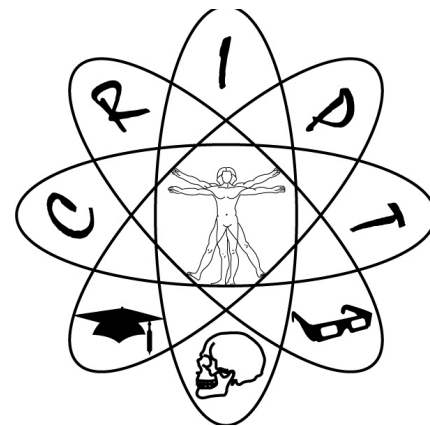


Timothy D. Wilson, PhD

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Academic Appointments

Associate Professor 2007-present tenured 2013	University of Western Ontario Schulich School of Medicine and Dentistry Department of Anatomy and Cell Biology
2008-present	Centre for Educational Research and Innovation Researcher
Assistant Professor 2005-2007	University of Western Ontario Faculty of Health Sciences

Education

Fellowship	University of Pittsburgh University of Pittsburgh Medical Center Otolaryngology and Neuroscience Pittsburgh, Pennsylvania 01/04-07/05 <i>Supervisor: Bill J. Yates, PhD</i>
Doctor of Philosophy	University of Western Ontario Neurovascular Research Laboratory Kinesiology. London, Ontario PhD ('04) <i>Supervisor: J. Kevin Shoemaker PhD</i>
Master of Science	University of Western Ontario Kinesiology, Centre for Activity and Ageing London, Ontario, MSc. ('99) <i>Supervisor: John M. Kowalchuk PhD</i>
Bachelor of Science	University of Waterloo Waterloo, Ontario Hons B.Sc. Kinesiology ('97) <i>Supervisor: Richard Hughson PhD</i>



Awards and Honours

Major

- 2012-13 Nominee for the American Association of Anatomy Basmajian Award for Young Scientist and Educator
- 2012 The Marilyn Robinson Teaching Award of Excellence (highest university award for junior faculty)
- 2006-07 The Bank of Nova Scotia, The UWO Alumni Association and the University Students' Council Award of Excellence in Undergraduate Teaching.
- 2006-07 The Faculty of Health Science Teaching Award of Excellence
- 2007-11 University of Western Ontario Student's Council (USC) Teaching Honour Roll Award of Excellence
- 2006-07 Nominee for *Ontario's Best Lecturer* (TV Ontario Sponsored)

Minor

- 2001 Dean's Award of Research Excellence, Western Research Forum
- 1999-00 Society of Graduate Students (SOGS) University Student Teaching Award of Excellence.
- 1999-00 Kinesiology Teaching Award, Top TA as deemed by Kinesiology student body.
- 1997-01 SOGS University Student Teaching Award of Excellence Nominee

Grants and Support

Funds Held

- 2011-12 Schulich School of Medicine and Dentistry Instructional Innovation and Development Fund (IIDF) Studentship Grant: *CNN: Cranial Nuclei and Nerve Digital Demonstrator*, **T.D. Wilson(PI)** S. deRibaupierre) (\$4500)
- 2011-12 Schulich School of Medicine and Dentistry Summer Research Training Programme *Development of a 3D Visual Workflow: From 3D videography to Student's Memory*. **T.D. Wilson(PI)** Manisha Mistry (Meds 2014) (4251\$)
- 2010-11 Schulich School of Medicine and Dentistry Instructional Innovation and Development Fund (IIDF) Faculty Grant: *3D Stroke Model*, S.deRibaupierre(PI) **T.D. Wilson** (\$3500)
- 2010-11 Schulich School of Medicine and Dentistry Instructional Innovation and Development Fund (IIDF) Studentship: *3D Stroke Model*, S.deRibaupierre(PI) **T.D. Wilson** (\$4804)
- 2010-11 Ministry of Training Colleges and Universities Funding for Clinical Educational Aids, Devices, and Materials Grant. *Incorporation of Clickers in the Dental Classroom*, **T.D. Wilson(PI)** (\$5470)
- 2010-11 Schulich Fellowship in Research Education: *Development of digital neurosurgical trainer for resident education*, **T.D. Wilson(PI)** S. deRibaupierre (\$5000)



- 2009-10 Schulich Research Opportunities Program (SROP) Award: *A 3-dimensional stereoscopic model for teaching cranial nerve anatomy: development and evaluation*, **T.D. Wilson(PI)**, Kevin Fung, Jeffery Yeung (Meds 2011) (\$4750)
- 2008-09 Instructional Innovation and Development Fund Studentship Award. *3D Virtual Training of Neurosurgical Procedures - Epilepsy Surgical Training*, S. deRibaupierre(PI), **T.D. Wilson** (\$4804)
- 2008-09 Teaching Support Centre Small Grant on Teaching, *Virtual anatomy lab in students hands: Is it the same as the gross lab experience?* **T.D. Wilson (PI)**, R. Hopkins (\$2475)
- 2008-09 Teaching Support Centre Small Grant on Teaching: *Introduction of a novel teaching paradigm for head and neck anatomy*. K. Fung(PI), **T.D. Wilson**, P. Haase, M. Johnson, (\$2500)
- 2007-08 Instructional Innovation and Development Fund Studentship Grant: *Do Students Prefer Stereoscopic Lectures?* **T.D. Wilson(PI)**, A. Clausner (\$1750)
- 2007-08 Instructional Innovation and Development Fund Studentship Grant: *Development of Three Dimensional Larynx*, **T.D. Wilson(Co-PI)** with A. Hu, K. Fung (\$2500)
- 2006-07 Instructional Innovation and Development Fund Studentship Grant: *3D Reconstruction of the Human Body from MRI Scans*, **T.D. Wilson(Co-PI)** M. Johnson, (\$2450)
- 2005 American Heart Association Post-Doctoral Fellowship Award: *The Vestibuloautonomic Control of Systemic Blood Flow*, **T.D. Wilson** (\$115 000 US\$ 3 years, declined)
- 2001-04 Heart and Stroke Doctoral Research Scholarship, Focus on Stroke Award: *The Sympathetic Nervous System and Cerebral Blood Flow*, **T.D. Wilson** (20 000\$ /yr for 4yrs)
- 1998-01 Ontario Graduate Scholarship in Science and Technology (OGSST)

Applications Under Review

- 2013 AMOSO Innovation Fund - Determining best practices in E-Learning Formation and Deployment in Undergraduate Medical Training: Examination of the User October 2013

Not Awarded

- 2013 Social Sciences and Humanities Research Council - Insight Grant Understanding Where and How to Look at Instructional Images, **Wilson, T.D.** (\$74 832) Submitted January 2013
- 2012 Academic Development Fund Major - *Exploring Learner Gaze and Cortical Behaviour During Visual E-learning*, **Wilson T.D.**, (\$136 545) Submitted November 15, 2012.



NSERC Discovery Grant - *Exploring physiological substrates of learner spatial ability during demanding visual learning tasks.* **Wilson T.D.** (\$226 280) Submitted November 2012.

Ontario Simulation Network - Sim-One Grant, *Learning How to Look*, Wilson T.D. (25 000) Submitted November 30, 2012.

National Center for Simulation in Rehabilitation Research Pilot Project Program, *Development and validation of a three-dimensional trans-tibial musculoskeletal model to examine the causes of fibular abduction.* Dunning C.E.(PI), Burkhart, T.A., Payne, M.C.W., **Wilson, TD** (\$25 164) Submitted Aug 31st.

Social Sciences and Humanities Research Council (SSHRC) - *Exploration of Interdisciplinary Graduate Supervision and Practices*, K.Hibbert (PI), L. Lingard, M. Vanstone, A. Kinsella, P. McKenzie, A. Pitman, **T.D. Wilson** (\$72 702.23)

Faculty Support for Research in Education (FSRE) - *3D Laparoscopy: Evaluating a New Frontier in Surgical Visualization*, **T.D. Wilson(PI)** co-applicants Marie-Eve Lebel MD, Victoria Roach (PhD Student), Manisha Mistry (Schulich Summer Research and Training Student) (\$6887)

Instruction Innovation and Development Fund (IIDF) Studentship Grant Application: *Observe and Document Individual Learning Group in Gross Anatomy Learning Lab.* **T.D. Wilson(PI)** (\$7066)

2011 PetroCanada Young Investigator Award **T.D. Wilson (co-PI)**, S. deRibaupierre, Evaluation of stereoscopic 3D models in neurosurgery training, (\$12 000)

2009 Academic Development Fund (ADF) *More than meets the Eye: Team Learning in the Gross Anatomy Laboratory*, **T.D. Wilson (PI)**, L. Lingard, K. Hibbert. (\$27658.29)

2008 Instruction Innovation and Development Fund (IIDF) Faculty Grant Application: *3D Virtual Training of Neurosurgical Procedures - Epilepsy Surgical Training*, S. deRibaupierre (PI) **T.D. Wilson** (\$4850)

Faculty support for Research in Education Grant - *Creation and Study of Anatomical Tutorials through Dispersed Learning in Virtual Environments.* **T.D. Wilson (PI)** (\$12 500)

2007 Fellowship in Teaching Innovation Award - Development and Validation of a 3-Dimensional Educational Computer Model of the Larynx, K.Fung(PI), H.Ladek, **T.D. Wilson** (\$10 000)



