

CURRICULUM VITAE

NAME: LAWRENCE EDWARD WINESKI

BIRTH: June 29, 1949; Fort Dix, New Jersey.
CITIZENSHIP: USA

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EDUCATION:

University of Illinois at the Medical Center, Chicago (1976-1980). Ph.D., Anatomy (Functional and Evolutionary Morphology), 1981.

San Francisco State University; San Francisco, CA (1972-1976). M.A., Biological Sciences (Ecology and Systematic Biology), 1977.

California State University at Fullerton; Fullerton, CA (1969-1972). B.A., Biological Science, 1972.

Fullerton Junior College; Fullerton, CA (1967-1969).

POSTGRADUATE TRAINING:

Visiting Professor (Sabbatical), Department of Cell Biology, Emory University School of Medicine, Atlanta, GA (1999-2000). Lab Director: Dr. Arthur W. English.

Research Associate, Department of Oral Anatomy, University of Illinois at the Medical Center, Chicago (1982-1983). Lab Director: Dr. Susan W. Herring.

Postdoctoral Scholar, Division of Biological Sciences, The University of Michigan, Ann Arbor (1981-1982). Lab Director: Dr. Carl Gans.

Wetenschappelijk Medewerker ("Scientific Officer"), Department of Anatomy and Embryology, State University of Groningen, The Netherlands (1980-1981). Lab Director: Dr. Wim. A. Weijs.

EMPLOYMENT HISTORY:

- 1983-Present** Assistant Professor (1983-1989)/Associate Professor (1989-2009)/Professor (2009-), Department of Pathology and Anatomy, Morehouse School of Medicine, Atlanta, Georgia.
- 1982-1983** Research Associate, Department of Oral Anatomy, University of Illinois at the Medical Center, Chicago, IL.
- 1981-1982** Postdoctoral Scholar, Division of Biological Sciences, The University of Michigan, Ann Arbor, MI.
- 1980-1981** Wetenschappelijk Medewerker ("Scientific Officer"), Department of Anatomy and Embryology, State University of Groningen, Groningen, The Netherlands.
- 1978-1980** Instructor in Anatomical Sciences, Illinois College of Podiatric Medicine, Chicago, IL.
- 1976-1980** Teaching Assistant in Anatomy, University of Illinois at the Medical Center, Chicago, IL.
- 1973-1975** Anatomical Preparator for Museum of Human Anatomy (San Francisco State University) and for Docent Society, San Francisco Zoo.
- 1972-1976** Lecturer/Instructor in Biology, San Francisco State University.

HONORS/AWARDS:

- 1971, 1972** Senior Tutor in Biology for Educational Opportunities Program, California State University at Fullerton; Fullerton, CA. (Academic Award)
- 1972** Senior Laboratory Assistant in Mammalian Anatomy and Physiology, California State University at Fullerton; Fullerton, CA. (Academic Award)
- 1989-2000** Adjunct Faculty, Department of Biology, Georgia State University, Atlanta.
- 1992-Present** Member, Graduate Faculty of the Morehouse School of Medicine, Atlanta, Georgia.
- 1999-2000** Visiting Professor, Department of Cell Biology, Emory University School of Medicine, Atlanta, Georgia.
- 2005** Included in Academic Keys Who's Who in Medical Sciences Education.
- 2005** Citation for Exemplary Service at the National Association of Historically Black Colleges and Universities Technical Assistance Workshop, June 22-24, 2005, Atlanta, Georgia.
- 2006** Certificate of Appreciation from the Morehouse School of Medicine MD Class of 2009. March, 2006.
- 2007** Included in Marquis Who's Who in America, 61st Edition. New Providence, NJ.
- 2007** Award of Excellence from the Morehouse School of Medicine MD Class of 2010. April, 2007.
- 2007** Included in Leading Health Professionals of the World 2007. International Biographical Centre, Cambridge, England.
- 2008** Included in Marquis Who's Who in the World, 25th Edition. New Providence, NJ.

