

Medical Student Research conducted at the Medical Anatomy Center (MAC), COMP-Northwest, Western University of Health Sciences

Research conducted by the MAC included areas within clinical sciences, basic sciences, and medical education. Research studies incorporated technologies and represented disruptive innovation. All studies came from Dr. Benninger. He mentored all students involved with research projects documented below.

A total of 165 research projects were completed between 2012 to date (5 years). Students conducting the research have an asterisk * prior to their name.

Total conferences presented with blind peer-reviewed abstracts: 31

Conference without blind peer review: 1 (invited to submit abstract for Bioscience)

National/International Conferences: 27

Regional or State Conferences: 5

Specific Osteopathic Conferences: 5

Students conducting research: 256

Student first authors who presented at conferences: 146

Research Awards: 19

American College of Foot and Ankle Surgeons January 2012, Los Angeles, CA

Blind peer reviewed abstracts and presentations accepted.

1.

BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Digital Clubbing: Have we lost the Art of its Clinical Significance

Awarded 1st Place for Platform Presentation (amongst faculty)

2.

*Taylor Delamarte¹, *Nik Matsler¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

The Os Peroneum and Accessory Navicular: An Integrated Radiographic and Cadaveric Study

Awarded 2nd Place (amongst students and residents)

3.

*Nik Matsler¹ and *Taylor Delamarter¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Classic Versus Millennial Anatomy – Integrating Curriculum with Dissection

International Association of Medical Science Educators Annual Conference

2012 – Portland, Oregon

4.

Amanda Miller* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Creating a novel basic and clinical science pedagogy by integrating multiple image mediums from donor-cadaver-patients while simultaneously dissecting them during an anatomy course by first year medical students creating clinical anatomy

5.

Meghan Aabo* and BENNINGER Brion¹⁻⁸ Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Using Anatomy to Create a Bi-Directional Peer-to-Peer Inter-professional Student Teaching Andragogy between Medical and Radiology Technician Students

Experimental Biology

American Association of Anatomists Annual Conference 2012 – April, San Diego, California

Peer and blind reviewed abstracts and presentations accepted.

* Mentored medical, dental and undergraduate students nominated for research award

6.

Taylor Delamarter* and BENNINGER Brion¹⁻⁸ Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

The Os Peroneum and Accessory Navicular: An integrated radiographic and cadaveric study.

7.

Matt Neimeyer* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Anatomy and pathology reports with donor-cadaver-patients.

8.

Rebecca Corbett*, Taylor Delamarter* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Comparative Ultrasound: novel finger probe versus classic probe.

9.

Megan Aabo* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health

Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Combining radiology technicians and medical students: Interprofessional teaching during a first year anatomy dissection lab course to develop imaging and interpretation skills.

10.

Andy Berglund* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Acute airway access and maintenance during anatomy dissection: An interprofessional teaching exercise integrating basic and clinical sciences.

11.

Nik Matlser* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Regional anatomy of the prostate: Are we providing the most clinically relevant material during the first year anatomy course.

12.

Benninger, Brion. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

History, aetiology and anatomical form of digital clubbing.

**American Association of Clinical Anatomists Annual Conference
2012 – July, Grenada WI**

Blind peer reviewed abstracts and presentations accepted.

13.

Kevin Post* and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative

Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Tibial Tuberosity: Classifying its Morphology and Clinical Relevance.

*Received national research award

14.

Benninger, Brion and William Merbs. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Protocol for Student Cadaver Dissection Assessment: Novel Scoring Approach.

15.

Benninger Brion, Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Novel femoral artery terminology: Integrating anatomy and clinical procedures leading to standardized intuitive nomenclature

16.

Benninger Brion and William Merbs, Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Does grading the quality of dissection lead to an improvement in first year medical student's anatomical understanding?

17.

*Julien Diegel and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Pericardiocentesis: Combining novel subxiphoid-right sternoclavicular joint approach with a thorax dissection lab for a clinical experience

*Received national student clinical science research award

18.

*Nik Matlser , *Taylor Delamarter and BENNINGER Brion¹⁻⁸. Departments of Anatomy and Family Medicine, Western University of Health Sciences Lebanon COMP – Northwest, Lebanon, OR. Departments of Orthopaedics and General Surgery, Samaritan Health Services, Corvallis Oregon. Departments of Orthopaedic Surgery & Rehabilitation, Surgery, Integrative Biosciences, Oral Maxillofacial Surgery, Oregon Health & Science University, Portland, OR

Classic versus millennial anatomy: full body dissection lab curriculum.

*Received national student education research award

19.

*CORBETT Rebecca¹, *Taylor DELAMARTER¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹ and Family Medicine², COMP-Northwest, Western University of Health Sciences, Lebanon, OR. Orthopaedics³ and General Surgery⁴, Samaritan Health Services, Corvallis, OR. Departments of Surgery⁵, Orthopaedic Surgery & Rehabilitation⁶ and Oral Maxillofacial Surgery⁷, Oregon Health & Science University, Portland, OR.