I. Research and Scientific Contributions

* indicates student supervision

Peer Reviewed Publications/ In Press

29. *Rebecca PR Tompkins, Jamie Melling, **Timothy D. Wilson**, Brent D. Bates, J. Kevin Shoemaker, Arrangement of sympathetic fibers within the human common peroneal nerve: Implications for microneurography. Accepted *Journal of Applied Physiology*, (09/2013)
 - graduate student co-supervision

28. *Nguyen, N., Mulla, A., Nelson, A, **Wilson, T.D.**, Visuospatial anatomy comprehension: The role of spatial visualization ability and problem solving strategies. Accepted *Anatomical Sciences Education* (09/2013)
 - graduate student co-supervision

27. *Roach, V.A., *Mistry, M. **Wilson, T.D.**, Spatial Visualization Ability and Laparoscopic Skills in Novice Learners: Evaluating Stereoscopic vs. Monoscopic Visualizations, Accepted *Anatomical Sciences Education* (08/2013)
 - graduate student supervision

26. *Mistry, M., *Roach, V.A., **Wilson, T.D.**, Application of stereoscopic visualization on surgical skill acquisition in novices. *Journal of Surgical Education*, 70(5) 563-70, 2013.
 - medical student supervision

25. *Martin,C.M., *Roach,V.A., *Nguyen, N., Rice, C.L., **Wilson, T.D.**, Comparison of 3D Reconstructive Technologies Used for Morphometric Research and the Translation of Knowledge Using a Decision Matrix, *Anatomical Sciences Education*, doi:10.1002/ ase.1367
 - graduate student co-supervision, 60% contribution

24. *Massey, N.D., Galil, K.A., **Wilson, T.D.**, Determining Position of the Inferior Alveolar Nerve via Anatomical Dissection and Micro-Computed Tomography in Preparation for Dental Implants, *Journal of the Canadian Dental Association*, 79:d39, 2013, <http://www.jcda.ca/uploads/d39/d39.pdf>
 - graduate student co-supervision, 60% contribution

23. *Pedersen, K. **Wilson, T.D.**, de Ribaupierre, S. An Interactive Program to Conceptualize the Anatomy of the Internal Brainstem in 3D. *Studies in Health Technology and Informatics*. Vol. 184, 319-323, 2013.
 - graduate student co-supervision, 60% contribution

22. *Yeung, J., Fung, K., **Wilson, T.D.** Prospective Evaluation of a Web-Based 3-Dimensional Cranial Nerve Simulation. *Journal of Otolaryngology Head and Neck Surgery*, July 2012. <http://www.ncbi.nlm.nih.gov/pubmed/23700589>



- medical student co-supervision, 50% contribution
 - 2nd manuscript from the SRTP awarded above to student and my lab.
21. de Ribaupierre, S. **Wilson, T.D.**, Construction of a 3-D anatomical model for teaching temporal lobectomy. *Computers in Biology and Medicine*. 42(6): 692-6. 2012.
 - surgical simulation manuscript 50% contribution during co-supervision
 20. *Brewer, D., **Wilson, T.D.**, Eagleson, R., de Ribaupierre, S., Teaching Neuroanatomy using a 3D VR Model. *Studies in Health Technology and Informatics*,173: 85-91, 2012.
 - undergraduate student supervision, 50% contribution
 19. *Monsour, M., Ivanova, T.D., **Wilson, T.D.**, Garland, S.J. Influence of vestibular afferent input on common modulation of human soleus motor units during standing. *Motor Control*, 16(4): 466-79, 2012.
 - 30% contribution to graduate student advisory committee in physiotherapy
 18. *Roach, V., Brandt, M.G., Moore, C.C., **Wilson, T.D.**, 3-D Videography: The Cutting Edge of Surgical Skill Acquisition. *Anatomical Sciences Education*, 5(3):138-45, 2012
 - graduate student supervision, 50% effort
 17. *Nguyen, N., Nelson, A., **Wilson T.D.**, Computer Visualizations: Factors that Influence Spatial Anatomy Comprehension. *Anatomical Sciences Education*, 5(2):98-108, 2012.
 - doctoral student supervision, 50% contribution
 16. *Hopkins, R., Regehr, G., **Wilson, T.D.**, Exploring the changing learning environment of the gross anatomy lab, *Academic Medicine*, 86(7):883-8. 2011
 - graduate student supervision, 50% contribution
 15. *Adams, C. **Wilson, T.D.**, Virtual Cerebral Ventricular System: An MR-based Three-Dimensional Computer Model, *Anatomical Sciences Education*, 4(6):340-7, 2011
 - graduate student supervision, 50% contribution
 14. *Yeung, J., Fung, K. **Wilson, TD.**, Development of a Computer-Assisted Cranial Nerve Simulation from the Visible Human Dataset. *Anatomical Sciences Education*,(2):92-7, 2011.
 - medical student supervision SRTP, 50% contribution.
 13. *Sergovich, A., Johnson, M., **Wilson, T.D.**, Explorable three-dimensional digital model of the female pelvis, pelvic contents, and perineum for anatomical education. *Anatomical Sciences Education*.;3(3):127-33, 2010
 - graduate student co-supervised, 30% contribution



12. Hu, A., **Wilson T.D.**, Ladak, H., Doyle, P., Fung, K Evaluation of a three-dimensional educational computer model of the larynx: voicing a new direction. *Journal of Otolaryngology Head Neck Surgery*, 39(3):315-22, 2010.
 - co-supervision of this ENT resident, 40% contribution
11. Chen, J.K., Glicksman, J.T., Haase, P., Johnson, M., **Wilson, T.D.**, Fung, K., Introduction of a Novel Teaching Paradigm for Head and Neck Anatomy, *Journal of Otolaryngology-Head & Neck Surgery*, 39(4), 349-55. 2010.
 - arms length supervisor of this ENT resident, 10% contribution
10. *Nguyen, N., **Wilson, T.D.**, A Head in Virtual Anatomy: Development of a Stereoscopic 3D Head and Neck Model, *Anatomical Sciences Education*, 2(6): 294-301, 2009.
 - graduate student supervision, 50% contribution
9. Hu, A., **Wilson, T.D.**, Ladak, H., Doyle, P., Fung, K., Development of a Three-Dimensional Educational Computer Model of the Larynx: Voicing a New Direction, *Archives of Otolaryngology – Head and Neck Surgery*, 135(7):677-81, 2009.
 - co-supervision of this ENT resident, 40% contribution
8. Yavorcik, K.J., Reighard, D.A., Misra, S.P., Cotter, L.A., Cass, S.P., **Wilson, T.D.**, and Yates, B.J. Effects of postural changes and removal of vestibular inputs on blood flow to and from the hindlimb of conscious felines. *American Journal of Physiology (AJP): Regulatory, Integrative and Comparative Physiology*. 297: R1777–R1784, 2009
 - post-doctoral research completion, 20% contribution
7. Lee, T.-K., Lois, J.H., Troupe, J.H., **Wilson, T.D.**, and Yates, B.J., Transneuronal Tracing of Neural Pathways that Regulate Hindlimb Muscle Blood Flow, *AJP: Regulatory, Integrative and Comparative Physiology*, 292:R1532-R1541, 2007
 - post-doctoral research completion, 20% contribution
6. **Wilson, T.D.**, Cotter, L.A., Draper, J.A., Misra, S.P., Rice, C.D., Cass, S.P., Yates. B. J., Vestibular inputs elicit patterned changes in limb blood flow in conscious cats. *Journal of Physiology*, 575.2 (2006) pp 671-684.
 - post-doctoral research, 70% contribution
5. **Wilson, T.D.**, Cotter, L.A., Draper, J.A., Misra, S.P., Rice, C.D., Cass, S.P., Yates. B.J., Effects of Postural Changes and Removal of Vestibular Inputs on Blood Flow to the Head of Conscious Felines. *Journal of Applied Physiology*, 100: 1475–1482, 2006.
 - post-doctoral research, 70% contribution
4. **Wilson, T.D.**, Shoemaker JK, Kozak R, Lee TY, Gelb AW. Reflex-Mediated Reduction in Human Cerebral Blood Volume, *Journal of Cerebral Blood Flow and Metabolism*, 25(1):136-43, 2005.
 - doctoral research, 100% contribution



3. Kimmerly, D.K. Tutungi, E., **Wilson, T.D.**, Gelb, A.W. Serrador, J.M. Hughson, R.L. Shoemaker, J.K. Circulating Norepinephrine and Cerebrovascular Control in Conscious Humans, *Journal of Clinical Physiology and Functional Imaging*, 23(6), 314-319, 2003.
 - doctoral research, 50% contribution
2. **Wilson, T.D.**, Serrador, J.M., Shoemaker, J.K. Head position modifies cerebrovascular response to orthostatic stress, *Brain Research*, 961(2), 261-268, 2003
 - doctoral research, 100% contribution
1. **Wilson, T.D.** Skeletal Muscle in Microgravity, *The Western Journal of Graduate Research*, 7(1), 27-35, 1998.
 - graduate independent study research, 100% contribution

Books and Chapters

2. Yates, B.J., Kerman, I.A., Jian, B.J., and **Wilson, T.D.** *The vestibulo-autonomic system*. IN: Vertigo and Imbalance, Oxford Textbook in Clinical Neurology, edited by A. Bronstein. Oxford University Press, Oxford, 2013, pp. 49-62.
1. Yates, B.J. and **Wilson, T.D.** *Vestibulo-autonomic responses*. Encyclopedia of Neuroscience, Vol. 10, edited by L. R. Squire. Academic Press, Oxford, 2009, 133-138.