- 2008** Included in Marquis Who's Who in Science and Engineering, 10th Edition, 2008-2009. New Providence, NJ.
- 2009** "Oscar" for Excellence in Teaching from the Morehouse School of Medicine MD class of 2012. April, 2009.
- 2010** Faculty Appreciation Award from the Morehouse School of Medicine MD class of 2013. March, 2010.
- 2011** Marshal, 2011 Commencement Exercises, Morehouse School of Medicine. Selected by graduating MD Class of 2011.
- 2012** Faculty Appreciation Award from the Morehouse School of Medicine MD class of 2015. April, 2012.
- 2012** Dean's Outstanding Teaching Award for Achievement in Teaching, Office of the Dean, Morehouse School of Medicine. May, 2012.
- 2014** Faculty Appreciation Award from the Morehouse School of Medicine MD class of 2017. April, 2014.

PROFESSIONAL SOCIETIES:

American Association of Anatomists.

American Association of Clinical Anatomists.

International Association of Medical Science Educators

International Brain Research Organization/World Federation of Neuroscientists (IBRO/WFN).

International Society of Vertebrate Morphology.

PROFESSIONAL SERVICE:

A. Extramural

1. Ad Hoc Reviewer:
 - a. American Association of Anatomists News (Book and meeting reviews).
 - b. Anatomical Record
 - c. Anatomical Sciences Education
 - d. Cells, Tissues, Organs (formerly Acta Anatomica)
 - e. Clinical Anatomy
 - f. Growth, Development & Aging
 - g. Journal of Comparative Physiology, A (Sensory, Neural, and Behavioral Physiology)
 - h. Journal of Morphology
 - i. Medical Education Online

2. Reviewer (textbooks; computer-based instructional materials; electronic media):
 - a. Lippincott Williams & Wilkins Publishers, Baltimore, MD (2000-present).

3. Co-Editor, Education Website Exam Question Database, Educational Affairs Committee, American Association of Anatomists (2002-2012).

4. Board/Committee Membership:
 - a. Anatomical Board of Georgia (Member; 1984-present).

- b. D. Dwight Davis Award Committee (Best Student Paper), Division of Vertebrate Morphology, American Society of Zoologists (1985, 1986; Chair, 1986).
 - c. Basmajian/Williams & Wilkins Award Committee (Research and Teaching in Gross Anatomy), American Association of Anatomists (1993-1996, Chair, 1995-1996).
 - d. Electronic Abstract Submission Test Committee, Society for Neuroscience (1999).
 - e. Educational Affairs Committee, American Association of Anatomists (2004-2007).
 - f. Lippincott Williams & Wilkins Anatomy Advisory Board (2005-present).
 - g. Basmajian Award Committee (Excellence in Teaching and Research in Human or Veterinary Gross Anatomy), American Association of Anatomists (2008-2011; Chair, 2010-2011).
 - h. Task Force on the Basmajian Award, American Association of Anatomists, 2011 (Chair).
 - i. Abstract Review Committee, Annual Meetings of American Association of Clinical Anatomists. 2012, 2013, 2014.
 - j. Journal Trust Fund and Investment Committee, American Association of Anatomists, 2012-2015.
5. Session Chair:
- a. 4th International Congress of Vertebrate Morphology, Chicago, Illinois (1994).
 - b. Teaching Innovations II (American Association of Anatomists), Experimental Biology 2005, San Diego, CA.
 - c. Teaching Innovations I (American Association of Anatomists), Experimental Biology 2007, Washington, D.C.
6. Invited Speaker:
- a. Memorial Service for Body Donors, Georgia Medical Schools Body Donor Programs (1990-2012).
 - b. "Interactive Electronic Media in Anatomy Education." National Association of Historically Black Colleges and Universities Title III Administrators Technical Assistance Workshop. June 22, 2005, Atlanta, GA.
 - c. "Be the Apple of My Eye: Demonstrating the Actions of the Extraocular Muscles." In, Tips and Techniques for Teaching Core Anatomy Concepts. American Association of Anatomists Annual Meeting/EB 2008. April 7, 2008, San Diego, CA.
7. Career Development Mentor. Annual Meetings of American Association of Clinical Anatomists (2002-present).
8. Study Sections:
- a. Review Panel, NIH (National Institute of General Medical Science [NIGMS], Minority Biomedical Research Support [MBRS], Support of Continuous Research Excellence [SCORE], Divisions of Neuroscience and Physiology). February, 2005.