Novel finger-placed ‘hand palpation’ ultrasound probe can be effectively used by first year medical students identifying internal jugular and subclavian veins.

20.

*Nikolaus Matsler¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹ and Family Medicine², COMP-Northwest, Western University of Health Sciences, Lebanon,OR. Orthopaedics³ and General Surgery⁴, Samaritan Health Services, Corvallis, OR. Departments of Surgery⁵, Orthopaedic Surgery & Rehabilitation⁶ and Oral Maxillofacial Surgery⁷, Oregon Health & Science University, Portland, OR.

Prostate anatomy: analysis of controversies between anatomists and clinicians leading to improved structural recognition and terminology clarity

21.

*Taylor DELAMARTER¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹ and Family Medicine², COMP-Northwest,Western University of Health Sciences Lebanon, OR. Orthopaedics³ and General Surgery⁴, Samaritan Health Services, Corvallis, OR. Departments of Orthopaedic Surgery & Rehabilitation⁵, Surgery⁶ and Oral Maxillofacial Surgery⁷, Oregon Health & Science University, Portland, OR

Accessory navicular bone; clinically useful during first year anatomy

*Received national student basic science research award

22.

*Aaron STECKER¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Laryngeal nerve location vs terminology vs. clinical relevance: Evidence for change

Oregon Biosciences Annual Meeting October, 2012

23.

BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Assessing a novel ultrasound finger transducer vs. a classic transducer during a common procedure: user and technical differences

Society for Neuroscience Annual Conference 2012 – October, New Orleans

Blind peer reviewed abstracts and presentations accepted.

24.

*Aaron STECKER¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

The Term “Cranial Nerve” is Widely Used with an Inconsistent and Usually Absent Definition: Challenging Dogma

Experimental Biology

American Association of Anatomists Annual Conference

2013 – April, Boston, Massachusetts

Peer and blind reviewed abstracts and presentations accepted for April 2013

25.

BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Energize the anatomy lab experience with 18-minute tutorials

International Association of Medical Science Educators Annual Conference

2013 – St Andrews, Scotland

Blind peer reviewed abstracts and presentations accepted.

26.

*Stephanie Duckett¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Cross-fostering Ultrasound Education Utilizing Mentored Student Instructors

27.

*Rebecca Corbett¹ and BENNINGER Brion¹⁻⁸. Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine², Family Medicine³, COMP-Northwest, Western University of Health Sciences Lebanon OR Orthopaedics⁴, General Surgery⁵ Samaritan Health Services, Lebanon & Corvallis OR. Departments of Orthopaedic Surgery & Rehabilitation⁶, Surgery⁷, Oral Maxillofacial Surgery⁸, Oregon Health & Science University, Portland, OR.

Continuing ultrasound education through second year curriculum

American Association of Clinical Anatomists Annual Conference

2013 – July, Denver Colorado

Blind peer reviewed abstracts and presentations accepted.

28.

*Nik Matsler¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Confirmation of Endotracheal Tube Placement Utilizing Ultrasound

29.

BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Formally Acknowledging Donor-Cadaver-Patients in the Research Arena

30.

*Andrea Mytinger¹, Charles Kaluza¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Further Clinical Relevance of the Omohyoid Muscle

31.

*Andrea Matsen¹, *Rebecca Corbett¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Integrating ultrasound into 2nd year: creating a novel andragogy curriculum

32.

Aaron Stecker¹, *Nik Matsler¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Maximizing clinical skills and educational benefits from donor-cadaver-patients (DCP's)

33.

*Taylor Delamarter¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Novel slicing thickness improves anatomy and clinical education of the foot and ankle

34.

*Andy Berglund¹, *Nik Matsler¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound – How the anatomy lab developed a novel monitoring of CPR

35.

*Taylor Delamarter¹, *Cody Hull¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰,

Oregon Health & Science University, Portland, OR. USA.

Novel imaging cross sectional thickness to reveal ankle ligaments

36.

*Jonathon Shader¹, *Tyler Earley¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ophthalmic artery morphology reveals clinical benefits

37.

*John McClane¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Curriculum and morphology allocated to lower or lumbar back pain

38.

*Mike Kahan¹, *Amanda Miller¹, *Nik Matsler¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

“Turf Toe”: Anatomically underdeveloped, under-classified, and poorly diagnosed

39.

*Nik Brown¹, Charles Kaluza¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Combining video otoscopy with middle ear dissection in the anatomy lab

40.

*Patrick Bevan¹, *Corby Makin¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound Management and Anatomy of Distal Radius Fractures

41.

*Sarah Hughes¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Using andragogy methodology to teach anatomy to “Millennials”

42.

*Rebecca Corbett¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Using Ultrasound to Identify Radial Artery Prior to ABG

43.

*Tyler Earley¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Video laryngoscopy: Integrating Airway Anatomy in Cadaver Dissection Lab

World Congress: Ultrasound in Medical Education Annual Conference 2013 – September 27-29, Columbia, South Carolina

Peer reviewed abstracts and presentations

44.