Manuscripts or Chapters Currently Under Peer-Review

1. *The Use of Images and Cognitive Load in Anatomical Instruction*, IN Teaching Anatomy - A Practical Guide, Edited by. Lap Ki Chan and Wojciech Pawlina
2. *Martin, C.M., *Turgeon, J., Rice, C.L., Goela, A., Wilson, T.D. Three-Dimensional Measurement Approach for the Morphology of the Proximal Femur. *Journal of Anatomy*, (under review 07/2013)

Non-Peer Reviewed Articles

1. Atkinson, A., **Wilson, T.D.**, Kidd, J., Virtual Education: Teaching and Learning in Second Life, *Society of Teaching and Learning in Higher Education Newsletter*, Fall Issue (50), 2008.
 - 40% contribution

Abstracts:

- * graduate student supervision
- * * undergraduate supervision

87. **Wilson, T.D.**, The effects of image on learning and vice versa. American Association of Anatomy (AAA) 2013, Boston, MA. (**invited platform presentation**)



86. *Roach, V., Mistry, M. **Wilson, T.D.**, Stereo Laparoscopy: A Novel Approach to Resident Surgical Education, AAA 2013, Boston MA. (**platform presentation educational award nominee**)
85. *Loftus, J., **Wilson, T.D.** Spatial ability and cognitive load demands during visual learning and testing: A transcranial Doppler ultrasound study. AAA 2013, Boston MA.
84. **Mistry, M., Roach, V., **Wilson, T.D.**, Application of stereoscopic visualization on surgical skill acquisition in novices, AAA 2013, Boston MA. (**platform presentation educational award nominee**)
83. *Asa, B., Burkhart, T., Payne, M., **Wilson, T.D.**, In vitro biomechanical evaluation of fibular movement in below knee amputations, AAA 2013, Boston MA.
82. *Van Nuland, S. Roach, V. **Wilson, T.D.**, Belliveau, D. Head to Head: The Role of Competition in Undergraduate Education, AAA 2013, Boston MA. (**platform presentation educational award nominee**)
81. *Holterman Ten Hove, S. **Wilson, T.D.**, Ghalil, K. Temporomandibular joint articular disc: Providing a structural scaffold for use in tissue bioengineering of replacement constructs, AAA 2013, Boston MA.
80. *Roth, J. **Wilson, T.D.**, Sandig, M. Development of a virtual 3D renal corpuscle for educational environments, AAA 2013, Boston MA.
79. *Martin, C., Roach, V. Nguyen, N. Rice, C. **Wilson, T.D.** Comparison of 3D Reconstructive Technologies used for Morphometric Research and the Translation of Knowledge using a Decision Matrix. AAA 2013, Boston MA.
78. *Brewer, D.N. & Wilson, T.D. The Power of People and Projection, Technology in Education Symposium, March 8th, 2013, London, ON.
77. Tan, S. Hu, A. **Wilson, T.**, Ladak, H. Haase, P., Fung, K. Role of computer generated 3D-visualization in laryngeal anatomy teaching for advanced learners. *Canadian Conference on Medical Education*, May 2012, Banff, Alberta.
76. *Roach, V.A., Mistry, M., LeBel, M.E., **Wilson, T.D.**, 3-D Arthroscopy: A New Frontier in Surgical Visualization, *American Association of Anatomists (AAA)* poster presentation, April 2012, San Diego CA.
75. *Martin, C., Rice, C., Goella, A., **Wilson, T.D.**, Three dimensional orthopaedic morphometry of the femoral head of healthy individuals. *American Association of Anatomists (AAA)* poster presentation, April 2012, San Diego CA.
74. *Nguyen, N., Nelson, A., **Wilson, T.D.** Problem solving strategies and the relationship between visualization ability and spatial anatomy task performance. *American Association of Anatomists (AAA)* platform and poster presentation, April 2012, San Diego CA. (**platform presentation educational award nominee**)
73. *Kim, H. Johnson, M., **Wilson, T.D.**, The novel 'syncretion' approach to learning gross anatomy with clay models: Is it a plausible alternative for learning the muscles in the anterior forearm? *American Association of Anatomists (AAA)* poster presentation, April 2012, San Diego CA.
72. *Turgeon, J.G., Armstrong, K. **Wilson, T.D.**, User experience and the influence on the evaluation of information presentation in an online learning module. *American Association of Anatomists (AAA)* poster presentation, April 2012, San Diego CA.



71. *Pedersen, K.L., deRibaupierre, S., **Wilson, T.D.**, An Interactive 3D Model of the Cranial Nerve and Brainstem Nuclei for Enhanced Learning of Neuroanatomy. *American Association of Anatomists (AAA)* poster presentation, April 2012, San Diego CA.
70. *Allen, L.K., Bhattacharyya, S., **Wilson, T.D.**, More than Meets the Eye: An Interactive 3D Model of the Eye for Enhanced Learning of the Oculomotor System. *American Association of Anatomists (AAA)* poster presentation, April 2012, San Diego CA.
69. *Kour, L., Cassidy, E., Roth, J. **Wilson, T.D.**, No 'I' in Anatomy: Group Cadaveric Dissection. *American Association of Anatomists (AAA)* platform presentation, April 2012, San Diego CA.
68. Vanstone, M., Hibbert, K., Pitman, A, Kinsella, A.E., McKenzie, P., **Wilson, T.D.**, Lingard, L. (2012) The Quest for Effective Interdisciplinary Graduate Supervision: Considerations for current students and future supervisors. Panel Presentation on Mentorship in Practice: Ensuring a Collaborative and Inspiring Partnership, *The Canadian Committee of Graduate Students in Education (CCGSE)*, Canadian Society for Studies in Education (CSSE), Waterloo, ON May 27-30, 2012
67. Hibbert, K., Lingard, L. Vanstone, M., Kinsella, A.E. McKenzie, P. Pitman, A. & **Wilson, T.D.** (2012). The Quest for Effective Interdisciplinary Graduate Supervision: A critical narrative analysis. Presented at the *Education Research Day*, London, ON.
66. Hibbert, K.; Lingard, L., Kinsella, A. E.; McKenzie, P.; Pitman, A.; Vanstone, M.; **Wilson, T.D.**, Interdisciplinary Supervision and Professional Practice, *Education and Learning. Professions and Professional Learning in Troubling Times: Emerging Practices and Transgressive Knowledges Conference* May 9-11, 2012, at the University of Stirling, UK.
65. de Ribaupierre, S, **Brewer, D, Eagleson, R, and Wilson, T (2011) "The role of spatial abilities in learning neurosurgical procedures". The International Symposium on Pediatric Neurosurgery, Goa, India, Oct 16-20.
64. *Nguyen, N., Nelson, A., **Wilson, T.D.** Computer Visualizations: Factors that Influence Spatial Anatomy Comprehension, *Society for Neuroscience (SfN)*, Washington D.C. November 2011.
63. *Tompkins, R. Melling, J. Shoemaker, J.K., **Wilson, T.D.** An immunohistochemical study on the arrangement of sympathetic fibers within the human common fibular nerve. *International Society of Autonomic Neuroscience*, September 2011, Buzios, Brasil.
62. Lingard, L., Hibbert, K., Pitman, A., Kinsella, A.E., McKenzie, P., Vanstone, M. Masinire, A., **Wilson, T.D.** Identifying strengths and challenges in interdisciplinary graduate supervision. Poster session, *Canadian Association for Information Science*, Fredericton, N.B. June 2011
61. *Palombella, A. Ghalil, K, **Wilson, T.D.**, A 3-dimensional morphology of the mandibular condyle in elderly patients using micro-CT: Implications in clinical dentistry. *American Association of Anatomy (AAA)*, Washington D.C. April 2011.
60. *Israel, E. A. Ghalil, K, **Wilson, T.D.**, An anatomical study of the alveolar process in the human maxilla and its relation to the maxillary sinus using μ -CT: to facilitate successful dental implants. (AAA), Washington D.C. 2011.