B. Institutional

1. Coordinator, Morehouse School of Medicine Willed Body Program (1986-1990). Program discontinued in 1990.
2. Director, Anatomy Teaching Laboratories (2009-present).
3. First-Year Medical Curriculum Discipline Director for Gross Anatomy and Embryology (2009-present).
4. Course Director for Organ Systems 1, First-year medical curriculum (2009-present)
5. Committees:
 - Admissions Committee (1983-1984).
 - Admissions Committee, Graduate Education in Biomedical Sciences (1997-1998).
 - Business Office Ad Hoc Committee on Purchasing Cards (1998-1999).
 - Curriculum Committee (1989-1992; 2013-present).
 - Curriculum Subcommittee on Evaluation of Clinical Clerkships (1990-1992).
 - Curriculum Subcommittee on Evaluation of Teaching (1983-1984; 1989-1992).
 - Curriculum Subcommittee on Radiology (1990-1991; Chair).
 - Curriculum Subcommittee (Preclinical Course Review Subcommittee [PCRS])(2013-present).
 - Curriculum Subcommittee (Preclinical Course Review Subcommittee [PCRS]) - Subcommittee to develop peer review documents (2014; Chair).
 - Department of Pathology and Anatomy Faculty Search Committee (2009-present; Chair 2009-present).
 - Division of Information Technology Ad Hoc Committee on Anatomy Web-Site (1998-1999).
 - Institutional Effectiveness Committee (SACS Review)(1999-2000).
 - Institutional Self-Study Committee: Faculty (LCME Review)(1989-1990; 1996-1997; 2003-2004 [Co-Chair]).
 - Institutional Self-Study Committee: Instructional Technology and Support (LCME Review)(2012-2013).
 - Intellectual Property Committee (2004-present).
 - Library Committee (1985-1989; 1993-1999; 2000-2006).
 - Student Academic Progress and Promotions Committee (1984-1986; 1988-1996; Chair 1995-1996).

C. COMMUNITY SERVICE/OUTREACH

1. Invited Speaker: "Human Anatomy, Medicine, and Health."
 - a. Avondale Elementary School (1st, 4th, 5th grades), DeKalb County Public School System, Georgia (1991-2001).
 - b. Glennwood Elementary School (4th grade), City Schools of Decatur, Georgia (2000).
 - c. Renfroe Middle School (7th grade), City Schools of Decatur, Georgia (1998, 2002).
 - d. Hooper Alexander Elementary School (1st grade), DeKalb County Public School System, Georgia (2003).
2. Science Committee (Member), Glennwood Elementary School, City Schools of Decatur, Georgia (1999-2000).
3. Science Curriculum Committee (Member), City Schools of Decatur, Georgia (2001-2003).
4. Speaker, Mini-Medical School Workshop (Human Anatomy), National Youth Leadership

- Forum on Medicine, Morehouse School of Medicine. Summer, 2003-2011.
5. Human Anatomy Laboratory Workshops at Morehouse School of Medicine:
 - a. The King's Academy (High School Anatomy & Physiology class), Woodstock, GA. April, 2006; December, 2007; January, 2009; December, 2009; January 2011; December, 2012; November, 2013).
 - b. Romar Academy (grades 4, 5), Atlanta, GA. September, 2008.
 - c. Holy Innocents High School (Anatomy & Physiology class), Atlanta, GA. December, 2008; November, 2009
 - d. Mini-Medical School Program (High School outreach program sponsored by Morehouse School of Medicine): March, 2009; July, 2010.

TEACHING ACTIVITIES:

A. Courses Taught (Morehouse School of Medicine):

1. Morehouse School of Medicine Integrated First-Year Medical Curriculum (A series of four integrated block courses in human gross anatomy, embryology, histology, cell biology, neurobiology, physiology, and biochemistry): 2008-present. Course Director for Organ Systems 1 and Discipline Director for Gross Anatomy and Embryology (2008-present).
2. Academic Medicine (4th Year Elective; Department of Family Medicine): 2006-2012.
3. Human Biology. Graduate Education in Biomedical Sciences (GEBS) Curriculum. 2012-
4. Principles of Anatomy and Physiology I. Master of Science in Medical Sciences Program. 2012-present.
5. Principles of Anatomy and Physiology II. Master of Science in Medical Sciences Program. 2013-present.
6. Introduction to Human Anatomy. Post-Baccalaureate Certificate Program. 2012.
7. Cells and Tissues. Graduate Education in Biomedical Sciences (GEBS) Curriculum. 2008-2011.
8. Surgical Anatomy and Operative Techniques (Department of Obstetrics and Gynecology): 2006-2007.
9. Human Morphology (An integrated course in human gross anatomy, embryology, histology, and cell biology): 1995-2008. Course Director (1995-1999); Course Co-Director (2006-2008).
10. Human Gross Anatomy and Embryology: 1983-1995; Course Director (1984-1995).
11. Paramedic Training Courses: Anatomy Review (Fulton County Public Safety Training Center for Emergency Medical Technicians; Georgia Baptist Medical Center LifeFlight Program: 1990-1999.
12. Human Histology: 1990-1995 (Selected lectures/labs).
13. Medical Physiology: 1988-1990 (Selected lectures).
14. Introduction to Clinical Methods: 1984-1986 (Small Group Discussion Facilitator).
15. Human Neuroanatomy: 1983-1985 (Selected lectures/labs).

B. Invited Teaching/Courses Taught (Other Universities):

1. Senior Laboratory Assistant (Spring Semester, 1972): Mammalian Anatomy and Physiology. Department of Biology, California State University at Fullerton, Fullerton, CA
2. Lecturer/Instructor (1972-1976): General Biology; Human Anatomy; Comparative Vertebrate

- Anatomy. Department of Biology, San Francisco State University, San Francisco, CA.
3. Teaching Assistant (1976-1980): Human Gross Anatomy; Medical Curriculum Histology; Nursing Curriculum Anatomy. Department of Anatomy, University of Illinois at the Medical Center, Chicago, IL.
 4. Instructor (1978-1980): Human Gross Anatomy; Human Histology; Lower Extremity Gross Anatomy. Department of Anatomy, Illinois College of Podiatric Medicine, Chicago, IL.
 5. Visiting Faculty (Fall Semester, 1992): Human Gross Anatomy Lab Instruction. Department of Anatomy, Emory University School of Medicine, Atlanta, GA.
 6. Visiting Lecturer (January, 1998): Development and Growth of Organ Systems (Human Reproductive Physiology). Nell Hodgson Woodruff Graduate School of Nursing, Emory University, Atlanta, GA.
 7. Invited Faculty (August-September, 2004): Selected dissection labs in Human Gross Anatomy. Department of Cell Biology, Emory University School of Medicine, Atlanta, GA.
 8. Invited Lecturer (Telelecture: A live, interactive, internet-2 lecture)(November, 2004): The Temporal Region of the Head. Department of Cell and Developmental Biology, University of North Carolina School of Medicine at Chapel Hill.
 9. Adjunct Faculty (Fall, 2011, 2012, 2013): Comparative Vertebrate Anatomy. Department of Biology, Morehouse College, Atlanta, GA.

C. Courses Developed (Morehouse School of Medicine):

1. Paramedic Training Courses (Fulton County Public Safety Training Center for Emergency Medical Technicians; Georgia Baptist Medical Center LifeFlight Program) in the Department of Anatomy, Morehouse School of Medicine. In collaboration with Dr. Alvin Brewer (1990-1999).
2. Human Morphology (An integrated course in human gross anatomy, embryology, histology, and cell biology): 14.0 credit hours; 326 contact hours. In collaboration with Dr. Douglas Paulsen (1996).
3. Surgical Anatomy and Operative Techniques (A review of pelvic anatomy and introduction to surgical procedures for Residents, Department of Obstetrics and Gynecology). In collaboration with Dr. LaSonya Roberts (2006).
4. Anatomy Education in Academic Medicine (Develop and direct projects in anatomy education for students enrolled in the Academic Medicine 4th year elective). In collaboration with Dr. George Rust. (2006).
5. Morehouse School of Medicine Integrated First-Year Medical Curriculum (A series of four integrated block courses in human gross anatomy, embryology, histology, cell biology, neurobiology, physiology, and biochemistry). In collaboration with other first-year curriculum Course Directors. (2008).

