**CURRICULUM VITAE**

Christine M. Eckel, Ph.D.

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Gary, IN 46408 ceckel@iu.edu

**ACADEMIC APPOINTMENT:** Clinical Associate Professor

 Dept. of Anatomy, Cell Biology, and Physiology

 Indiana University School of Medicine, NW Campus

**EDUCATION**

2009 Ph.D. Neurobiology & Anatomy, University of Utah School of Medicine

1997 M.A. Human Biodynamics, University of California, Berkeley

1993 B.A. Integrative Biology, University of California, Berkeley

**ACADEMIC POSITIONS AND EMPLOYMENT**

2019-present **Indiana University School of Medicine**, Gary, IN

 Clinical Associate Professor of Anatomy, Cell Biology, and Physiology

 Site Course Director: Human Structure and Neuroscience & Behavior

2018-2019 **Indiana University School of Medicine**, Indianapolis, IN

 Associate Clinical Professor of Anatomy and Cell Biology

2013-2017 **Carroll College**, Helena, MT

 Associate Professor of Biology (tenure-track)

2009-2013 **West Virginia School of Osteopathic Medicine**, Lewisburg, WV

 Associate Professor of Anatomy (tenure-track)

 Course Director: Medical Gross Anatomy and Medical Microanatomy

2007-2009 **Salt Lake Community College**, Salt Lake City, UT

 Associate Professor of Biology (tenured)

2008 **University of California, Berkeley**, Berkeley, CA

 Visiting Associate Professor, Department of Integrative Biology

2003-2009 **University of Utah School of Medicine**, Salt Lake City, UT

 Graduate Student Researcher and Medical Gross Anatomy Instructor, Department of Neurobiology & Anatomy

2003-2007 **Salt Lake Community College**, Salt Lake City, UT

 Assistant Professor of Biology (tenure-track)

1998-2003 **Salt Lake Community College**, Salt Lake City, UT

 Instructor of Biology (tenure-track)

2000-06, ‘10 **BARD Access Systems**, Salt Lake City, UT

 Biomedical consultant, sales force A&P training instructor

1998 **Merritt College**, Oakland, CA

 Instructor of Biology (adjunct)

1998 **University of California, Berkeley**, Berkeley, CA

 Head Graduate Student Instructor and Guest Lecturer, Department of Integrative Biology

1994-98 **University of California, Berkeley**, Berkeley, CA

 Graduate Student Instructor and Graduate Student Researcher, Departments of Integrative Biology, Molecular and Cell Biology, and Human Biodynamics

**RESEARCH**

2003-09 **Educational Outcomes Research**

 Developing novel teaching materials and methods for the human anatomy course, followed by rigorous testing of their effectiveness. Developed a “cadaver autopsy” project used to integrate gross anatomy, histology, and pathology courses for medical students.

 Supervisor: Kurt H. Albertine, Ph.D.

 Department of Neurobiology & Anatomy, University of Utah

1999 **Prostate Cancer/Tissue Culture Research**

 Learned tissue culture techniques and applied them to the study of prostate cancer cells.

 Supervisor: Darrell K. Murray, Ph.D.

 Department of Endocrinology, University of Utah

1994-97 **Locomotion Biomechanics and Muscle Physiology**

 Studied lizard muscle (in vitro muscle lever experiments) and human and lizard locomotion biomechanics (utilizing EMG, force platform (kinetics), and high-speed video (kinematics).

 Supervisor: Claire T. Farley, Ph.D.

 Department of Integrative Biology, University of California, Berkeley

1991-94 **Musculoskeletal Biomechanics**

 Developed a 3-D computer model of the musculoskeletal system of an insect using SIMM (Software for Interactive Musculoskeletal Modeling).

 Supervisor: Robert J. Full, Ph.D.