59. *Roach V. **Wilson, T.D.** The Development and Evaluation of 3D Videography as a Surgical Training Tool. (AAA), Washington D.C. April 2011.
58. *Raynor, C., **Wilson, T.D.** 3D Surface and Volumetric Analysis of Hip Morphometrics, (AAA), Washington D.C. April 2011.
57. *Tompkins, R. Melling, J. Shoemaker, J.K., **Wilson, T.D.**, An immunohistochemical study on the arrangement of sympathetic fibers within the human common fibular nerve. (AAA), Washington D.C. April 2011.
56. *Jun, A. **Wilson, T.D.**, Applying principles from the cognitive theory of multimedia learning to an existing online instructional tool of the cranial nerves. (AAA), Washington D.C. April 2011. (**platform presentation award nominee**)
55. **Brewer, D. **Wilson, T.D.**, Use of a Digital 3D Brain Model as an Intermediate Step in Learning Spatial Anatomy. (AAA), Washington D.C. April 2011.
54. *Devlin, M. **Wilson, T.D.**, Interdisciplinary Media Study of Anatomical Education via Virtual Worlds. (AAA), Washington D.C. April 2011.
53. de Ribaupierre, S., **Wilson, T.D.** Development of a New Teaching Tool for Residents: Stereoscopic 3D Model of a Surgical Procedure. Oral presentation at the 38th Annual Meeting of the *International Society for Pediatric Neurosurgery*, Jeju, Korea, November 2010
52. de Ribaupierre, S., Eagleson, R., **Brewer, D., **Wilson, T.D.** Ubiquitous Learning for Neuroanatomy, Presented (oral presentation) at the *Ubiquitous Learning International Conference 2010*, Vancouver, December 12th 2010
51. de Ribaupierre S., **Wilson T.D.** Development of a new teaching tool for residents: stereoscopic 3D model of a surgical procedure. *Child's Nervous System* (2010) 26: 1459
50. *Roach V., **Wilson, T.D.**, Design and Implementation of a 3D Videographical Interface for Surgical Training, *Centre for Educational Research and Innovation, 2nd Annual Research Symposium*, Oct 2010, London, Ontario
49. *Loftus, J., Nguyen, N., **Wilson T.D.**, Cognitive Load Theory: What's Missing? *Centre for Educational Research and Innovation, 2nd Annual Research Symposium*, Oct 2010, London, Ontario
48. *Jun, A., **Wilson, T.D.**, Applying principles of cognitive theory of multimedia learning to an online instructional tool of the cranial nerves. *Centre for Educational Research and Innovation, 2nd Annual Research Symposium*, Oct 2010, London, Ontario
47. *Palombella, A. Ghalil, K. **Wilson, T.D.**, A micro-CT study of the temporomandibular joint: a view for dental surgery, *Faculty of Dentistry Research Day*, Oct 2010, London, Ontario.
46. *Isreal, E., Ghalil, K., **Wilson, T.D.**, A micro-CT study of the maxilla: a view for dental implants. *Faculty of Dentistry Research Day*, Oct 2010, London, Ontario.
45. Tan, S. Hu, A. **Wilson, T.D.**, Haase, P., Fung, K. Role of computer generated 3D-visualization in laryngeal anatomy teaching for advanced learners: A prospective randomized study Presented at: *American Academy of Otolaryngology-Head and Neck Surgery Foundation - Annual Meeting 2010*; Sept 26-29; Boston MA.
44. **Wilson, T.D.**, Modern Anatomical Models in Classical Situations, *Canadian Conference of Medical Education, (CCME)* April 1-4, St. John's Newfoundland, 2010.



43. *Hopkins, R.M., Regher, G. & **Wilson, T.D.**, Taking a Bite out of the Lab Book: Stereoscopy in the Laboratory. *Canadian Conference of Medical Education, (CCME)* April 1-4, St. John's Newfoundland, 2010.
42. *Bhattacharyya, S., **Wilson, T.D.**, Johnson, M., 3D-X: Development of a Web-based Cross-sectional Anatomy Learning Tool based on the Visible Human Male. *Canadian Conference of Medical Education, (CCME)* April 1-4, St. John's Newfoundland, 2010.
41. *Dorosh, K., Bhattacharyya, S., Johnson, M., **Wilson, T.D.**, Haase, P., Effectiveness of a web-based cross-sectional anatomy learning tool (3D-X) at improving students' ability to interpret CT Images. *Canadian Conference of Medical Education, (CCME)* April 1-4, St. John's Newfoundland, 2010.
40. *Massey, N.D., Galil, K.A.A., **Wilson, T.D.**, Determination of inferior alveolar nerve position via anatomical dissection and micro-CT: A view towards dental implants, *American Association of Anatomists (AAA) FASEB*, 2010, Anaheim
39. *Bhattacharyya, S., **Wilson, T.D.**, Johnson, M., 3D-X: Development of a Web-based Cross-sectional Anatomy Learning Tool based on the Visible Human Male, (AAA) FASEB, 2010, Anaheim
38. *Dorosh, K., Bhattacharyya, S., Johnson, M., **Wilson, T.D.**, Haase, P., Effectiveness of a web-based cross-sectional anatomy learning tool (3DX) at improving students' ability to interpret CT Images. (AAA) 2010, Anaheim.
37. *Hopkins, R.M., & **Wilson, T.D.**, Taking a Bite out of the Lab Book: Stereoscopy in the Laboratory. *Society for Teaching and Learning in Higher Education (STLHE)*; Fredericton, New Brunswick, 2009. (graduate poster competition finalist)
36. **Ding, Y., **Wilson T.D.** Online Anatomical Education in the Digital Age of the 21st Century: Borderless Electronic Anatomical Labs. *Interacting with Immersive Worlds Conference (IWIW)*; Brock University, St. Catherines, 2009.
35. **Ding, Y., **Wilson T.D.**, Teaching and Learning anatomy interactively online in the new digital age of 21st century, (AAA) 2009, New Orleans
34. *Lew, C., **Wilson, T.D.**, Reconstruction of the Cerebral Ventricular System in Stereoscopy, (AAA) 2009, New Orleans.
33. *Yim, H., **Wilson, T.D.**, Akai, B. Development of a 4-dimensional model of the human heart with detection of suspected heart pathology. (AAA) 2009, New Orleans.
32. *Midgley, M., **Wilson, T.D.**, Advanced multimedia applications for teaching anatomy: a comparison of software used to generate 3D anatomical models. (AAA) 2009, New Orleans
31. *Hopkins, R.M., **Wilson, T.D.**, Taking a Bite out of the Lab Book: Stereoscopic Laboratory Models in Student's Hands. (AAA) 2009, New Orleans.
30. *Sergovich, A., Johnson, M., **Wilson, T.D.**, Development of 3D Stereoscopic Female Pelvis for Gross Anatomical Education. (AAA) 2009, New Orleans.
29. *Stock, T., **Wilson, T.D.**, Postivit, L., Co-localization of nodal in hypoxic regions of tumours as seen using confocal microscopy and stereoscopic 3D reconstruction methods. (AAA) 2009, New Orleans.
28. *Nguyen, N., Nelson, A., **Wilson, T.D.**, Determining optimal learning conditions for acquiring spatial 3D information using computer-based anatomical reconstructions. (AAA) 2009, New Orleans.



27. Misra, S.P., Yavorcik, K.J., Erwin, M., Cotter, L.A., Reighard, D.A., **Wilson, T.D.**, Yates, B.J., Effects of postural changes on blood flow to and from the dependent limbs of conscious cats. *American Physiological Association (APS) 2009*, New Orleans.
26. Yavorcik, K.J., Erwin, M., Misra, S.P. Cotter, L.A., Reighard, D.A., **Wilson, T.D.**, Cass, S.P., Yates, B.J. Vestibular effects on relative arterial blood flow to and venous return from the limbs during postural changes of conscious felines, (*APS*) 2009, New Orleans. ** (**nominee for graduate student poster competition**)
25. Nelson, A.J., Holowka, S., Allan, G., Castle, M., Chhem, R., Cunningham, I., Ewanchyna, M., Friedman, S., Garvin, G., Gibson, G., Granton, P., Kogon, S., Longstaffe, F., Lywood, V., *Nguyen, N., Romanagnoli, C., Shaw, R., Trumpour, M., Wade, A.D., White, C.D., **Wilson, T.D.**, (2008). The ROM Mummy Project – 30+ years of progress. Poster presented to the *36th Annual Meeting of the Canadian Association for Physical Anthropologists*, Hamilton, ON, , 2008.
24. Hu, A. **Wilson, T.D.**, Ladak, H., Haase, P., Fung, K. Three-Dimensional Educational Computer Model of the Larynx: Voicing a New Direction, *American Head and Neck Society Annual Meeting*, San Francisco, July, 2008.
23. *Clausner, A.B., **Wilson, T.D.** Potential Role of Stereographic Lectures in Anatomical Education, (*Society for Teaching and Learning in Higher Education*) Windsor, June 2008. (**nominee graduate student poster competition**)
22. **Wilson, T.D.**, Kidd, J., Atkinson, M. Possibilities of Studying the role of Teaching and Learning in Virtual Worlds. (*STLHE*) *The Society for Teaching and Learning in Higher Education*, Windsor, 2008.
21. *Clausner, A., **Wilson, T.D.** Do students prefer stereoscopic lectures? Oral presentation at the *American Association of Anatomists (AAA) 2008* San Diego.
--> **nominee for Langman Award for Graduate Students***<--
20. *Nguyen, N. and **Wilson, T.D.**, Preparation of stereoscopic head and neck model for educational purposes. Oral presentation (*AAA*) 2008, San Diego California.
19. *Boeckner, J., **Wilson, T.D.**, Stereoscopic Heart and Thorax for medical education. Oral presentation at (*AAA*) 2008, San Diego California.
18. **Ding, Y., **Wilson, T.D.**, The next Dimension of Anatomarium: Anatomical possibilities through online virtual environments. Poster at presentation *AAA* 2008, San Diego California.
17. **Wilson, T.D.**, **Ding, Y., **Vandenbogaard, A.M., **Greven, N., Haase, P., Johnson. M. Anatomarium: A Stereoscopic Three-dimensional Laboratory Experience, *American Association of Anatomists. AAA* 2007.
16. *Deller, M., McAuliffe, J., Johnson, M., Weaver, B. **Wilson, T.D.**, The Role of Simulated Motion on Visual Attention, *Vision Science Society (VSS)*, 2006
15. **Wilson, T.D.**, Cotter, L.A. Sabol, R.J., Misra, S.P., Rice, C.D., Cass, S.P., Yates, B.J., Consequences of Removal of Vestibular Inputs on Patterning of Blood Flow to the Limbs during Postural Alterations in Conscious Felines. ** Poster and Selected Oral Presentation at Symposia, *American Physiological Society (APS)* 2006.
14. **Wilson, T.D.**, Cotter, L.A. Sabol, R.J., Misra, S.P., Rice, C.D., Cass, S.P., Yates, B.J., Effects of Postural Changes and Removal of Vestibular Inputs on Carotid Blood Flow in Conscious Felines, Oral Presentation *Society for Neuroscience* 2006.
13. **Wilson, T.D.**, Yates, B.J., Regional blood flow alterations during natural vestibular stimulation in conscious felines, Poster Presentation *FASEB* 2005