D. Advising/Mentoring/Tutoring (Morehouse School of Medicine):

1. Academic Advisor for Medical Students (1983-1999; 2000-present).
2. Review classes for NBME subject (miniboard) examinations (Gross Anatomy and Embryology; Cell Biology and Histology; Review classes for NBME Step I Examination (1983-present).
3. Research Mentor, Minority High School Students Research Apprentice Program (1990-1995).

4. Research Supervisor for undergraduate students (N=9); MARC/HURT, MBRS, and NASA programs (1991-1998, 2001-2003).
5. Temporary Advisor for graduate students in Graduate Education in Biomedical Sciences program: Ms. Janice Savage (1996-1998); Mr. Phillip Fabrizio (1998-1999).
6. Co-supervisor, NASA Postdoctoral Fellow (Dr. D.A. von Deutsch)(1996-2000).

E. Continuing Education:

1. Effective Teaching: Improving Your Skills. A Continuing Education Course for Medical School Faculty. The Medical College of Pennsylvania, Philadelphia, PA. June 4-8, 1984.
2. Workshop: How to Talk to Children in Schools. Annual Meetings of Society for Neuroscience, Washington, D.C. November 7, 1993.
3. K-12 Science Education Workshop. Annual Meetings of Society for Neuroscience, Miami Beach, FL. November 12, 1994.
4. Issues in the Admission, Evaluation, and Promotion of Disabled Students. AAMC Management Education Programs. Leesburg, VA. September 28-30, 1995.
5. Using the internet for teaching and learning the basic sciences. International Association of Medical Science Educators (IAMSE) Winter Webcast Audio Seminar Series. January-February, 2004.
6. Learner-centered strategies for the lecture hall. International Association of Medical Science Educators (IAMSE) Fall Webcast Audio Seminar Series. October-November, 2006.
7. Postgraduate course: Clinical Anatomy of the Knee. Annual Meetings of American Association of Clinical Anatomists, June, 2007, Las Vegas, NV
8. Postgraduate course: Surgery and Technology Meet Anatomy. Annual Meetings of American Association of Clinical Anatomists, July, 2011, Columbus, OH
9. Postgraduate course: Anatomy and Ultrasound. Annual Meetings of American Association of Clinical Anatomists, July, 2012, St. George's University, Grenada.

RESEARCH GRANTS (Funded):

1. Co-investigator, NIH (NIDR) R01-DE05905: Neural organization of a complex muscle. PI: Dr. S. W. Herring, University of Illinois Health Sciences Center, Chicago. Direct costs: \$200,000- (1983-1989).
2. Subproject Principal Investigator, NIH (RCMI) RR03034: Morphology and neural organization of the vibrissae-operating facial musculature in rodents. Program Director: Dr. G. Bailey. Direct costs: \$62,000- (1986-1990).
3. Principal Investigator: NIH (NIDR) R03-DE09038, A model for experimental studies of facial muscles. Direct costs: \$15,000- (1989-1990).
4. Principal Investigator, NIH (BRSG) Core Equipment Grant: Photomicrography system. Direct costs: \$5,200- (1990).
5. Subproject Principal Investigator, NIH (MBRS) S06-GM08248: Neural organization of facial muscles. Program Director: Dr. W.W. Sullivan. Direct costs: \$245,000- (1990-1994).
6. Research Associate, National Endowment for the Humanities RK-20029-93: Covert medical practices in nineteenth-century Georgia. PI: Dr. R.L. Blakely, Georgia State University, Atlanta. Direct costs: \$99,800- (1993-1995).

7. Principal Investigator, NIH Small Instrumentation Grant S15-EY10355: Hacker-Bright microtome cryostat. Direct costs: \$34,980- (1993-1994).
8. Subproject Principal Investigator, NIH (MBRS) S06-GM08248: Fiber type composition of facial muscles. Program Director: Dr. W.W. Sullivan. Direct costs: \$224,600- (1994-1998).
9. Co-Investigator, National Aeronautics and Space Administration (NASA) NCCW-0083: Minority University Space Medicine and Life Sciences Research Center (Musculoskeletal Group). PI: Dr. M. Thierry-Palmer. Direct costs: \$5,900,000- (1995-2000).
10. Subproject Co-investigator, NASA NCC9-112: B-adrenoceptor dynamics and signal transduction events: Alterations induced by hindlimb suspension. PI: Dr. I.K. Abukhalaf. Direct costs: \$350,000- (2000-2005).
11. Co-Investigator, NASA NCC2-1262: Joint research on space-related biological issues. PI: Dr. G. Sonnenfeld. Direct costs: \$104,895- (2001-2002).
12. Partner and Member of the Advisory Board, Department of Education Comprehensive Program Fund for the Improvement of Postsecondary Education P116B010181: Web-based materials for the enhancement of anatomical instruction in the health sciences. Co-PIs: Dr. N.A. Granger, Dr. O.W. Henson (University of North Carolina at Chapel Hill School of Medicine). Direct costs: \$498,420 (2001-2005).
13. Principal Investigator, National Science Foundation (NSF) 0211727: Functional organization of facial muscles. Direct costs: \$347,510- (In Revision).
14. Principal Investigator, National Library of Medicine, Integrated Advanced Information Management Systems: Development of a digital curriculum in human anatomy. Direct costs: \$75,000 (In Preparation).

