, Heather; Castelli, Tina; Kolar, Rebecca; Martin, Lindsay; Ngo, Kha; Rodriguez, Katie; Chapple, Kristen; Lijana, Julie; Brown, Jonathan; Sarkar, Indra Neil; Ward, Leslie; Wood, Dan; Chalmers, Richard; Quinn, Jeff; Diller, Kathryn Haley Rose; Malhotra, Vishal; Estry, Amy; Forster, Ryan; Dabrowski, Phil; Miller, Laura ; Rasher, Doug; Taylor, Andy; Atkinson, Brent; Degraaf, Rebecca; Gutteridge , Daniel; Wright, Angela ; Hardie, James; Gardner, Samantha; Mooney, Jamie ; Foland, Walker; Harvey, Michelle; Nguyen, Hong-Phuc; Scott, Isaiah; Levely, Jessica; Mongiat, Shawna; Riopelle, Kate; Geist, Jamie; Gnau, Amanda; Grover, Jessica; Leitch, Katherine; Crumrin, Trasi; Susott, Chad; Lincoln, Matthew; Feinberg, Lauren ; Murphy, Devin ; Eggan, Kelly; Glueckert , Elle ; Simon , Nick ; Servinsky, Sarah ; Nagarah , Mallory ; Goodall, Megan ; Baranski, Marci; Mastenbrook, Joshua; Hammoud, Khaled; Coulter, Ashley; Mashni, Jason; Lee-Mills, Catherine; Busch, Michael; Jaswa, Amrita; Zajac, Emily; Baranski, Marci; Hatter, Lindsay; Philipich, Jamie; Olszewicz, Josh ; Gurzell, Eric; Rygiel, Valerie; Yee, Jennifer; Oleski, Katie; Cracolici, Vincent; Stein, John; Maison, David; Palumbo, Natalie; DeLand, Kelsey; Elinski, Kristen; Gaudette, Zachary; Watkins, Anthony; Bhaskaran, Natasha; Kontowicz, Eric; Schmitt-Matzen, Emily; Chan, Allison; Rochte, Nick; Oja, Tim; Conley, Joseph; Rinaldi, Rachel; Kirby, Caitlin; Frayer, Megan; Goldsworthy, Jessica; Tauscher, Samantha; Kesler, Kathryn; Griffin, Caleigh; Meyers, Janaan; Klein, Chelsey; Rotondo, Robert; Vanalst, Andrew; Davis, Malcolm; Thacker, Samantha; Ungkuldee, Mellissa; Beckner, Jennifer ; Tahawi, Ahmad ; Kechner, Megan; Hess, Andrea; Price, Katrina; Brandon, Xavier; Kaur, Yeshkirat; Bumler, Melanie; Nazee, Marla; Kiryakoza, Morgan; Wysocki, Caitlin; Henry, Marie-Louise; Stoub, Hayden; Hyde, George; Tawa, Alex ; Strohm, Alexandra ; Kranz, Zach; Howard, Kaleb; Hami, Davin; Rotondo, Anthony; Nemeth, Emily; Vlk, Allison; Hare, Ashley; Kadouh, Ali; Mancini, Ben; Ungkuldee, Alisha; Vanderploeg, Matt; Mourad, Jad; Khaykin, Valerie; Warsame, Huda; Leff, Maggie; Sophie, Lamphier; Frederick, Ezenyilimba; Bernstein, Kadie; Eberhardt, Kaitlyn

Undergraduate Students in CUREs (who disseminated research via Presentations; talks & posters)
2011-present (student presenter(s) in bold).

Note: *The University Undergraduate Research and Arts Forum (UURAF) is a place where students who work in professional research labs on campus present their findings at the end of Spring Semester. The students listed below presented findings from their research in an introductory biology course lab CURE. Some won awards.*

2021 MSU UURAF: (virtual, COVID)

1. **Troy Todd** and Douglas Luckie (2021) FMR1 gene expression in homo sapiens and Boer goats by recording responses to visual physical cues. Talk.
2. **Hannah Rick** and Douglas Luckie (2021) Defense response in Sciurus carolinensis after predator playback and its link to human DRD4 gene. Talk.
3. **Anthony Tundo** and Douglas Luckie (2021) Behavioral responses of Sciurus. Talk.