12. Lee, T.Y., Kozak, R., **Wilson, T.D.**, Gelb, A., Shoemaker, J.K., Investigation by CT Perfusion of the sympathetic control of cerebral hemodynamics. *Radiological Society of North America, RSNA 2003*
11. **Wilson, T.D.**, Kozak, R., Lee, T.Y., Gelb, A.W., Shoemaker, J.K., Regional Cerebrovascular Responses to Sympathoexcitation: A Computed Tomography Study. *International Society of Cerebral Blood Flow and Metabolism, Brain 2003*
10. **Wilson, T.D.**, **Garnett, C., Shoemaker, J.K., The effects of exogenous CO₂ on cerebrovascular tone during simultaneous head up tilt and lower body negative pressure to presyncope. *FASEB 17(5) pg A873, 2003* .
9. Serrador, J.M., Wood, S.J., **Wilson, T.D.**, Schlegel, T.T., Role of vestibular system in cerebrovascular response to parabolic flight., 6th Symposium on The Role of Vestibular Organs in the Exploration of Space. *Journal of Vestibular Research, 11(3-5) 2001-2002*
8. **Wilson, T.D.**, **Mullin, P.T., Hughson, R.L., Shoemaker, J.K., Rapid Tilt For Assessment of Cerebral Blood Flow Autoregulation, *Medicine and Science in Sports and Exercise, 33(5), American College of Sports Medicine (ACSM) 2001*.
7. Tutungi, E., **Wilson, T.D.**, Serrador, J.M. Tulppo, M., Gelb, A.W., Shoemaker, J.K., Effects of Noradrenaline and Phentolamine on Cerebral Vasculature in Conscious, Healthy Individuals. *Anaesthesia and Intensive Care, 29(1), 2001*
6. **Wilson, T.D.**, Serrador, J.M., Shoemaker, J.K., Cerebral Blood Flow During Head Down Neck Flexion. *Physiologist, 43(4), 285, 2000*.
5. **Wilson, T.D.**, Paterson, D.H., Kowalchuk, J.M. Dissociation of Cardiac Output and Oxygen Uptake in Older Adults. *Medicine and Science in Sports and Exercise, 32(5), American College of Sports Medicine (ACSM) 2000*.
4. Kowalchuk, J.M., Scheuermann, B.W., Bell, C., **Wilson, T.D.**, Paterson, D.H., Cunningham D.A., O₂ uptake kinetics following the start of moderate intensity exercise are speeded by a prior bout of heavy intensity exercise in old, but not young, adults, *Experimental Physiology Proceedings, 515P 76P, 1999*.
3. **Wilson, T.D.**, Bell, C., Moy, A.P., Kowalchuk, J.M., Cunningham, D.A., Paterson, D.H. Effect of distal arterial occlusion on proximal muscle O₂ and mean blood velocity, *Medicine and Science in Sports and Exercise, 31(5), S334(1686), American College of Sports Medicine (ACSM) 1999*.
2. Serrador, J.M., **Wilson, T.D.**, Powell, A.C., Bondar, R.L., Kowalchuk, J.M., Submaximal dynamic exercise does not impair cerebral autoregulation, *Medicine and Science in Sports and Exercise, 31(5), S194(875), ACSM 1999*.
1. Serrador, J.M., **Wilson T.D.**, Irving S., Picot, P.A., Kowalchuk, J.M., Bondar R.L., Cerebral blood flow changes during a ramped exercise to exhaustion, *Medicine and Science in Sports and Exercise, 30(5), S104(588), American College of Sports Medicine (ACSM) 1998*.



II. Teaching

Student Evaluations

Lifetime Effectiveness Rating: 6.3±0.4 / 91%

Course Title / Number	Class Size	Mandatory (M), Elective (E), Graduate (G) Undergraduate (U/G) Professional (P)	Contact Hrs. Lecture/Lab (# teaching Assistants)	Overall Effectiveness Rating (7 point scale / % effectiveness)
2012-13 ACB 2221 (Kin) PT 9501 OT 9528				
2012-13 Dentistry 5160 Systemic Anatomy				
2012-13 Dentistry 5185 Core Biology				
2012 -13 ACB 9566 Professionalism				
2011-12 ACB 2221 (Kin) PT 9501 OT 9528	66 51 57	UGM GM GM	28/42 28 28 (4TA, 3 volunteers)	6.6±0.6 / 94% 6.4±0.7 / 92% 6.3±0.7 / 90%
2011-12 Dentistry 5160 Systemic Anatomy	56	PM	11/5 (3 TA)	6.4±0.7 / 92%
2011-12 Dentistry 5185 Core Biology	56	PM	7/5 (3 TA)	6.3±1 / 90%
2011 -12 ACB 9566 Professionalism	9	GM	50	5.6±1.1 / 80%
2010-11 Dentistry 5160 Systemic Anatomy	56	PM	11/5 (3 TA)	6.7±0.8 / 96%
2010-11 Dentistry 5185 Core Biology	56	PM	7/5 (3 TA)	6.3±1.2 / 90%
2010 -11 ACB 9566 Professionalism	9	GM	50	5.8±1.1 / 83%
2009-10 ACB 9560	10	G(M)	2/2	Not evaluated
2009 – 10 ACB 9566	10	G(M)	50	6.5±0.7 / 93%
2009-10 ACB 501 (Kin) PT 9501 OT 9528	72 49 56	UG(M) G(M) G(M)	28/42 28 28	6.8±0.5 / 97% 6.9±0.3 / 99% 6.7±0.6 / 96%
2009-10 Dentistry 5160 Systemic Anatomy	56	P(M)	11/5 (3 TA)	6.6±0.8 / 94%



2009-10 Dentistry 5185 Core Biology	56	P(M)	5/4 (3 TA)	6.9±0.3 / 99%
2009-10 Anatomy Labs Medicine	123	P(M)	~ 40 One of 4 facilitators amongst 2-3 TA groups ≈ 12-18 students	Average of 5 modules 6.2±0.8 / 89%
2008-09 ACB 9566/9666 Professional Skills	12	M(G)	40	6.1±0.6 / 87%
2008-09 Dentistry 5100	60	P	17/78 (3 TA support)	6.3±0.9 / 90%
2008-09 ACB 501 (Kin) PT 9501 OT 0528a	131	M (U) M (G) M (G)	28/42 (2)	6.7±0.6 / 96% 6.1±0.8 / 87% 6.5±0.6 / 93%
2008-09 Medicine (Anatomy Lab Teaching)	~120	P	0/35	6.2±0.8 / 89%
2007-08 ACB 563	11	M(G)	15	not evaluated
2007-08 Dentistry 5100	60	P	17/78 (3 TA support)	6.8±0.5 / 97%
2007-08 Med 120 – Cardiovascular Lecture	148	P	1/40	6.0±1.0 / 86%
2007-08 ACB 501 (Kin) PT 9501 OT 0528a	131	M (U) M (G) M (G)	28/42 (2)	6.4±0.8 / 91% (only an aggregate score was determined this year)
2007-08 HS203/ KIN222 Intersession	28	M (UG)	33/6 (no TA support)	6.7±0.5 / 96%
2006-07 HS203/ KIN222B	183	M (UG)	56/78 (3 TA support)	6.9±0.4 / 99%
2006-07 ACB225 /HS273B	40	M(G) / E(UG)	56/14 (1 TA support)	5.5±1.2 / 79%
2006-07 HS203/ KIN222A	376	M (UG)	56/112 (6 TA support)	6.8±0.5 / 97%
2006-07 HS233A	130	M(UG)	56/78 (3 TA support)	6.6±0.6 / 94%
2006-07 HS203/KIN222A Intersession	27	M (UG)	66/12 (no TA support)	6.8±0.5 / 97%
2005-06 HS203/KIN222B	130	M (UG)	56/78 (4 TA support)	6.6±0.9 / 94%
2005-06 HS203/KIN222A	424	M (UG)	56/154 (8 TA support)	6.2±1.1 / 89%
2005-06 HS233A	126	M (UG)	42/78 (3 TA support)	5.5±1.3 / 79%



Teaching Workshops Presented

10. Dreon, O., and **Wilson, T.D.**, Technology and Cognitive Load in the Blended Class Environment, The Teaching Professor Technology Conference, October 4-6, 2013, Atlanta, Georgia.
 - Developed and conducted workshop to help instructors understand the cognitive processes underpinning the use of visualizations in their blended and flipped learning environments.
 - attendees left understanding that no all visualizations will achieve the same learning outcome despite similar objectives.