Ph.D. DISSERTATION:

Mechanisms of movement of the vibrissae in the golden hamster, Mesocricetus auratus.
 Department of Anatomy, University of Illinois at the Medical Center, Chicago, 1981.
 Thesis advisor: Dr. Susan W. Herring.

JOURNAL ARTICLES:

1. Wineski, L.E. 1983. Movements of the cranial vibrissae in the golden hamster (Mesocricetus auratus). J. Zool. (London) 200:261-280.
2. Wineski, L.E. and C. Gans. 1984. Morphological basis of the feeding mechanics in the shingle-back lizard Trachydosaurus rugosus (Scincidae: Sauria: Reptilia). J. Morph. 181:271- 295.
3. Wineski, L.E. 1985. Facial morphology and vibrissal movement in the golden hamster. J. Morph. 183:199-217.
4. Wineski, L.E. and S.W. Herring. 1985. Innervation and function in the masseter complex of the pig. In: H-R. Duncker and G. Fleischer (Eds.), Functional Morphology in Vertebrates. (Fortschr. Zool. 30). Gustav Fischer Verlag, Stuttgart. pp. 285-287.
5. Herring, S.W. and L.E. Wineski. 1986. Development of the masseter muscle and oral behavior in the pig. J. Exp. Zool. 237:191-207.
6. Herring, S.W., L.E. Wineski, and F.C. Anapol. 1989. Neural organization of the masseter muscle in the pig. J. Comp. Neurol. 280:563-576.