2020 MSU UURAF: (cancelled, COVID)

2019 MSU UURAF: *one student won an award*

1. **(FIRST PLACE AWARD) Emma Bush** and Douglas Luckie (2019) PCR assay to detect F508DEL mutation on the CFTR gene. Talk.
2. **Nitya Deshpande, Cameron Bennett, Sara Moussa, Ritika Sanikommu** and Douglas Luckie (2019) Genotypic identification of CBAVD through the R117H mutation using allele specific PCR. Poster.
3. **Abby Struble** and Douglas Luckie (2019) amplification of DELTA-F508 mutation in CFTR gene in homo sapiens using allele specific PCR and gel electrophoresis. Talk.
4. **Matthew Cederman** and Douglas Luckie (2019) Reducing false positive results of G551D-CFTR mutation using three primer confirmation and PME1 restriction enzyme. Talk.
5. **Cameron Bennett** and Douglas Luckie (2019) Genotypic identification of CF patients with the R117H mutation of CFTR using buccal cell DNA and allele specific PCR. Talk.
6. **Maggie Leff** and Douglas Luckie (2019) G551D-CFTR mutation detection assay. Talk.

2018 MSU UURAF:

1. **Danielle Guist** and Douglas Luckie (2018) Detection of the R117H mutation in the human CFTR genome for mild cystic fibrosis utilizing allele specific PCR. Poster.

2017 MSU UURAF: *one student won an award*

1. **(FIRST PLACE AWARD) Cassie Dutcher** and Douglas Luckie (2017) Decreased mean flight initiation distance when feeding recorded in fox squirrels and humans. Talk.
2. **Davin Hami** and Douglas Luckie (2017) Video recording of human and mallard duck response rate which increase with higher environmental sound frequencies. Talk.
3. **Hannah Zawisa** and Douglas Luckie (2017) Homolog discovery in homo sapiens and equus caballus by identifying the ATP7b gene via PCR and gel electrophoresis. Talk.
4. **Lauren Eby** and Douglas Luckie (2017) Investigation of tryptophan hydroxylase 1 gene in suicide attempters and a homolog using PCR. Poster.
5. **Lauren Mileto** and Douglas Luckie (2017) Audio playback demonstrates reliance on visual communication in social settings in fox squirrels and humans. Talk.
6. **Elizabeth Barton** and Douglas Luckie (2017) Observational and predator playback study finds urgency behavior in the black-capped chickadee. Talk.
7. **Phoebe Holmes** and Douglas Luckie (2017) Observational study finds correlation between urgency and communication behavior in homo sapiens. Talk.

2015 MSU UURAF:

1. **Marie-Louise Henry** and Douglas Luckie (2015) PCR reveal homology of CFTR gene between Homo sapien, Mus musculus, and Corvus brachyrhynchos. Talk.
2. **George Hyde** and Douglas Luckie (2015) PCR genotypic cloning of SOD1 gene of ALS. Talk.
3. **Andrew Van Alst** and Douglas Luckie (2015) Detecting W1282X-CFTR mutation via allele specific PCR primer design. Talk.
4. **George Hyde** and Douglas Luckie (2015) Temperature and nutrients stabilization of aquatic life. Talk.
5. **Morgan Kiryakoza,** Doug Luckie and Kendra Cheruvelil (2015) The adverse effects on macrophytes when exposed to emulsifiers. Talk.
6. **Andrea Hess** and Douglas Luckie (2015) Effects of salt and temperature on phytoplankton. Talk.
7. **Hayden Stoub**, **Linda Chen, Kealan Millies-Lucke, Mellissa Ungkuldee** and Douglas Luckie (2015) Huntington's disease: a biomolecular and psychosocial study. Talk.

2014 MSU LBC Research Symposium: *one student group won an award*

1. **(GRAND PRIZE AWARD) Ahmad Tahawi, Caleigh Griffin, Greg Ribble and Katy Kesler**, and Douglas Luckie (2014) PCR and gel electrophoretic analysis of canine cells to reveal R812W and R1456W missense mutation on the CFTR gene. Poster.

2014 MSU UURAF:

1. **Megan Kechner** and Douglas Luckie (2014) 30 DAYS: investigating the social and psychological implications of cystic fibrosis. Poster.
2. **Abdulraouf Abbas** and Douglas Luckie (2014) PCR smear yield for cystic fibrosis g551d mutation diagnostic assay in homo sapien IB3-1 cells. Poster.
3. **Jesse Kato** and Douglas Luckie (2014) Inconclusive detection of the W1282X CF mutation in IB3-1 cells using a pcr diagnostic assay. Poster.
4. **Ahmad Tahawi** and Douglas Luckie (2014) PCR and gel electrophoretic analysis of canine cells to reveal R812W missense mutation on CFTR gene. Poster.
5. **Kathryn Kesler** and Douglas Luckie (2014) CF in dogs: designing a diagnostic test for the R1456W-CFTR mutation in canines. Poster.