<http://www.teachingprofessor.com/conferences/technology-conference-2013>
9. Dreon, O., Shibley, I., and **Wilson, T.D.**, Blended Learning Course Design: A Boot Camp for Instructors
 - Developed and conducted a 2 day conference for beginners learning to blend their respective disciplines, Madison, Wisconsin, July 29-30, 2013

<http://www.teachingprofessor.com/workshop/blended-learning>
8. Shibley, I., and **Wilson, T.D.**, A Leadership Workshop for Blended Learning Course Design
 - *June 20-21, 2013* - Instructional Technologies & Multimedia Services, Allegany College of Maryland, Cumberland MD
7. Dreon, O., Shibley, I., and **Wilson, T.D.**, Technology for Blended Courses
 - Developed and delivered a pre-conference workshop to the Teaching Professor The Teaching Professor Annual Conference, May 31-June 2, 2013, New Orleans, Louisiana

<http://www.teachingprofessor.com/conferences/conference/pre-conference-sessions>
6. **Wilson, T.D.** Lead by Blending our your courses - Competency will Follow
 - Developed and delivered a workshop outlining the strengths of a Blended Learning Environment as it pertains to increasing competency in the medical school learner
 - Developed online free tools with the learning specialists at that site in order to integrate the local technology and personnel in the process.

Lake Erie College of Osteopathic Medicine, May 16th, 2013, Erie Pennsylvania.
5. Dreon, O., Shibley, I., and **Wilson, T.D.**, Blended Learning Course Design: A Boot Camp for Instructors
 - Developed and conducted a 2 day conference for beginners learning to blend their respective disciplines

The Teaching Professor Workshop Series, Atlanta, Georgia, March 23-24, 2013

<http://go2conferences.com/us/blended-learning-course-design-a-boot-camp-for-instructors-23-mar-13-united-states>
4. **Wilson, T.D.** Blended Learning Approaches in the Practical Classroom



- Developed and conducted an afternoon workshop on opportunities for blending in the collegiate and vocational classroom.

The Un-Conference, Fanshawe College, London, Ontario, November 20th, 2012.

3. **Wilson, T.D. *Getting Started with Blended Learning***
 - Developed and conducted a 1 day workshop blending scientific classrooms Tufts University, Cummings School of Veterinary Medicine Mini-Symposium on Teaching and Learning with Technology, October 16th, 2012, North Grafton, MA
<https://wikis.uit.tufts.edu/confluence/display/TLR/Events>
2. Dreon, O., Shibley, I., and **Wilson, T.D. *Blended Learning Course Design: A Bootcamp for Instructors***
 - Developed and conducted a 2 day conference for instructors wishing to commence blending their classes
 The Teaching Professor Workshop, September 29-30, 2012, Cambridge Massachusetts.
<http://www.teachingprofessor.com/workshop/your-presenters>
<http://www.facultyfocus.com/workshop/>
1. Shibley, I. and **Wilson T.D. *Flipping the Classroom***
 - Developed and conducted an online seminar with educators throughout North America discussing methods of integrating more meaningful technology into their classes
 Magna Publications, August 23rd, 2012, Madison, Wisconsin.
<http://www.magnapubs.com/catalog/the-flipped-classroom-rethinking-the-way-you-teach/>

Teaching Materials and Resources Created

2. Shibley, I. and **Wilson T.D. *Blended Learning in Modern Education***, Magna International (Sept 2011-ongoing)
 - created 4 online instructional vignettes “20 Minute Mentors” highlighting methodologies surrounding Blended Learning approach to course development
 1. “What Is Blended Learning?”
 2. “Blended Learning: What Content Should Be Online?”
 3. “Should I Use ADDIE as a Design Map for My Blended Course?”
 4. “What Three Things Could I Do To Improve my Blended Course?”<http://www.magnapubs.com/bio/702/>
1. Classroom Participation System Marieb’s Anatomy and Physiology 5th Edition, 2006
 - developed “clicker” questions and templates for textbook used by anatomy, physiology, and nursing students across North America

Trainee Mentorship and Supervision



Supervision and Co-supervision

PhD (5 lifetime) In Progress (3)

- 09/13 - Danielle Brewer - Brain Activity during Visual Learning
ongoing - co-supervision with Adrian Owen PhD Brain and Mind Institute
- 09/11 - Victoria Roach - Visuospatial Perception and Surgical Training
ongoing - co-supervision with Roy Eagleson PhD Engineering
- 09/09 - Jay Loftus (Doctorate of Education - University of Calgary) Cerebral
ongoing Blood Flow responses to learning with complex images.
• co-supervision with Michele Jacobsen PhD Cognitive Psychology
University of Calgary

Completed (2)

- (09/08- Charys Martin (Kinesiology) - Exploration of 3D morphometrics of the hip
10/12) joint and reconstructive technologies
• Co-supervision with Charles Rice PhD Kinesiology
• Currently Assistant Professor at Medical College of Georgia
- (05/08 - Ngan Nguyen (ACB/Anthropology) - Visuospatial reasoning and it's effect on
05/12) learning
• Co-supervision with Andrew Nelson PhD Anthropology
• Currently post-doctoral fellow with Sandrine deRibaupierre, Clinical
Neurosurgery and Engineering.

MSc (24 lifetime) In Progress (1)

- 2012-14 Arjun Maini - Monitoring the effects of 2D vs 3D visualization modalities during
standardized laparoscopic testing in experienced clinicians.
• co-supervision with Steven Paulter MD (urology)

Completed (23)

- 2011-13 Jeremy Roth - Development of 3D histological approach (co-supervision with
Martin Sanding (ACB))
- Steven Holterman ten Hove - Temporomandibular disc morphology
(co-supervise with Khadry Ghalil (ACB))



Ben Asa - Biomechanical Exploration of fibular winging following below knee amputation (co-supervise with Michael Payne, Physical Medicine and Rehabilitation, Parkwood Hospital)

Sonya Van Nuland - The effects of competition amongst online anatomy learners using supplemental learning tools. (co-supervision with Dan Belliveau, Health Studies)

- 2010-12 (5) Louis Kour - No "I" in Anatomy: the ethnographic characterization of learning groups in the gross anatomy dissection laboratory
 James Turgeon - Development and testing of 3D brachial plexus - examination of the role of prior knowledge and module interactivity. (co-supervision: Kevin Armstrong MD - anesthesia)
 Kelly Pederson - 3D Brain stem and cranial nerve nuclei e-learning module (co-supervision: Sandrine deRibaupierre MD - neurosurgery)
 Lauren Allen - Development of fully interactive 3D eye model - comparison to standard online educational approaches. (co-supervision: Corey Moore MD - otolaryngology)
 Hannah Kim - Comparison of gross anatomy approaches to the anterior forearm: Syncretion vs Dissection
- 2009-11 (5) Victoria Roach - Is stereoscopic 3D the cutting edge of surgical skill education (co-supervision: Corey Moore MD - otolaryngology)
 Emily Isreal - MicroCT exploration of the maxilla (co-supervision: Khadry Ghalil, DDS, PhD dentistry/anatomy)
 Andrew Palombella - Morphometry of the temporal mandibular joint (co-supervision: Khadry Ghali)
 Andrew Jun - Using cognitive load theory to ameliorate existing e-learning modules (co-supervision Kevin Fung MD, otolaryngology)
 Rebecca Tompkins - Histological characterization of the Common Peroneal Nerve in Humans, a view towards better muscle sympathetic nervous activity (MSNA) measures (co-supervision K. Shoemaker PhD , kinesiology)
- 2008-10 (1) Natalie Massey - 3D exploration of the Inferior Alveolar Nerve through Micro- Computed Tomography. (co-supervision K. Ghalil, K. Ghalil, DDS, PhD dentistry/anatomy)
- 2007-09 (5) Aimee Sergovich (ACB) - Development of Digital Female Pelvis from the Visible Human Dataset (co-supervision M. Johnson PhD, anatomy)
 Christina Lew (ACB) - Development of virtual cerebro-ventricular system
 Michael Midgley (ACB) - Exploration of digital tools available to the modern anatomy educator
 Robin Hopkins (ACB) - Taking a bite out of the lab book - Digital muscles of mastication vs. traditional laboratory environments



Advisory Committees

PhD (2 lifetime)

- 2013 - Dongmei Cui - Development of 3D virtual anatomy laboratory and materials
ongoing University of Mississippi Medical Center, Jackson, MS
- 2011 - Stefanie Attardi - Exploration of online pedagogy for gross anatomy education
ongoing
- 2008 - Michele Barbeau - Comparison of Online vs. In-Class pedagogy
ongoing

MSc (12 lifetime)

- 2011 Ryan Rawski - Elaboration of the Anesthesia Digital Atlas for ultrasound-guided blocks
 Samantha Dunnigan - Development of online learning anatomical learning guide for radical hysterectomy
- 2010 Kathleen Milne - Development of Web-based clinical atlas for ultrasound-guided anesthesia
 Matthew Johnson - Development of virtual gastro-endoscope for clinical training
- 2009 Sid Bhattacharayya - Development of interactive Learning Module (3D-X) to enhance cross-sectional anatomical understanding of abdomen.
 Kyle Dorosh - Deployment and Evaluation of 3DX in medical trainees
 Maher Sabalbal - Digital and anatomical exploration of the geniculate arteries of the knee
- 2008 Harold Yim (ACB) - Construction of 4D heart
 Sarah Beech (ACB) - Exploration of the variations in the internal iliac artery in females
 Ashley Grau (HS) - Does shopping locally provide measurable health benefits?
- 2007 Kristyna Wakimoto (ACB) - MRI investigation of anterior leg musculature in the elderly.
- 2005 Miranda Deller (Kin-Lakehead) - Visuospatial acuity and driving reaction time in the elderly. Graduate Examining Committees