7. Herring, S.W., L.E. Wineski, and F.C. Anapol. 1989. Organization of the masseter muscle and nerve. In: H. Splechtna and H. Hilgers (Eds.), *Trends in Vertebrate Morphology* (Fortschr. Zool. 35). Gustav Fischer Verlag, Stuttgart. pp. 318-320.
8. Wineski, L.E. and A.W. English. 1989. Phenoxyethanol as a nontoxic preservative in the dissection laboratory. *Acta Anat.* 136:155-158.
A. Technique adopted by several anatomy facilities, including Morehouse School of Medicine, Emory University School of Medicine, University of Puerto Rico School of Medicine, University of Calgary (Canada; Department of Biological Sciences).
9. Herring, S.W., F.C. Anapol, and L.E. Wineski. 1991. Motor unit territories in the masseter muscle of infant pigs. *Arch. Oral Biol.* 36:867-873.
10. Abukhalaf, I.K., D. von Deutsch, L. Wineski, B. Parks, D. Paulsen, H.Y. Aboul-Enein, D.E. Potter. 2000. Comparative analytical quantitation of clenbuterol in biological matrices using GC-MS and EIA. *Biomed. Chromatography* 14:99-105.
11. von Deutsch, D.A., I.K. Abukhalaf, L.E. Wineski, H.Y. Aboul-Enein, S.A. Pitts, B.A. Parks, R.A. Oster, D.F. Paulsen, D.E. Potter. 2000. β -Agonist-induced alterations in organ weights and protein content: Comparison of racemic clenbuterol and its enantiomers. *Chirality* 12:637-648.
12. von Deutsch, D.A., I.K. Abukhalaf, H.Y. Aboul-Enein, L.E. Wineski, D.E. Potter. 2001. Response: Enantiomeric effects of clenbuterol: Is it (-)-R, (+)-S, or both? *Chirality* 13:281-284.
13. Wineski, L.E., D.A. von Deutsch, I.K. Abukhalaf, S.A. Pitts, D.E. Potter, D.F. Paulsen. 2002. Muscle-specific effects of hindlimb suspension and clenbuterol in mature, male rats. *Cells, Tissues, Organs* 171:188-198.
14. von Deutsch, D.A., I.K. Abukhalaf, L.E. Wineski, R.R. Roper, H.Y. Aboul-Enein, D.F. Paulsen, D.E. Potter. 2002. Distribution and muscle-sparing effects of clenbuterol in hindlimb-suspended rats. *Pharmacology* 65:38-48.
15. Abukhalaf, I.K., D.A. von Deutsch, L.E. Wineski, N.A. Silvestrov, S.A. Abera, S.W. Sahlu, D.E. Potter. 2002. Effect of hindlimb suspension and clenbuterol treatment on polyamine levels in skeletal muscle. *Pharmacology* 65:145-154.
16. von Deutsch, D.A., I.K. Abukhalaf, L.E. Wineski, N.A. Silvestrov, M.A. Bayorh, D.E. Potter. 2003. Changes in muscle proteins and spermidine content in response to unloading and clenbuterol treatment. *Canadian J. Physiol. Pharmacol.* 81:28-39.
17. Wineski, L.E. and D.F. Paulsen. 2005. Human morphology: A reference syllabus for an integrated course in human gross anatomy, embryology, and histology. *Medical Education Online*. <http://www.med-ed-online.org> (Resource Section/Curricula and Teaching Materials).
18. Granger, N.A., D.C. Calleson. O.W. Henson, E. Juliano, L. Wineski, M.D. McDaniel, J.M. Burgoon, 2006. Use of web-based materials to enhance anatomy instruction in the health sciences. *Anatomical Record Part B: The New Anatomist* 289B:121-127.
19. Abukhalaf, I.K., C.D. Mitchell, A.W. von Deutsch, C.E. Williams, L.E. Wineski, N.A. Silvestrov, D.A. von Deutsch. 2007. Xanthine oxidase and myoglobin release in post-suspended rats. *Grav. Space Biol. Bull.* 20:93-94.
20. Klement, B.J., D.F. Paulsen, L.E. Wineski. 2011. Anatomy as the backbone of an integrated first-year medical curriculum: Design and implementation. *Anatomical Sciences Education* 4:157-169.

MANUSCRIPTS SUBMITTED/IN PREPARATION:

- Klement, B.J., D.F. Paulsen, L.E. Wineski. Evolution of an anatomy-based integrated curriculum. *Anatomical Sciences Education*. In Prep.
- Wineski, L.E. and B. Klement. Replacing lectures with interactive computerized study guides improves student attitudes and performance in gross anatomy. In Prep.
- Wineski, L.E. Whisking Musculature. *Scholarpedia*. In Prep.
- Klement, B.J., D.F. Paulsen, L.E. Wineski. A reference syllabus for an integrated first-year medical curriculum. In Prep.

REVIEWS/EDITORIALS:

1. Wineski, L.E. 2002. AAA Book Review: *The Musculoskeletal System*. Am. Assoc. Anatomists News 11(3):6-7.
2. Wineski, L.E. 2003. AAA Book Review: *Dorland's Illustrated Medical Dictionary*, 30th Edition. Am. Assoc. Anatomists News 12(4):7-8.
3. Wineski, L.E. 2005. Interactivity, teamwork boosts learning effectiveness. Am. Assoc. Anatomists News 14(2):34-35.
4. Wineski, L.E. 2007. Teaching strategies focus on assessment, active learning. Am. Assoc. Anatomists News 16 (2):31-32.

BOOKS/BOOK CHAPTERS:

1. McFarlin, S.C. and L.E. Wineski. 1997. The cutting edge: Experimental anatomy and the reconstruction of 19th century dissection techniques. In: R.L. Blakely and J.M. Harrington (Eds.), *Bones in the Basement: Postmortem Racism in 19th Century Medical Training*. Smithsonian Institution Press, Washington, D.C. pp. 107-161.
2. Lambert, H.W. and L.E. Wineski. 2010. *Lippincott's Illustrated Q&A Review of Gross Anatomy and Embryology*. Lippincott Williams & Wilkins, Baltimore.
3. Wineski, L.E.. 2012. Contributing Author, Review Questions, In: R.S. Snell, *Clinical Anatomy by Regions*, Ninth Edition. Lippincott Williams & Wilkins, Baltimore.
4. Paulsen, D.P., B. Klement, L.E. Wineski. The role of anatomists in building an integrated medical curriculum. In: W. Pawlina (Ed.), *Teaching Anatomy: A Practical Guide*. Springer Medical Pub., NY. In Press.