*Rebecca Corbett¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound with finger probe allows simultaneously palpation and visualization

45.

*Kurtis Webster¹, Eric Vincelio¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Investigation of the sliding lung sign on embalmed cadaveric tissue: A teaching method for healthcare students.

Received 1st place Research Award

46.

*Stephanie Duckett¹, Jonathan Shader¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Cross-fostering Ultrasound Education Utilizing Mentored Student Instructors

47.

*Corby Makin¹, Patrick Bevan¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Comparing Ultrasound Probes: Classic versus Novel Finger Probe to Diagnose and Monitor Distal Radial Fractures

48.

*Adam Mina¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Integrating Donor Dissection, Simulation and Live Ultrasound, of the Femoral Region During an Anatomy Lab Course Enables First Year Medical Students to Conduct Femoral Nerve Blocks

49.

*Andy Berglund¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound Applied to Cadavers – Developing a Novel Monitoring of CPR

50.

*Rebecca Corbett¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial

Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Using Ultrasound to Identify Radial Artery Morphology Prior to Arterial Blood Gas Assessment

51.

*Nikolas Matsler¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Confirmation of Endotracheal Tube Placement Utilizing Ultrasound

20th Annual Scientific Assembly

American Academy of Emergency Medicine Annual Conference

2014 – February, New York, NY

52.

*Jonathan Shader¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Using Foreign Body Identification to Supplement the Anatomy of the Orbital Contents with Ultrasonography

53.

*Tyler Andrea¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound: cardiac fast exam, its application and instruction to healthcare students and trainees

54.

BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵

Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound with finger probe to visualize shrapnel

55.

Andy Berglund¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Using novel ultrasound finger probe to monitor carotid flow assessing CPR

Received Research Award

Experimental Biology

American Association of Anatomists Annual Conference
2014 – April, San Diego, CA

Peer and blind reviewed abstracts and presentations accepted for April 2013

56.

*Maha Abdulla¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Ultrasound of Femoral Nerve: A Gender Comparison

57.

*Ann Marie Collum¹, John Mata¹ and BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

CT guided ablation of 3rd molar tooth bud in swine

International Association of Medical Science Educators Annual Conference

2014 – Nashville, TN, USA

58.

*Stephanie Duckett¹, *Adam Mina¹ and BENNINGER Brion¹⁻⁸. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR. Faculty, Orthopaedics⁵, General Surgery⁶, Samaritan Health Services, Corvallis, OR. Faculty Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR.

Developing, maintaining, and advancing ultrasound skills with medical students while simultaneously training the medical community at large.

59.

*Rebecca Corbett¹ and BENNINGER Brion¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶, and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, and Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Maintaining and Enhancing Ultrasound Skills During 3rd year Medical School Rotations Integrating Basic Science, Patient encounters and self study autonomy

American Association of Clinical Anatomists Annual Conference

2014 – July, Orlando Florida

Peer and blind reviewed abstracts and presentations

60.

*HARLAN Chris¹, *Adam BURCH¹, and BENNINGER Brion^{1,2}. ¹Medical Anatomy Center, Departments of Medical Anatomical Sciences, Neuromuscular Medicine, Family Practice, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. ²Departments of Orthopaedics, and General Surgery, Samaritan Health Services, Corvallis, OR.

A novel but universal subcondylar classification system based on anatomical features

61.

*HORN David¹, *Hemra Cil^{1,9,10}, Jean-Louis Horn¹⁰, BENNINGER Brion¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA. Department of Anaesthesiology and Reanimation⁹, Hacettepe University, Ankara. Turkey. Department of Anesthesiology, Perioperative and Pain Medicine¹⁰, Stanford University Medical School, Stanford, CA. USA.

Proximal Adductor Canal – Thoroughfare or Separate space**62.**

*SWEENEY Scott¹, *Jesse Gortner¹, *Waylon Pearson¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Variable anterior jugular vein morphology and urgent airway procedures**63.**

*WOOD, Lyman¹, and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice³, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁴, Pomona CA. Departments of Orthopaedics⁵ and General Surgery⁶, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Lateral ankle sprain anatomy – can the bifurcate ligament be consistently identified with ultrasound on cadavers

Received top clinical science national student research award

64.

*WERTHEIMER, Alex, *Devin OLSEN and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³,

Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Central column knee classification: A novel approach to augment specific knee structures of clinical relevance

65.

*GORTNER Jesse¹, *Scott SWEENY¹, *Waylon PEARSON¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Variable modalities of endotracheal tubes to visualize vocal cords using ultrasound with donor cadaver patients

66.

*NOBLE Matthew¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice³, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁴, Pomona CA. Departments of Orthopaedics⁵ and General Surgery⁶, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Use of ultrasound to identify foreign bodies in variable cadaver preparations

67.

*CORBETT Rebecca¹, *Tyler ANDREA¹, *Eric VINCESLIO¹, *Matthew NOBLE¹, and Brion BENNINGER^{1,2}. ¹Medical Anatomy Center, Medical Anatomical Sciences, Neuromuscular Medicine, Family Practice, Western University of Health Sciences, Lebanon, OR. ²Faculty, Orthopaedics, General Surgery, Samaritan Health Services, Corvallis, OR. USA.