 Department of Integrative Biology, University of California, Berkeley

**FELLOWSHIPS AND AWARDS**

2011 Atlas Club Golden Key Teaching Excellence Award, WVSOM

2011 Nominee, Basmajian Award, American Association of Anatomists

2010 Young Faculty Travel Award, American Association of Anatomists

2007-09 Frank L. Christensen Living Trust Endowed Fellowship, University of Utah

2008-pres Golden Key International Honor Society, Golden Key International

2004-07 Student Travel Awards – American Association of Anatomists

2004 Teaching Excellence Award, Salt Lake Community College Foundation

2004 Betty Cook Karrh Endowed P.E.O. Scholar, P.E.O. International

2001 Certificate of Recognition. Disability Resource Center, SLCC

1997 Outstanding Graduate Student Instructor. U.C. Berkeley

1995-96 Margaret Yvonne Long - Class of 1957 Scholarship. U.C. Berkeley

1993-95 Travel Awards - Society for Integrative & Comparative Biology

1991 Pacific Rim Scholarship, Education Abroad. U.C. Berkeley (Costa Rica-

 Tropical Biology Program)

**GRANTS FUNDED**

2010 Intramural Grant ($4,500), West Virginia School of Osteopathic Medicine

2009 Intramural Grant ($28,000), West Virginia School of Osteopathic Medicine

2004 Educational Computing Committee ($3,000), University of Utah

2003 Course Development Grant ($10,000), Utah Electronic College

2002 Author Development Grant ($5,000), McGraw-Hill

2001 Blended Course Development Grant ($35,000), SLCC

2000-8 Faculty Conference Travel Grants ($1,500), SLCC

2000 Instructional Technology Grant ($3,000), SLCC

1999 Special Projects Development Grant ($3,000), SLCC

**EXTRAMURAL PRESENTATIONS AND INVITED LECTURES**

 2018 Invited Speaker: “Integrating Course Curricula with the Cadaver Autopsy Project.” Indiana University School of Medicine Fall Research Forum. IUSM, Indianapolis, IN.

 2018 Invited Lecture: Can You Die from a Broken Heart? Pennsylvania State University

 2018 Invited Lecture: Can You Die from a Broken Heart? West Virginia University School of Medicine

 2018 Invited Lecture: Can You Die from a Broken Heart? Indiana University School of Medicine (Indianapolis)

 2017 Invited Guest: *Take Back Your Health* podcast. Discussion of body donation for educational programs. URL: http://: <http://drdanspeaks.com/96-breaking-mystery-anatomy-dr-> christine-eckel/

 2016 TEDx, Helena, Our Anatomy is the Same and Different: Why Should we Care? URL: <https://www.youtube.com/watch?v=FH3Bbb1W2sw>

 2014 Invited Presenter: PEO Helena Monthly Meeting

 2009 Invited Lecture: Can You Die from a Broken Heart? West Virginia School of Osteopathic Medicine

 2008 Anatomy Teaching Innovations, Experimental Biology Symposium. Integrating course curricula using the cadaver autopsy: insights and adaptations from four year’s experience. FASEB J 22: 236.4, 2008

2005 Anatomy Teaching Innovations, Experimental Biology Symposium.

 Unexpected benefits of the cadaver autopsy project at the University of

 Utah School of Medicine. FASEB J 19(5):A1337/715.5, 2005

2004 Anatomy Teaching Innovations, Experimental Biology Symposium. The cadaver as a teaching tool to integrate gross anatomy, histology, and pathology courses in the first-year medical curriculum. FASEB J 18(5): A772/529.3, 2004

1998 Invited lecture: The hepatic portal system, Salt Lake Community College

1998 Invited lecture: They hypothalamus and pituitary, Lake Tahoe Community

 College

1998 Invited lecture: The hypothalamus and pituitary, Cabrillo College.

1998 Invited lecture: The urinary system, University of California, Berkeley

1995 External mechanical power output during lizard acceleration. Society for

 Integrative and Comparative Biology, Los Angeles, CA, December 26-31,

 1995

**SERVICE TO NATIONAL ORGANIZATIONS**

2009-pres Cadaver Use Committee, Human Anatomy & Physiology Society

 2017-18 Secretary, Human Anatomy & Physiology Society

 2013-17 Membership Committee, Human Anatomy & Physiology Society

 2012 Chair, “Anatomy Education Breakfast Roundtables.” Experimental Biology 2012. San Diego, CA. American Association of Anatomists.

 2012 Symposium Chair, “Educational Research Platform Award Session.” Experimental Biology 2012. San Diego, CA. American Association of Anatomists.