AUDIO-VISUAL/COMPUTERIZED EDUCATIONAL MATERIALS:

1. Wineski, L.E. 2000. Human Morphology web-site. (Posted in Blackboard, Morehouse School of Medicine website) Designed and implemented in collaboration with Dr. D. Paulsen, MSM Division of Information Technology, and Mr. G. Larson Sawin.
2. Wineski, L.E. 2001. Osteology of the back: A computerized tutorial in Blackboard. Morehouse School of Medicine.
3. Wineski, L.E. 2001. Osteology of the upper limb: A computerized tutorial in Blackboard. Morehouse School of Medicine.
4. Wineski, L.E. 2002. *The Human Skeleton: Osteology of the Thorax*, V 1.0. CD-ROM. Morehouse School of Medicine.
5. Wineski, L.E. 2002 (V1.0)/2003 (V.1.1). T.I.P.S.: Temporal, Infratemporal, and Pterygopalatine Study Guide. CD-ROM. Morehouse School of Medicine.

- A. Peer-Reviewed: 2004 Clinical Anatomy 17:156-157 (Software Review).
6. Wineski, L.E. 2003/2004. Examination questions on the upper limb and nervous system. Education Website Exam Question Database, Educational Affairs Committee, American Association of Anatomists. Go to www.anatomy.org then follow link to Education & Teaching Tools.
 7. Wineski, L.E. 2005. Organization of the face and scalp, Beta-V1.0. CD-ROM. Morehouse School of Medicine.
 8. Wineski, L.E. 2006. Introduction to Dissection, V1.0. MedEdPORTAL; 2006. www.mededportal.org/publication/232
 9. Wineski, L.E. and J. Williams. 2005. Cross-sectional Anatomy Tutor, V1.0. Posted in Blackboard. Morehouse School of Medicine.
 10. Wineski, L.E., P. Riggins, R. Sealand, C. May. 2007. Introduction to Dissection, V2.0.
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RESEARCH PROGRAMS:

Areas of Interest: Functional and Evolutionary Morphology.
 Neuromuscular Biology.
 Craniofacial Morphology.
 Anatomical Instructional Materials and Techniques.

Techniques Employed: Gross and Micro-Dissection.
 Light Microscopy.
 Audio-visual recording (High-speed movies; video-tape).
 Electromyography (EMG).
 Muscle Histochemistry and Immunocytochemistry.
 Neural and Vascular Tracing.
 Interactive anatomy computer programs.

Specific Programs:

- A. Functional morphology of mammalian facial musculature:
 1. Analysis of the patterning and specific functions of the facial muscles of mammals, with particular emphasis on the relationships of these muscles to the facial vibrissae and the architecture of the orofacial apparatus.
 2. The nature of the myotendinous junction and the tendinous insertions in facial muscles compared with limb muscles.
 3. The neural organization of facial muscles compared with limb muscles.
 4. Effects of aging on the functional properties of facial muscles.

- B. Comparative morphology and evolution of the masticatory system:
 1. Characterization of the masticatory systems of higher vertebrates, with emphasis on patterns in muscle architecture, muscle activity, and biomechanics of the jaws;
 2. Ontogenetic changes in the masticatory system;
 3. Neural organization of the muscles of mastication.

- C. Effects of spaceflight on mammalian skeletal muscles:
 1. Effects of simulated hypogravity (i.e., hindlimb suspension) on the functional properties of facial muscles and limb muscles.
 2. The effects of β -adrenergic agonists (e.g., clenbuterol) on normal and unloaded hindlimb muscles, and normal and hyperloaded facial muscles.

- D. Development of anatomical instructional materials and techniques.
 1. Production of interactive computer programs (CD-ROM and web-based) for instruction in human gross anatomy.
 2. Curriculum design and implementation.