Conducting FAST exam to identify spaces and cavities of the abdomen and thorax using a novel ultrasound finger array probe with variable cadaver preparations.

68.

*DODGE Nate¹, *Brett Ostrander¹, *Babe Westlake¹, and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona

CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA

Posterolateral Corner of the Knee – Erasing the Myth of the Dark Side

69.

*WESTLAKE Babe¹, *Brett OSTRANDER¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Posteromedial corner of the knee – integrating regional anatomy with the clinical arena to advance healthcare education and treatment delivery.

70.

*VINCESLIO Eric¹, *Matthew NOBLE¹, and Brion BENNINGER^{1,2}. ¹Medical Anatomy Center, Medical Anatomical Sciences, Neuromuscular Medicine, Family Practice, Western University of Health Sciences, Lebanon, OR. ²Faculty, Orthopaedics, General Surgery, Samaritan Health Services, Corvallis, OR. USA.

Applying a novel US finger probe and FAST exam to identify structures of the abdomen and thorax with cadavers wearing personal armor.

71.

*VINCESLIO Eric¹, *Kurtis Webster¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR. Faculty, Orthopaedics⁵, General Surgery⁶, Samaritan Health Services, Corvallis, OR. Faculty Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR.

Learning the Ultrasound Sliding Lung Sign on Embalmed Cadaveric Tissue: Method for ED Professionals to Acquire Competence of Endotracheal Intubation and Pneumothorax Assessment.

**American Society of Echocardiography Conference
2014 – August, Portland Oregon**

Received Innovative Product of the Year award

BENNINGER Brion¹⁻¹⁰. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵

Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Google Glass & Ultrasound SonicEye finger probe

International Federation of Anatomy Associations

2014 – August, Beijing China

Chair of 2 symposia

Presented 2 oral platforms

72.

BENNINGER Brion¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

The Temporomandibular joint and a novel international classification of subcondylar fractures'

73.

BENNINGER Brion¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA

Scapulodyskinesia requires knowledge of Scapulothoracic, and Scapulohumeral rhythm

Vesalius 500th Birthday Celebration

2014 – September, Zachynthos, Greece

74.

BENNINGER Brion¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP-Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵ Pomona, CA. Departments of Orthopaedics⁶, General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA

Vesalius saw the body in 3-D and in motion, leading to triple feedback

World Congress: Ultrasound in Medical Education Annual Conference 2014 – October, Portland, Oregon

Peer and blind reviewed abstracts and presentations accepted for October 2014

75.

*BURCH, Adam¹, *Chris HARLIN¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

A Novel Universal Subcondylar Classification System Based on Anatomical Features for Ultrasound Triage

76.

*MINA, Adam¹, *Tyler Andrea¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

A Novel Integration of the Fast FATE Exam to Rapidly Assess the Thorax in Acute and Subacute Clinical Situations

77.

*WESTLAKE Babe¹, *Nathan DODGE¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Posteromedial corner of the knee – clinical ultrasonography and applications to cadaveric specimens, a comparative study.

78.

*WEBSTER, Kurtis^{1, 2}, *Eric Vinceslio^{1, 2} and Brion Benninger¹⁻⁹. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR. Faculty, Orthopaedics⁵, General Surgery⁶, Samaritan Health Services, Corvallis, OR. Faculty Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR.

Applying ultrasound sliding lung sign to cadaveric tissue of varied preparations: method of identifying endotracheal intubation and diagnosing pneumothorax

79.

*WERTHEIMER, Alex¹, *Devin OLSEN¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Central Column Knee Classification: A Novel Approach to Augment Specific Knee Structures of Clinical Relevance

80.

*CORBETT, Rebecca¹, *Eric Vinceslio¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Conducting FAST exam to identify spaces and cavities of the abdomen and thorax using a novel ultrasound SonicEye finger array probe with variable cadaver preparations.

81.

*WOOD, Lyman¹, *Bryan Beall¹, and Brion Benninger¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Lateral Ankle Sprains - Using Ultrasound to Consistently Identify the Bifurcate Ligament Anatomy on Cadavers

82.

*WOOD, Lyman¹, *David HORN¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports

Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Integrating augmented reality (Google Glass) with novel SonicEye finger and classic linear transducers to identify the bifurcate ligament in live and cadaveric tissue during medical anatomy dissection course

83.

*DODGE, Nathan¹, *Babe WESTLAKE¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Ultrasound of Posterolateral Corner of the Knee: Addressing the Dark Side

84.

*NOBLE, Matthew¹, *Eric VINCESLIO¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Comparing Ultrasound Probes to identify foreign bodies in variable cadaver preparations

85.

*SWEENEY, Scott¹, *Jesse GORTNER¹, *Waylon PEARSON¹ and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹ Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸ Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Variable Anterior Jugular Vein Morphology and Urgent Airway Procedures

86.