 2011-12 Chair, Course Directors Subcommittee (Educational Affairs Committee) American Association of Anatomists

 2011-12 Strategic Thinking for Undergraduate Recruitment and Programs (STURP) Task Force, American Association of Anatomists

 2011 Symposium Chair, “Teaching Innovations in Anatomy I” Experimental Biology 2011. Washington, DC. American Association of Anatomists

 2010-12 Anatomy Training Program Selection Subcommittee (Educational Affairs Committee) American Association of Anatomists

2009-12 Educational Affairs Committee – American Association of Anatomists

 2008 Chair, “Langman Graduate Student Platform Presentation Award.” Experimental Biology 2008. San Diego, CA. American Association of Anatomists.

 2007-09 Advisory Committee of Young Anatomists (ACYA) - American Association of Anatomists

 2004-08 Western Regional Director (2 terms), Human Anatomy and Physiology Society

2005 Symposium Co-organizer, “Endangered Species: Who Will Teach

 Anatomy in 2010?” Experimental Biology 2005, San Diego, CA (AAA)

2004-06 HAPS Liaison to the American Association of Anatomists

2002-04 Chair, Cadaver Use Committee, Human Anatomy and Physiology Society

**SERVICE TO INSTITUTIONAL GOVERNANCE AND COMMITTEES**

 2020-22 Elected Member: Academic Standards Committee – IUSM

 2020-pres IUSM Northwest Primary Committee – Annual Faculty Review

 2021 Search Committee – Director of Research, IUSM – Northwest

 2020 Chair, Physiology Faculty Search Committee, IUSM - Northwest

 2020 Nurse Educator Faculty Search Committee, IUSM - Northwest

 2019-21 Elected Member: IUPUI Faculty Council Representative, IUSM - Indianapolis

 2013-17 Pre-Physical Therapy and Pre-Physician Assistant Student Advisor, Carroll College

2013-17 Elected Member, Policy Committee, Carroll College

2012 Chair, Virtual Microscopy System Ad Hoc Committee, WVSOM

 2012-14 Elected Member: Osteopathic Principles and Practice Integration Committee, WVSOM

2012-14 Elected Member: Educational Resources Committee, WVSOM

2009-14 Elected Member: Institutional Review Board, WVSOM

2011-13 Advisor to student club: Atlas Club, WVSOM

2011-13 Elected Member: Academic Development Committee, WVSOM

2011-13 Chair, Anatomy Search Committee, WVSOM

2011-12 Textbook Affordability Ad Hoc Committee, WVSOM

2011-12 Academic Appeals Committee, WVSOM

 2010-11 Course Director, Medical Gross Anatomy, WVSOM

 2010-11 Course Director, Medical Microanatomy, WVSOM

 2009-10 Director, Human Gift Registry, WVSOM

2009-10 Laboratory Director, Medical Gross Anatomy, WVSOM

2010-11 Clinical Reasoning/Core Competencies Ad Hoc Committee, WVSOM

2010-11 Foundation Course/New Curriculum Ad Hoc Committee, WVSOM

2001-02 Biology Department Coordinator, Salt Lake Community College (SLCC)

2001-02 Chair, Biology Faculty Search Committees, SLCC

2001-04 Projects and Grants Committee, SLCC

2001 Instructional Technology Task Force, SLCC

1999-01 Biology Department Faculty Senator, SLCC

**AD HOC REVIEWER**

 Anatomical Sciences Education

 The Anatomical Record

 Clinical Anatomy

 Medical Education

**PROFESSIONAL AFFILIATIONS**

1998-pres. Human Anatomy and Physiology Society (HAPS)

2004-pres. American Association for Anatomy (AAA)

2019-pres International Association of Medical Science Educators (IAMSE)

1996-2018 American Physiological Society (APS)

2003-2016 American Association of Clinical Anatomists (AACA)

2008-2012 Textbook & Academic Authors Association (TAA)

1996-2002 American College of Sports Medicine (ACSM)

1995-1997 American Society of Biomechanics (ASB)

1993-1998 Society for Integrative and Comparative Biology (SICB)

**PEER-REVIEWED PUBLICATIONS**

Larrilyn L. Grant MD, MS\*; Michael J. Opperman MD, PhD\*; Brennan Schiller MD; Jonathan Chastain DO; Jennelle Durnett Richardson PhD; **Christine Eckel PhD**; Martin H. Plawecki, MD, PhD.  Medical Student Engagement in a Virtual Learning Environment Positively Correlates with Course Performance and Satisfaction in Psychiatry. *Submitted to Medical Science Educator 12/16/2020*

DeFriez, Curtis, D.A. Morton, D.S. Horwitz, **C.M. Eckel,** K.B. Foreman, and K.H. Albertine. Orthopedic resident anatomy review course: A collaboration between anatomists and orthopedic surgeons. Anatomical Sciences Education, (246) 2011.