Examination Committees

PhD (11 lifetime)

- 2013 Steve Greening (Neuroscience)- Flexibly Adapting to Visual Cues
- 2011 Colin Dombroski (Health and Rehabilitation) - Gait Analysis of leg length variability: effects of correction through lifts.
Daniel Bechard (Kinesiology) - Walk softly and carry a big stick: Biomechanical analysis of gait in persons with high tibial osteotomy using walking sticks.
- 2010 Brian Dalton (Kinesiology) - Single muscle motor unit recording in the tibialis anterior
Christian Linte (Medical Biophysics) - Augmented reality tools for surgical training, Approach, Validation, and animal testing
Gregory DuManior (Kinesiology) - Leg extensor muscle oxygenation kinetics: correlates with femoral blood flow and near infrared spectroscopy.
- 2009 Bruce Frier (Kinesiology) - Role of heat shock proteins in muscle energetics
Lisa Chin (Kinesiology) - Effects of prior heavy exercise on the oxygen uptake kinetics of subsequent exercises in the elderly.
- 2008 Negin Ashki (Neuroscience) - Reactive Nitrogen and Oxygen Species Cause Reversible Axonal Conduction Deficits in the Mammalian Spinal Cord
- 2007 Michael Johnson (Kinesiology) - The role of type-II pain fibres in MSNA modulation during sympathoexcitation
- 2006 David Thorp (Kinesiology) - The role of heat shock proteins and coronary blood flow post MI

MSc (8 lifetime)

- 2013 Arthur Klages (Anthropology) - A micro-CT analysis of the homonid subnasal anatomy
- 2012 Ali Mulla (Kinesiology) - EEG and Kinematic behaviours in reaching
- 2011 Brigitte Valsamis (Neuroscience) - Modulation of prepulse inhibition by NMDA receptors
Catherine Hall (Rehabilitation Sciences) - The Effect of Aerobic and Resistance Exercise on Insulin Sensitivity and Glycemic Control in Type I Diabetic Rats.
- 2008 Andrew Wade (Anthropology) -
Marie-Claire Bourke (Kinesiology) - Oxygen uptake kinetics in older adults after pre-exercise warmup
- 2006 Deborah Saltzer (Kinesiology) - Metabolic syndrome and early onset diabetes in youth.
- 2005 Daniel Bechard (Kinesiology) - Biomechanical assessment of high calibre rowers

Graduate Examination Chair

Comprehensive Examination



2013 - Leila Kelleher (KIN)
 2010 - Michelle Barbeau (ACB)

Doctoral Defence Committee Chair

2012 - Choi-FongCho (Medical Biophysics)
 Gabrielle Young (Education)
 Phillip Mederos (Medical Biophysics)
 Seyed Reza Mahmoudi (Electrical and Chemical Engineering)
 Joel Shank (Geology)
 Ricardo Scucuglia (Education)

Undergraduate 4th Year Projects (19 lifetime)

2011 Katerina Matichuk (Art) - Mixed media exploration of digital and gross anatomy
 2010 Danielle Brewer (Kin) - Development and in class testing of a neuroanatomy trainer (see publication)
 Matt Devlin (MIT) - Exploration of presence in virtual worlds: Informing the potential use of online massive multiplayer environments for educational purposes.
 2008 Yang Ding (MedBioPhys)- Exploration of cognition of image and stereoscopic projection
 Jonathan Sen (HS) - Embryology of heart Formation
 Fiona Stewart (scholar's elective)- Water borne diseases of the developing world
 Nikita D'Souza (HS) - Neuronal plasticity of vision loss: A case study
 Michael Lok (HS) - Epidemiological investigation of knee injuries in female teenagers
 2007 Allan Hillis (Kin)- Radiographic and 3D Exploration of L4-5 disc herniation
 Kathleen Ewing (HS)- The role of breast feeding in developing nations
 Farheen Mussani (HS)- The role of health awareness on youth in Uganda, Kenya, and Tanzania
 Sebastian Vuong (Kin)- Investigation of artificial blood and it's role in battlefield dressage
 Melissa Martin (HS)- Development of 3D digital heart model for undergraduate education
 Mark Dickson (Kin)- Anatomical investigation of voice production and control.
 Ericka McNeil (Kin) - Coronary Heart Disease, Impacts and Epidemiology
 Fiona Stewart (Scholar's Elective) -
 2006 Farheen Mussani (HS)- Embryological Origins of Heart Malformations
 Matthew Legassic (HS) - Tele-health Informatics in Southwestern Ontario
 Yang Ding (Med Biophysics)- Explorations into 3D digital Volumetric Models for Education

High School

2012 -13 Lauren Black - Partners in Experiential Learning - CIHR PEL programme



2011-12 Amanda Philavong - Partners in Experiential Learning - CIHR PEL programme

Pedigree of Students Supervised:

Charys Martin - Assistant Professor
 Dept. of Cellular Biology & Anatomy
 Medical College of Georgia at
 Georgia Regents University
 Dec 2012- present

Ngan Nguyen - Post-Doctoral Fellow, Engineering, UWO May 2012 - present

Victoria Roach - PhD Candidate CRIPT Lab - Vanier Scholarship Nominee 2011-ongoing

Danielle Brewer, PhD candidate- ACB UWO 2013-ongoing

Lauren Allen, Teaching Certificate UWO, 2013 PhD candidate UWO -2013

Louis Kour - Sydney School of Medicine, Australia, 2016

James Turgeon - Head Anatomical Technician, Guelph, 2012

Tamara Stock - Head Anatomical Technician, Waterloo, 2010

Hanna Kim, Nursing University of Toronto 2012

Emily Israel - Dentistry - UWO class of 2015

Rebecca Tompkins - Ross Medical School Dissector Technician 2010, Nursing 2012, University of Western Ontario

Kathleen Milne - Medicine- UWO class of 2015

Mahar Sabalbal - Medicine - UWO class of 2015

Andrew Palombella - McMaster University - Head Anatomy Lab Technician

Tamara Stock - University of Waterloo - Head Anatomy Lab Technician

Ngan Nguyen - MSc & PhD - SSHRC doctoral award 2009-2011, UWO

Robin Hopkins MSc - PhD student, 2013, UBC - Glen Regehr

Kyle Dorosh MSc - Medicine, Class of 2013, McMaster University

Siddartha Bhattacharyya - Medicine, Class of 2014, UWO

Aimee Sergovich - Teacher, Teaching certificate 2009 UWO

Michael Midgley MSc - lecturer Nursing and ACB, UWO, fall of 2012 commencing a lecturship at Quinnipiac University, Connecticut.

Harold Yim MSc - Medicine, Class of 2013, Trinity College, Ireland

Natalie Massey MSc - Toronto School of Nursing - Class of 2012

Allan Hillis BHSc -Teacher, teaching certificate 2012 - UWO

Jonathen Sen BHSc - Medicine, Class of 2014, University of Toronto

Jennifer Boeckner MSc - Medicine, Class of 2012 University of Ottawa

Yang Ding BMSc - PhD student, Vanier scholarship awardee, 2014 - McGill

Farheen Mussani BHSc - governor general's gold medal award, Medicine, Class of 2011 University of Toronto

Miranda Deller MSc - Dentistry, class of 2012, UWO.



Invited Keynotes, Lectures, Panels, and Interviews

Scientific Keynote or Plenary Speaker

14. American Association of Anatomists Invited Speaker: The effects of image on learning and vice versa. April 2013, Boston, MA.
13. University of Mississippi Medical College - Tales from the CRIPT: A view towards digital learning objects: Understanding When, Where, and How to “look”, Jackson, Mississippi, February 5-7, 2013
12. Fanshawe College Culinary Division - Bringing Blended Learning Teaching to the Table, December 21, 2012.
11. Fanshawe College - The Un-Conference on Teaching and Learning - Experience with Blended Learning Techniques, November 20th, 2012
10. Tufts University, Cummings School of Veterinary Medicine, Keynote speaker at Mini-Symposium on Teaching with Technology, Getting Started with Blended Learning, North Grafton, MA., October 16th, 2012
9. Spring Perspectives on Teaching, Panel Speaker. Demonstration and Reflections towards a Blended Learning Environment, May 14, 2012
8. Student Success Centre, Keynote Speaker at Share a Career Path Series. The Long and Winding Road: Indirect and sometimes bumpy road to academic success. Gave interactive session and created video for potentially marginalized or low self-esteemed or under achieving graduate students and post-doctoral fellows. May 10, 2012
7. Diagnostic Imaging Roundtable Speaker. Does a picture say a 1000 words? The reality of the 3rd dimension, Mohawk College, May 10, 2012
<https://edseminars.apple.com/event/r/KW7WB-9hB-J6H-TDS6-8H640>
6. Discovery Days London Keynote Speaker. Tale of Two Simulators: Different Paths to the Same End. May 7th, University of Western Ontario, 2010
5. Tales from the CRIPT: Digital Anatomy Development and Implications for Education. University of North Dakota, Feb 22/2010
4. Schulich’s Mini-Medical School, Oct 2, 2008, The Body Shop: From Birth of an Idea to Burial in student’s memory banks. University of Western Ontario
3. Society of Graduate Students’ Western Research Forum, March 2008. Keynote speaker at Annual conference. “The Forrest Gump Approach to Interdisciplinary Endeavours” University of Western Ontario
2. First Nations Camp: “The Physiological Meaning of Dreams”. Talk to summer campers at Camp Giiwhisaah. Manitoulin Island, August 10, 2007
1. FHS March Break Open House. Several hundred potential students visited the faculty for opening comments and pep-talk before they dispersed to their schools of interest within the faculty. March 2006.