*GORTNER, Jesse¹, *Scott SWEENEY¹, *Waylon PEARSON¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences,

COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸ Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Variable modalities of endotracheal tubes to visualize vocal cords using ultrasound with donor cadaver patients

87.

*SHADER, Jonathan¹, and Brion BENNINGER^{1,3-10}, Medical Anatomy Center, Departments of Medical Anatomical Sciences¹ Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona, Department of Radiology², Loma Linda University School of Medicine, Loma Linda, CA, Neuromuscular Medicine³, Family CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Oral Maxillofacial Surgery⁸, Surgery⁹, Orthopaedics & Rehabilitation¹⁰, Oregon Health & Science University, Portland, OR. USA.

Integrating Ultrasound Orbital Anatomy and Foreign Body Exploration with Donor Cadaver Patients as a training method for Emergency Medicine Personnel

88.

*MCDANIEL, Deeka¹, and Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸ Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Syncing Glass with novel SonicEye ultrasound linear and biplanar finger transducers during anatomy dissection lab exams of 1st year medical students

Received Top Ultrasound Research Award

89.

*HORN David¹, *Hemra Cil^{1,9,10}, Jean-Louis Horn¹⁰, Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Departments of Orthopaedics⁶ and General Surgery⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA. Department of Anaesthesiology and Reanimation⁹, Hacettepe University, Ankara. Turkey. Department of Anesthesiology, Perioperative and Pain Medicine¹⁰, Stanford University Medical School, Stanford, CA. USA.

Proximal Adductor Canal – Thoroughfare or Separate space

90.

*KENYON, Bonnie¹, *David HORN¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³,

Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Comparing ultrasound images and probes between variable cadaver preparations for health care training

**Osteopathic Medical Education Annual Meeting
2014 – October, Seattle, Washington**

Peer and blind reviewed abstracts and presentations accepted.

91.

*BIRCH, Adam¹ *Cody Hull¹, *David Horn¹, and Brion Benninger¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Medicine⁴, Western University of Health Sciences, Lebanon, OR. Departments of Orthopaedics⁵ and General Surgery⁶, Samaritan Health Services, Corvallis, OR. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR.

Evidence of successful recording and quality audiovisual stimulation from Google Glass in the anatomy lab

92.

*BURCH, Adam¹, *Chris HARLIN¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

A novel but universal subcondylar/mandibular classification system based on anatomical features

93.

*WESTLAKE, Babe¹, *Brett OSTRANDER¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Posteromedial corner of the knee – further integrating regional anatomy with the clinical arena to advance healthcare education and treatment delivery

94.

*Beall, Bryan¹, *Lyman Wood¹, and Brion Benninger¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Lateral Ankle Sprains - Using Ultrasound to Consistently Identify the Bifurcate Ligament Anatomy on Cadavers

95.

*HORN, David¹, *Adam Burch¹, *Cody Hull¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Evidence of successful streaming with audiovisual quality using Google Glass integrating the anatomy of a clinical examination

96.

*GORTNER, Jesse¹, *Scott SWEENEY¹, *Waylon PEARSON¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Variable modalities of endotracheal tubes to visualize vocal cords using ultrasound with donor cadaver patients

97.

*HULL, Cody¹, *Adam Burch¹, *David Horn¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Evidence that Google Glass recording and editing for video manuscript can be performed using Final Cut Pro software

98.

*WEBSTER, Kurtis^{1, 2} *Eric Vineslio^{1,2} and Brion Benninger¹⁻⁸. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR. Faculty, Orthopaedics⁵, General Surgery⁶, Samaritan Health Services, Corvallis, OR. Faculty Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR.

Applying ultrasound sliding lung sign to cadaveric tissue of varied preparations: method of identifying endotracheal intubation and diagnosing pneumothorax

99.

*WOOD, Lyman¹, *David HORN¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Novel SonicEye linear ultrasound finger probe can be used to identify the bifurcate ligament when placed onto a standardized surface anatomy template

100.

*HERNER, Maranda¹, *David Horn¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Evidence that Google Glass anatomy presentations can be recorded at a distant site supporting andragogy learning

101.

*MINA, Adam¹, *David Horn¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Novel ultrasound study revealing live scanning viewed in Google Glass

102.

*OSTRANDER, Brett, *Babe WESTLAKE¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³,

Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Posterolateral Corner of the Knee: Erasing the Myth of the Dark Side

103.

*SWEENEY, Scott¹, *David Horn¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Benefits of novel ultrasound finger probe with compatible Google Glass imaging during live scanning

104.

*VINCESLIO, Eric¹, *Matthew Nobel¹, *Matthew Trevino^{1,10}, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA, 304th Rescue Unit¹⁰, USAFR, Portland, OR. USA.

Applying a novel US finger probe and FAST exam to identify structures of the abdomen and thorax with cadavers and live patients wearing personal armor

105.

*Zaworski, Erica¹, * Adam BURCH¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Identifying mandibular fractures using SonicEye linear ultrasound finger probe

106.