**PUBLISHED TEXTBOOKS:**

**Eckel, Christine**, *Human Anatomy Laboratory Manual 3e*, Dubuque: McGraw-Hill Education, 2017.

**Eckel, Christine**, Terry Bidle, and Kyla Ross. *Human Anatomy & Physiology Laboratory Manual: An Integrated Approach 2e – Main, Cat, and Fetal Pig Versions,* Dubuque: McGraw-Hill Higher Education, 2016.

**Eckel, Christine** and Kyla Ross, *Instructor’s Guide for Human Anatomy & Physiology*

*Laboratory Manual: An Integrated Approach 2e* *– Main*, *Cat, and Fetal Pig Versions,* Dubuque: McGraw-Hill Higher Education, 2016.

**Eckel, Christine**, Terry Bidle, and Kyla Ross. *Human Anatomy & Physiology Laboratory Manual: An Integrated Approach 1e – Main, Cat, and Fetal Pig Versions,* Dubuque: McGraw-Hill Higher Education, 2013.

**Eckel, Christine** and Kyla Ross, *Instructor’s Guide for Human Anatomy & Physiology*

*Laboratory Manual: An Integrated Approach 1e* *– Main, Cat, and Fetal Pig Versions*, Dubuque: McGraw-Hill Higher Education, 2013.

**Eckel, Christine**, *Human Anatomy Laboratory Manual 2e*, Dubuque: McGraw-Hill Higher Education, 2011.

**Eckel, Christine**, *Instructor’s Guide for Human Anatomy Laboratory Manual 2e (Update),* Dubuque: McGraw-Hill Higher Education, 2011.

**Eckel, Christine**, *Human Anatomy Laboratory Manual 1e*, Dubuque: McGraw-Hill Higher Education, 2008.

**Eckel, Christine**, *Instructor’s Guide for Human Anatomy Laboratory Manual 1e*,

Dubuque: McGraw-Hill Higher Education, 2008.

Seeley, et.al., *Human Anatomy & Physiology, 8e*. Dubuque: McGraw-Hill Higher Education, 2006 (**C.M. Eckel,** contributing author: musculoskeletal systems).

**Iltis, Christine,** *Instructor’s Guide to Text and Media: Principles of Human Physiology*, San Francisco: Benjamin Cummings, 2002.

**Iltis, Christine**, (Update) *Instructor’s Manual for Essentials of Anatomy and Physiology*, 3/e by Martini and Bartholomew. Prentice Hall, 2003.

**OTHER PUBLICATIONS**

**Eckel, Christine**, *Teaching Innovations I: Guiding Innovation Via Theory & Assessment*. AAA Newsletter, June 2011.

**ABSTRACTS**

**Eckel, CM,** Pratt, RL, Hermey, D, and Hanna, JB. Medical gross anatomy laboratory tours have a positive impact on participant interest in the health care professions. FASEB J. 24(828.6). 2010.

**Eckel CM**, Clayton F, Szakacs JG, Ash JF, and Albertine KH. Integrating course curricula using the cadaver autopsy: insights and adaptations from four year’s experience. FASEB J. 22(236.4), 2008.

DeFriez CB, Foreman KB, **Eckel CM**, Morton DA, Horwitz DS, Mohr RA, and Albertine KH. Orthopedic anatomy summer review course at the University of Utah School of Medicine. FASEB J. 22(768.5), 2008.

**Eckel CM**, Clayton F, Szakacs JG, Ash JF, Albertine KH. Cadaver-based studies increase the value and utility of cadaver dissection in medical education. FASEB J. 20(4): A436, 2006

**Eckel CM**, and Martini R. Who is teaching undergraduate Anatomy and Physiology? A faculty and course profile for 2005-2006. FASEB J. 20(4): LB6, 2006

Morton DA, Foreman KB, Blackham RB, Koehn K, **Eckel CM**, and Albertine KH. Radiographic interactive teaching tool for first-year medical students taking gross anatomy. FASEB J. 20(4): A19, 2006

DeFriez CB, Foreman KB, **Eckel CM**, Morton DA, Horwitz DS, Mohr RA, and Albertine KH. Collaborative human gross anatomy-orthopedic board preparation course at the University of Utah School of Medicine. FASEB J. 20(4):A452, 2006.