Lectures

27. Ready for University: Since February 2006 twice yearly, In collaboration with Mary Lorch and the Student Development Centre and Distance Education. (Spring and Fall)



26. Otolaryngology Undergraduate Medical Education Facilitator October 24th, 2009. London ON
25. CSTAR Collaborators Colloquium, CRIPT expose for CAE representatives. May 2009, London, ON.
24. *Seminar for the CIHR Strategic Training Program in Vascular Research, “Vestibular System, I’d like you to meet Blood Flow: Evidence of an Existing Friendship”.* February 2008, 2009, 2010
23. *Conversations with Professors*, March 2009, Ask not what you can do for the ITRC but what the ITRC can do for you.
<http://www.itrc.uwo.ca/projectSpotlight.html>
22. Indigenous Summer Camp – Mysteries of the Heart it’s Rate and the Pressure it creates for itself. Manitoulin Island July 2009
21. *Digital Imaging and Biomedical Ontology*, University of Western Ontario, University Hospital, The Use of Technologies in Educational Sphere’s: From CT to the Class. July, 2008.
20. London *Indigenous Services, Mini University Summer Camp. 3 D Anatomy Lessons.* July 2008
19. *Kinesiology Research Seminar, Vestibulo-Autonomic Interactions for Blood Pressure Regulation.* March 2008.
18. *Teaching Support Centre*, University of Western Ontario, Navigating the Teaching Assistant Supervisor Relationship. January 2008.
17. *Teaching Support Centre, Management of Graduate Students and Teaching Assistants.* University of Western Ontario, November 2007.
16. *Expanding Scholarship in Radiology Education. A new Approach for Gross Anatomy Education?* University of Western Ontario, August 24, 2007
15. *March Break Open House:* March 10, 2007:
14. *Community Hebrew Academy of Toronto.* October, 2007
13. *Anatatorium Tour of the Heart:* December 2006:.
12. *Keynote speaker at Anatatorium’s FHS Fall Preview Day:* November 18, 2006.
11. *Speaker for Choose Your Own Adventure:* November 2006:
10. *Teaching Support Centre* profiled lectures on undergraduate teaching excellence. October 2006.
9. *Community Hebrew Academy of Toronto,.* October, 2006
8. *Open Doors London:* September 2006.
7. *Teaching Support Centre’s Orientation for New Faculty,* September 2006.
6. *First Nations Services, Student Development Centre.* August 2006.
5. *Anatatorium Tour for Goodlife Fitness Canada.* August 15, 2006.
4. *New Faculty Orientation: Veteran New Faculty Perspectives:* August 2006.
3. *Anatatorium - Christie Digital* exposé of Technology in the Classroom. March 2006.
2. *Interprofessional Group* Keynote address. December 2005 (C. Herbert, C. Gibson. and two medical student volunteers)
1. *Teaching Support Centre’s Academic Job Search Panel.* November 2005.

Panels



2. *Lawson Health Research Day, Judging Committee*, Reviewed student posters in the Musculoskeletal Division, March 20, 2012
1. *Western Green Awards 2010 Selection Committee*, Reviewed nomination packages and came to a decision regarding the top two applicants.

Education-Based Interviews

2. American Dental Education Association Executive Director Dr. Rick Valachovic's *Charting Progress, Professor's Approach and Reflections on Flipping the Dental Classroom*, Interviewed by Nicole Fauteux on August 27th, 2012.
 - http://www.adea.org/about_adea/Pages/ChartingProgress.aspx
 - interview followed by article in September issue of this ADEA journal
1. Elena Zafra(Opinno), "Una linterna virtual para explorar el interior del cuerpo" [translation - A virtual flashlight to explore the interior of the body.] *Technology Reviews*, July 4, 2012.
 - http://www.technologyreview.es/read_article.aspx?id=40727&pg=2
 - interview with author followed by written submission to Spanish journalist



III. Service

Committees

University Level

July 2012-2015 - Member of SubCommittee on Teaching Awards (SUTA)

Faculty Level

Feb 2012 to present - Member of Undergraduate Dental Curriculum Committee (CUDC)

May 2011 to present - Member of Schulich Nominating Committee

Departmental Level

Jan 2011 to June 2012 - Member of Annual Performance Evaluation Committee

Sept 2007-present - Member of Anatomy and cell Biology Seminar Series Committee

September 2008 – present - Member of *Graduate Affairs Committee*

Society Level

2013 - Technical Advisory Board Member for Teaching with Technology Conference, Atlanta, Ga.

2013-2016 - Member of Educational Affairs Committee American Association of Anatomists (AAA)

2012-2015 - Member of Committee on Recruitment and Membership retention *American Association of Anatomists (AAA)*

2008 Member - Undergraduate Awards Committee (Autonomic Neuroscience) *American Physiological Society (APS)*

Publication Review

Associate Editor - Anatomical Sciences Education - February 2013 - present

Manuscript Reviewer

Anatomical Sciences Education

Academic Medicine

Autonomic Neurosciences

BMC - Neuroscience

Clinical Anatomy

Computers in Biology and Medicine

Computer Methods and Programs in Biomedicine

Education Sciences

Experimental Brain Research

Journal of Applied Physiology

Journal of Vestibular Research

Otology and Neurotology



Professional Memberships:

2010 - present - Centre Researcher - Centre for Education Research & Innovation (CERI)
 2010 - present - Member - Joint in Motion Program (JuMP)
 2010 - present - Member - The Biomedical Imaging & Research Centre (BIRC)
 2008 - 2010 - Member- Society of Teaching and Learning in Higher Education
 2006 - present - Member - American Association of Anatomists
 2004-12 - Member - Society for Neuroscience, autonomic and neural circuits sections
 2001-09 - Member - International Society of Cerebral Blood Flow and Metabolism
 1998-10 - Member - American Physiological Society

Professional Service, Scholarly Interviews, Films, & Radio

August 19-22nd, 2013: Facilitator for Instructional Skills Workshop

August 20-24th, 2012: [Instructor Skills Facilitator Workshop](#) at the **Teaching Support Centre**. after completing an instructor skill workshop chosen participants are invited back for facilitatory training in order to facilitate future ISW workshops around the world. ISW facilitator training teaches us how to facilitate group discussions, activities and feedback sessions surrounding good teaching practice.

May 2012: Consultant for Yap Productions, Guy Halpan, Providing anatomical insights into documentary outlining human body sounds. Production over summer and plan to air on **Discovery Channel** in 2013.

February 2012: Announcement of the Marilyn Robinson Teaching Award Western News
http://communications.uwo.ca/western_news/stories/2012/February/201112_awards_for_excellence_in_teaching.html

August 2011: **Instructional Skills Workshop (ISW)** at the **Teaching Support Centre (TSC)**
 - an intensive 4 day workshop hosted by the Teaching Support Centre where micro- teaches and constructive feedback activities were employed to expand the pedagogic skills of the participants.

June 2011: Instructional Technology Research Centre Spotlight on Projects and Faculty
<http://itrc.uwo.ca/spotlight-TimWilson.html>

November 2008: Documentary Scientific Co-Host, *The Body Machine*, **Discovery Channel**.
 Personal Clip: <http://www.youtube.com/watch?v=ZkrzWHs2pTA> (see 2:45min)
 Promotional clip: <http://www.youtube.com/watch?v=GTNTZS8mIoE>

October 2007: Western News: New Anatomy Graduates

August 2007: Stereoscopic Anatomy, Rogers Cable London.
<http://communications.uwo.ca/weblogs/Schulich/August14.html>



January 2007: London Free Press Minister of Education Funding announcement.

December 2006: Radio Interview with CBC Morning – Anatatorium Research

December 2006: Canada AM interview: What is the Anatatorium?
<http://www.anatatorium.com/CRIPT/Media.html>

December 2006: Ottawa Citizen: Anatatorium Story

December 2006: Calgary Herald: Anatatorium Story

December 2006: Victoria Times-Colonist: Anatatorium Story

December 2006: Vancouver Sun: Anatatorium Story

October 2005 Western News: Anatatorium Story

September 2005 A-Channel interview on First Day in New Professor's Life

Humanitarian/Ambassadorial Experiences

2005-07 *International Centre for Olympic Studies*: Olympic Council Member

1992-95 *French Immersion Studies: The Un-University Challenge*: Lived and worked in southern France (Cote d'Azur). Immersed in French language and cultural activities to foster language and trade skills. Certified stone mason apprentice (Menton) and guardian de villa (Pé Gras) in the Basse Alpes. Fostered trade, business, and language skills over this time.

1990-91 *Canada World Youth*: Part of a team of young Canadians and Malians on a 9 month young ambassadorial and culture exchange between rural Québec and and rural Mali, northwest Africa. The goal was to foster deeper understanding amongst and between Canadians and Malians. The exchange was undertaken entirely in French and Bambara the local languages.

1987 *Teen Missions International*: Part of a North American Team stationed in Poste Métier, Haiti. We aided local missionaries (Loyer family) in the construction of a new church, participated in Christian and cultural outreach programmes. The programme was hosted from the United States, Merrit Island Florida. The local language in Haiti was French and Creole.

Languages:

English - spoken, written
 French - spoken, informal writing
 Bambara - casually spoken