*WERTHEIMER, Alex¹, *Devin OLSEN¹, Brion BENNINGER¹⁻⁹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Departments of Orthopaedics⁵, General Surgery⁶ and Sports

Medicine⁷, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁸, Orthopaedics & Rehabilitation⁹, Oregon Health & Science University, Portland, OR. USA.

Central Column Knee Classification: An Educational Approach to Knee Structures

Sectra Annual International Business Meeting

2014 – November, Copenhagen Denmark

American Military Surgeons of United Services Annual Meeting

2014 – December, Washington DC

Peer and blind reviewed abstracts and presentations accepted for December 2014

107.

*VINCESLIO Eric¹, *Matthew Noble¹, *Matthew Trevino¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR, USA.

Configuration of live ultrasound use in helicopters to optimize light discipline

108.

*VINCESLIO Eric¹, *Matthew Noble¹, *Matthew Trevino¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

Applying an Ultrasound finger probe FAST exam identifying thoracoabdominal structures wearing personal armor.

109.

*NOBLE Matthew¹, *Eric VINCESLIO¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

Comparing Ultrasound Probes to identify foreign bodies in variable cadaver preparations.

Experimental Biology

American Association of Anatomists Annual Conference

2015 – April, Boston Mass

Peer and blind reviewed abstracts and presentations submitted for April 2015

110.

*BARRACK Daniel¹ and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

A step-by-step visual guide to using the Sectra Visualization Table for 1st and 2nd year medical students

111.

*Horn David¹ and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

Sectra Visualization Table used during systems courses teaching stereostructural anatomy

112.

BENNINGER Brion¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

Sectra Visualization Table addresses stereostructural anatomy

American Association of Colleges of Osteopathic Medicine (AACOM)

2015- April, Florida

BENNINGER Brion¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health

Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland
Google Glass Technology for basic sciences

American Association of Clinical Anatomists Annual Conference **2015 – June, Las Vegas, Nevada**

Invited Speaker – Innovation and technology in Anatomy

BENNINGER Brion¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

113.

Steven CARMICHAEL¹, Tom SCHLUNDT¹ BENNINGER Brion¹⁻⁸. Willed Body Donation Program¹, Medical Anatomy Center², Departments of Medical Anatomical Sciences³, Neuromuscular Medicine⁴, Family Practice⁵, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁶, Pomona CA. Orthopaedic⁷ and General Surgery⁸ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Comparing cadaver preparations for maximum imaging quality used for anatomy teaching courses, CME's and research

Received AACA research award

International Association of Medical Science Educators Annual Conference (IAMSE) **San Diego, June 2015**

114.

*Blandford Ian¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Self-Learning Of Ultrasound FAST Exam While Studying Clinical Anatomy Using The 7D Imaging Educational Software

115.

*McLANE, Lisa¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Comparing classic array versus novel SonicEye biplanar finger probe to identify the uterus and ovaries suprapubically in millennial anatomy dissection lab.

116.

*Natkha Vitaly¹, *David Horn¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Percuision: DirectVision camera guided urinary catheterization training during medical students anatomy lab

Received Editors Choice top research award

117.

*KIMBAL Adam, *Bonnie KENYAN¹, *David HORN¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Comparing ultrasound images and probes between variable cadaver preparations for health care training

118.

*Liana DAGDACARYAN, *Adam BIRCH¹ and Brion Benninger¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Medicine⁴, Western University of Health Sciences, Lebanon, OR. Departments of Orthopaedics⁵ and General Surgery⁶, Samaritan Health Services, Corvallis, OR. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR.

Using Augmented Reality in the Form of Google Glass to Examine Students in the Medical Anatomy Lab

119.

*CARTER John¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Integrating a 3D/4D ultrasound probe into a millennial anatomy dissection lab with continuation into 2nd year systems courses.

120.

*PATEL Ankura¹, *John CARTER¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. US

Integrating 3D/4D ultrasound of the spleen during medical anatomy dissection lab and systems courses to augment stereostructural imaging

121.

*BARAN Kelsey¹, *John CARTER¹ *Ankura Patel¹ *David Horn¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Performing 3D/4D ultrasound of the kidney during anatomy dissection lab and systems courses to facilitate stereostructural imaging

122.

*HORN David¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

CT/MRI DICOM files from cadavers were successfully rendered into 3D stereostructural anatomy by the Sectra Visualization Table.

123.

*KOZACEK Kyler¹ and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Wrist-worn, wireless ultrasound system integrated with the SonicEye finger probe performing FAST exam in military arenas

124.

*BARRACK, Daniel¹, *David HORN¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Visual Text Guide (VTG) using the Sectra Visualization Table for healthcare trainees

125.

*WRIGHT Jonathon¹ and Brion Benninger². Medical Anatomy Center¹, Departments of Medical Anatomical Sciences¹, Neuromuscular Medicine¹, Family Practice¹, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Orthopaedic² and General Surgery² Residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Developing a surface anatomy landmark ratio to identify kidneys in cadavers with finger ultrasound.