**Eckel CM**, Campbell AD, Morton DA, Foreman KB, Lind BK, Peterson KD, and Albertine KH. Choice of dissection guide influences student experience in the human gross anatomy laboratory. FASEB J. 19(4): A781/478.5, 2005

**Eckel CM,** Szakacs JG, Ash JF, Morton DA, Foreman KB, and Albertine KH. Unexpected benefits of the cadaver autopsy project at the University of Utah School of Medicine. FASEB Journal 19(5):A1337/715.5, 2005

Morton DA, Foreman KB, **Eckel CM**, and Albertine KB. Cadaver dissection as a means to improve spatial ability. FASEB Journal 19(5): A1352/771.7, 2005

Foreman KB, Morton DA, **Eckel CM**, and Albertine KH. Use of Macromedia Flash MX® as a tool to deliver imaging material. FASEB Journal 18(4): A20/59.5, 2004

Foreman KB, Morton DA, **Eckel CM**, and Albertine KH. Use of an interactive template to deliver educational material to students enrolled in neuroanatomy. FASEB Journal 18(5): A764/486.7, 2004

**Eckel CM,** Foreman KB, Morton DA, Szakacs JG, Ash JF, and Albertine KH. The cadaver as a teaching tool to integrate gross anatomy, histology, and pathology courses in the first-year medical curriculum. FASEB Journal 18(5): A772/529.3, 2004

**Eckel C.M**. and Farley CT, 1996. Biomechanical limitations to burst locomotor performance. Physiologist 39(5): A-60, 1996.

**Eckel C.M**. and Farley, C.T., 1995. External mechanical power output during lizard acceleration. Am. Zool. 35(5):140A.

Ahn AN, **Eckel CM** and Full RJ. Extensor and Flexor function in exoskeletons: musculoskeletal model of an insect leg. Proceedings of the annual meeting of the American Society of Biomechanics, Stanford University, 1995.

**Eckel CM**., Ahn AN. and Full R.J., 1993. Three-dimensional simulation of flexor musculo-apodeme function in insects. Am. Zool. 33(5):29A.

Earls K, Full RJ, Ahn AN, **Eckel CM.** and Weinstein RB, 1992. Effect on joint moments of varying muscle location using a 3-D, interactive musculo-skeletal model. Am. Zool. 32(5):51A.

**OTHER PROFESSIONAL EXPERIENCE**

 2017 **Tutor**: Varsity Tutors: AP Biology and 2-Semester Human Anatomy & Physiology

 2003 – pres. **Medical Photographer and Prosectionist** – Prepared and photographed all of the bone and cadaver images for *Human Anatomy* by McKinley/O’Loughlin, and *Human Anatomy & Physiology: An Integrated Approach*, published by McGraw-Hill Higher Education. In addition, my photographs are used extensively in the University of Utah gross anatomy digital dissector and in digital review and testing programs for medical students.

 2002-pres. **Textbook Author** – *Human Anatomy Laboratory Manual*, published by McGraw-Hill Higher Education. In addition to authoring the manual, I prepared and photographed the majority of the bone, cadaver, and animal specimens depicted in the book. Contributing author to Seeley et al’s *Human Anatomy & Physiology, 8th e*. Lead author of *Human Anatomy & Physiology Laboratory Manual: An Integrated Approach*.

 1998, 2001 **Dissectionist**: Prepared dissections of animal specimens for photographs used in *Human Anatomy and Physiology Laboratory Manual,5th and 6th ed*. by Elaine Marieb. Benjamin Cummings Publishing Company.

**REFERENCES**

Kurt H. Albertine, Ph.D. (kurt.albertine@hsc.utah.edu)

Elizabeth Ryan, EdD (ryaneli@iu.edu)

Valerie O’Loughlin, Ph.D. (vdean@indiana.edu)

**HOBBIES**

Photography: Landscape, Wildlife, Sports, Abstract Histology, and Biomedical: <http://www.christineeckelphotography.com/>, bicycling, jewelry making, writing, hiking