2013 MSU UURAF:

1. **Eric Kontowicz, Jacob Aubry** and Douglas Luckie (2013) HCO3 transport recovery in cold-corrected CF ΔF508 lung epithelial cells treated with PDE inhibitors. Poster.
2. **Lauren Lendzion, Hillary Albert, Anthony Dimovski** and Douglas Luckie (2013) Microphysiometry and iodide efflux indicate DHP 4E improved iodide-transport and potentially lowered acidification rates in 508-8 CFTR cells. Poster.
3. **Hassan Fadel** and Douglas Luckie (2013) Diagnosing hypolactasia by genotyping gene MCM6 SNP C/T-13910 in intestinal villi cell lines via allele specific PCR. Talk.
4. **Nicholas Fernandez, Nicole Patel, Paul Singh** and Douglas Luckie (2013) VX-809 dependent decrease in extracellular acidification in mouse ΔF508 epithelial cells. Poster.
5. **Leah Brynaert, Lauren Kustasz, Chuck Ternes** and Douglas Luckie (2013) Thapsigargin treated CFTR delta-F508 mouse mammary cells effects on chloride flux and ion flux assays. Poster.
6. **Kim Vi** and Douglas Luckie (2013) Use of PCR to diagnose DMD in human cells by the deletion of exon 47 on the dystrophin gene. Poster.
7. **Thayer Morton** and Douglas Luckie (2013) Identification of HIS1069GLN mutation of ATP7B gene using allele-specific PCR. Poster.

2012 MSU UURAF: *one student won an award*

1. **(FIRST PLACE AWARD) Stephen Manning** and Douglas. Luckie (2012) Detection of the single base mutation, C1824t, in the LMNA gene of human epithelial cells using Yaku PCR design. Poster.

2. **Allison Chan** and Douglas Luckie (2012) PCR detection of the N314D mutation on the Galt gene for galactosemia Type I in S9 human epithelial cells. Poster.
3. **Bo Parsons** and Douglas Luckie (2012) 4-Primer PCR assay amplifies exon 8 in SMN1 for SMA patients using human buccal cells. Poster.

2011 MSU UURAF: *one student group won an award*

1. **(FIRST PLACE AWARD) Kristina Knirk, Nicole Arcy, Tyler Ash, Jonathon Walters** and Douglas Luckie (2011) Using PCR to diagnose E6V sickle cell anemia in human genomic DNA. Poster.
2. **Joy Burrell** and Douglas Luckie (2011) Identification of F2853S mutation of PKD in S9 cells using site-specific primers in PCR and gel electrophoresis. Poster.
3. **Kaitlyn Buhlinger, Steve Muresan, Andrea Parker, Jose Zamora-Sifuentes** and Douglas Luckie (2011) Diagnosis of Muscular Dystrophy using PCR to isolate the 45th exon of the DMD gene. Poster.
4. **Jordon Van De Velde** and Douglas Luckie (2011) Identification of the Haemochromatosis promoting C282Y mutation using allele specific primers on human DNA. Poster.
5. **Kelsey Leicht** and Douglas Luckie (2011) A successful PCR assay for the microsatellite repeat status of the FMR1 gene in Homo sapiens suspended epithelial cells. Poster.
6. **Emily Schmitt-Matzen, Jacob Aubry, Jillian Harold, Soo Hur** and Douglas Luckie (2011) W1282X mutation in CF human IB3 cells aims to yield effective PCR assay. Poster.
7. **Raef Fadel** and Douglas Luckie (2011) AS-PCR successful identification of C282Y mutation. Poster.
8. **Anthony Lai** and Douglas Luckie (2011) Huntington's disease detected in homo sapien Calu lung epithelial cells based on CAG microsatellites in MHTT via PCR. Poster.
9. **Sean Benner** and Douglas Luckie (2011) Diagnosing a human cell with Huntington's disease by using PCR to identify the number of CAG expansions. Poster.
10. **Daniel Buhlinger, Shelbe Vollmer** and Douglas Luckie (2011) Positive PCR amplification of mutated CAG repeat on HTT gene and social study of Huntington's disease patients. Poster.