**Osteopathic Physicians and Surgeons of Oregon (OPSO),
Portland, Oregon September 2015**

Blind peer reviewed abstracts

126.

*CARTER John¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. USA.

Integrating a 3D/4D ultrasound probe into a millennial anatomy dissection lab with continuation into 2nd year systems courses.

Received Top Research Award

127.

*PATEL Ankura¹, *John CARTER¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, OR. US

Integrating 3D/4D ultrasound of the spleen during medical anatomy dissection lab and systems courses to augment stereostructural imaging

128.

*Natkha Vitaly¹, *David Horn¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Percuision: DirectVision camera guided urinary catheterization training with cadavers for healthcare trainees

129.

*KOZACEK Kyler¹ and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Wrist-worn, wireless ultrasound system integrated with the SonicEye finger probe allows life threatening assessment in wilderness medicine

**American Association of Clinical Anatomists Regional Conference
2015 – October, Salt Lake City, Utah**

130.

BENNINGER Brion¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

Head & Neck ultrasound fundamentals – Who, Why, & the future?

American Military Surgeons of United Services Annual Conference
2015 – December, San Antonio

131.

*BLANDFORD Ian¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

7D Imaging Interactive Ultrasound Software can Tutor eFAST Exam for Military Medical Personnel

132.

*VINCESLIO Eric¹, *Matthew TRAVINO, *David HORN and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Teaching Pre Hospital Paramedics the Ultrasound FAST and eFAST Exams

133.

*KAMLA Zarchariah¹, *David HORN¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Sectra Visualization Table renders 3D CT/MRI and teleports into Glass

134.

*KOZACEK Kyler¹, *David HORN¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Wrist-worn, wireless ultrasound system integrated with SonicEye finger probe performing FAST exam in military arenas

135.

*EONTA Stephanie¹, *David HORN¹, *Ian BLANDFORD¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Sectra Visualization Table renders CT/MRI scans into 3D-stereostructural anatomy for advanced manipulation of lower-limb arteries

136.

*Matthew TRAVINO¹, *Eric VINCESLIO¹ and BENNINGER Brion¹⁻⁷, . Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Conducting eFAST ultrasound exam with SonicEye finger-probe during field maneuvers in a Black-Hawk UH-60 Helicopter

American Academy of Emergency Medicine Annual Conference 2016 – February, Las Vegas, NV

137.

*TAVANGARY Fardis¹, *Peter OVERTON-HARRIS¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Identifying Temporal-Region Fractures Using Ultrasound and Comparing Finger versus Classic Linear Probes

138.

*PATEL Sachi¹, *Fardis TAVANGARY¹, *Wesley TANG¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Using Ultrasound to Identify Zygomatic Fractures and Comparing Finger versus Classic Linear Probes

139.

*OVERTON-HARRIS Peter¹, *Sachi PATEL¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Ultrasound Identification of Nasal Bone Fractures: A Comparison of Finger versus Classic Linear Probes

140.

*TAVANGARY Fardis¹, *Jessie GORTNER¹ and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Variable Modalities of Endotracheal Tubes to Visualize Vocal Cords Using Ultrasound with Unembalmed Donor Cadaver Patients

141.

*RICHARDSON Emily¹, *Wesley TANG¹, NELSON¹, and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Developing a Training Tool for Novice Ultrasound Users Identifying Skull and Facial Fractures with Unembalmed Cadaveric Tissue using Multiple Probes

**Osteopathic Physicians and Surgeons of Oregon (OPSO),
Sunriver, Oregon February 2016**

Blind peer reviewed abstracts

142.

*Delamarter Taylor and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

The Anterolateral ligament: ultrasound identification and dissection challenging lateral collateral ligament diagnosis and morphology

Received Top Research Award

143.

*Henning Andreas and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Variable Modalities of Endotracheal Tubes to Visualize Vocal Cords Using Ultrasound with Unembalmed Donor Cadaver Patients

144.

*Natkha Vitaly and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Using Augmented Reality in the Form of Google Glass to Examine Students in the Medical Anatomy Lab

145.

*McLane Lisa and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Comparing Classic Array Versus Novel Soniceye Biplanar Finger Probe To Identify The Uterus And Ovaries Suprapubically In Millennial Anatomy Dissection Lab

146.

*Wang David¹ and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Can CBCT of Maxillary and Mandibular Morphology be Rendered Into 3D Imaging By the SECTRA Visualization System For Implant Surgery and Anatomy Education

Received Top Clinical Science Research Award

147.

*Blandford Ian and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College

of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Self-Learning Ultrasound FAST Exam While Studying Clinical Anatomy Using the 7D Imaging Educational Software

Received Top Education Research Award

148.

*Baran Kelsey and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Performing 3D/4D ultrasound of the kidney during anatomy dissection lab and systems courses to facilitate stereostructural imaging

Received Top Basic Science Research Award

149.

*Henning Andreas and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Sectra Visualization Table renders CT/MRI scans into 3D-stereostructural anatomy for advanced manipulation of lower-limb arteries

150.

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Can the Median Nerve Be Identified On Cadaveric Specimens and Healthy Individuals By Novice Medical Students Using High-Resolution Ultrasound Probes in the Wrist and Hand Region

151.

*Goddard Scott and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Ulnar Collateral Ligament Identification Using High-Resolution Musculoskeletal Ultrasound Transducers By Medical Students on Donor Cadavers and Healthy Individuals

International Association of Medical Science Educators Annual Conference
2016 – Holland

152.

*BLANDFORD Ian¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Teaching Musculoskeletal System Ultrasound During Anatomy Using An Interactive 7D Software Program

153.

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Using Augmented Reality In The Form Of Google Glass To Teach & Examine Students In The Medical Anatomy Lab

154.

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Prostate Health - Index Finger Length Of Medical Students Reveals Evidence To Train Physicians To Use Transrectal Ultrasound Probe

Top Research Award

American Association of Clinical Anatomists Annual Conference
2016 – June, Oakland, Ca

155.

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Can CBCT Of Maxillary and Mandibular Morphology Be Rendered Into 3D Imaging By the SECTRA Visualization System For Implant Surgery and Anatomy Education

156.

*MOUSSELLI Robert¹, *Cody LAVDIERE¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, Oregon

Is There More To Wrist Extension Than Radial Artery Movement Prior To Cannulation And Blood Draw?

157.

BLANDFORD, Ian and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, Oregon

Wearable Miniaturized Wireless Wrist-Worn Ultrasound System with an Integrated Dual-Plane Finger-Worn Probe for the Extended Fast Exam.

158.

*DELAMARTER Taylor, *Cody LAVDIERE¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA.

Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, Oregon

The Anterolateral ligament: ultrasound identification and dissection challenging lateral collateral ligament diagnosis and morphology

159.

DASKALAKAS Nikolas, Helen Lu and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, Oregon

Urinary Catheterization: Procedure Learned In the Anatomy Lab Using Directvision Camera Technology

160.

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First Metatarsophalangeal Joint Anatomy: Can the Volar Plate Be Visualized In Cadaveric Tissue and Healthy Volunteers With High-Resolution Musculoskeletal Probe?

161.

TRAN, Jenny and Brion BENNINGER¹⁻⁷. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, Lebanon, OR, USA. Faculty, Orthopedics⁵, General Surgery⁶, Sports Medicine⁷, Samaritan Health Services, Corvallis, OR. USA.

Can the Median Nerve Be Identified On Cadaveric Specimens and Healthy Individuals By Novice Medical Students Using High-Resolution Ultrasound Probes in the Wrist and Hand Region

162.

*HOCUM Gabe¹, *Brenna Connett¹ and Brion BENNINGER¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University,

Portland, Oregon

Teaching Ultrasound Of Three Clinically Important Upper Limb Structures During Anatomy Using the 7D Interactive Software Program

163.

*PASVANTIS Taylor ¹, Ian BLANDFORD ¹, and **Brion BENNINGER** ¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland, Oregon

When Venipuncture Becomes the Aurora Borealis

164.

*WANG David ¹ and Brion BENNINGER ¹⁻⁸. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

SECTRA Could Improve Spatial and Stereostructural Anatomy Interacting With a Virtual Clinical World.

165.

BENNINGER Brion ¹⁻⁸ and Arnob K. Mukherjee¹. Medical Anatomy Center¹, Departments of Medical Anatomical Sciences², Neuromuscular Medicine³, Family Practice⁴, Western University of Health Sciences, COMP–Northwest, Lebanon, OR. USA. Faculty, College of Dental Medicine⁵, Pomona CA. Orthopaedic⁶ and General Surgery⁷ residency faculty, Samaritan Health Services, Corvallis, OR. USA. Departments of Surgery⁷, Orthopaedics & Rehabilitation⁸, Oregon Health & Science University, Portland

Novel Microendoscope Placed Into Donor Specimen In Anatomy Lab To Reveal Ductal Anatomy

**Summer Research Projects from the MAC
June-August, 2016**

5 - High School Student researchers from local High Schools

2 – Post Baccalaureate researchers from *University of Oregon* and *Oberlin College*.

5 – COMP-Northwest DO student researchers

Medical Anatomy Innovation, Dissecting & Research Course

We are finalizing a 6-8 week integration course of *medical anatomy innovation* dissection and research in German from June –August. Plan to take 8-10 students.

Telemedicine and eHealth New Orleans, August 2016

MAC research has been accepted for an Oral presentation on Telemedicine research from the MAC titled Telequantum Medical Education

Osteopathic Physicians and Surgeons of Oregon (OPSO), Portland, Oregon. September 2016

We are submitting student research abstracts for this regional conference

Osteopathic Medical Conference & Exposition (OMED) Anaheim, California September 17-20, 2016

We are planning to submit between 10-20 projects depending on completion by abstract deadline.

World Congress Ultrasound In Medical Education Texas, September 17-20, 2016

We are planning to submit between 5-10 projects depending on completion by abstract deadline.