

UH ADULT & PEDIATRIC  
ALLERGY/IMMUNOLOGY FELLOWSHIP 2019-20

---

**OSTEOPATHIC RECOGNITION**

## OSTEOPATHIC PROGRAM PERSONNEL 1.

---

**DESCRIBE ANY ADDITIONAL QUALIFICATIONS FOR THE DIRECTOR OF OSTEOPATHIC EDUCATION, NOT LISTED IN THE ACCREDITATION DATA SYSTEM (ADS) FACULTY ROSTER THAT ARE RELEVANT TO THE ROLE. IF NONE, INDICATE "NOT APPLICABLE" IN THE BOX BELOW (4)].**

- ▶ Not applicable.

## OSTEOPATHIC PROGRAM PERSONNEL 1.

LIST THE PARTICIPATING SITES WHERE FELLOWS WILL RECEIVE EDUCATION IN OSTEOPATHIC PRINCIPLES AND PRACTICE (OPP), ALONG WITH THE OSTEOPATHIC FACULTY MEMBER APPROVED AS THE LOCAL SITE DIRECTOR WHO IS ACCOUNTABLE FOR DESIGNATED OSTEOPATHIC FELLOW EDUCATION AND SUPERVISION.

	Name of Participating Site	Name of Site Director
1	Allergy/Immunology Associates, Inc., 5915 Landerbrook Drive #110, Mayfield Heights, Ohio 44124	Robert Hostoffer, DO, MEd, FAAP, FACOP, FACP, FACOI, UH Adult & Pediatric Allergy/Immunology Fellowship Program Director  Devi Jhaveri, DO, FAAP, FACOP, UH Adult & Pediatric Allergy/Immunology Fellowship Assistant Program Director
2	University Hospitals (UH) Cleveland Medical Center, 11100 Euclid Avenue, Cleveland, Ohio 44106	Robert Hostoffer, DO, MEd, FAAP, FACOP, FACP, FACOI, UH Adult & Pediatric Allergy/Immunology Fellowship Program Director  Devi Jhaveri, DO, FAAP, FACOP, UH Adult & Pediatric Allergy/Immunology Fellowship Assistant Program Director
3	UH Richmond Medical Center, 27100 Chardon Road, Richmond Heights, Ohio 44143	Christopher L. Tangen, DO, Program Director, ACGME-accredited Transitional Year Program, UH Regional Hospitals, Medical Director, Sports Medicine  Susan M. Ratay, DO, MS, Director of Osteopathic Education, University Hospitals Osteopathic Consortium

**Name:** DEVI JHAVERI D.O.  
**Office Address:** 5915 Landerbrook Dr. #110  
 Mayfield Heights, OH 44124  
 216 381 3333  
 312 399 5533  
 drjhaveri@allergycleveland.com

**CURRICULUM VITAE**

Robert William Hostoffer, Jr., D.O.  
 Home: 5536 Prestwick Ln.  
 Highland Hts., Oh 44143  
 Business: Allergy Immunology Associates, Inc.  
 161 South Green Road  
 South Euclid, Ohio 44121

August 31, 1959

Pleasant, PA

Karen Louise  
 Children: Alexander David, Vincent Michael,  
 Thomas James, Sarah Irene, Zachary Thomas

Mary's Preparatory  
 Chardon Lake, Michigan, 1977

Carroll University  
 University Heights, OH  
 B.S. (Biology), 1981

Philadelphia College of Osteopathic Medicine  
 Philadelphia, PA  
 D.O., 1985

Lake Erie College of Osteopathic Medicine  
 Erie, PA  
 Masters of Medical Education, 2019

2009-2012

**Employment**

Associate Program Director Allergy Immunology Fellowship  
 University Hospitals of Cleveland, Case Western Reserve University

Partner and Physician  
 Allergy Immunology Associates Inc.

Research Partner Medical Director  
 Ohio Clinical Research Associates, LLC.

DO Osteopathic Medicine

BS Marketing and Finance

**Training**

Fellow Allergy and Immunology

Resident Pediatrics

SUSAN MARIE RATAY, DO  
 AOA/ACOFF#: 184475  
 Ohio State License # 34.011399

**Personal Address**

7061 Cobblestone Lane  
 Mentor, Ohio 44060  
 (330)990-5423 (cell)  
 Susan.borisuk@med.lecom.edu; Susan.Ratay@UHHospitals.org

**Work Addresses**

Administrative/ Medical Education  
 University Hospitals Regional Hospitals  
 27100 Chardon Road  
 Richmond Heights, Ohio 44143  
 (440) 585-4821  
 Hrs: Thursday & Friday 7am-4pm

**Family Practice Provider**

University Hospitals Ashtabula Medical Center  
 3315 North Ridge Road East  
 Suite #200  
 Ashtabula, Ohio 44004  
 (440)964-3733  
 Hrs: Monday 7am-5pm; Tuesday 8am-4pm; 1<sup>st</sup>/3<sup>rd</sup>/5<sup>th</sup> Wednesday 7am-7pm

**Education**

Family Practice Residency at University Hospitals Richmond Heights, September 2015  
 Lake Erie College of Osteopathic Medicine, Master's in Medical Education, December 2016  
 Arizona Center for Integrative Medicine, Integrative Medicine in Residency training, June 2015  
 Lake Erie College of Osteopathic Medicine, D.O., June 2012  
 Miami University of Ohio, M.A.T. in Science Education (Earth Science, Life Science and Chemistry), August 2008  
 Miami University of Ohio, B.A. in Chemistry, August 2008

**Christopher Tangen, D.O.**

**WORK**

27155 Chardon Rd. Suite 106  
 Richmond Heights, OH 44143  
 (440) 585-7146  
 Christopher.Tangen@UHHospitals.org

**HOME**

8231 Beacon Place  
 Cleveland, OH 44103  
 (217) 840-4772 (cell)  
 christangen@gmail.com

**EDUCATION**

**Des Moines University, Des Moines, Iowa**  
 Doctor of Osteopathic Medicine  
 August 2001 through May 2005

**Miami University, Oxford, Ohio**  
 B.A. in Microbiology  
 August 1997 through May 2001

**POSTGRADUATE EDUCATION**

**Primary Care Sports Medicine Fellowship**  
 Two-year ACGME/AOA dually accredited program  
 University Hospitals Case Medical Center/ Rainbow Babies and Children's Hospital  
 Cleveland, Ohio  
 July 2008 through June 2010

**Family Medicine Internship / Residency**  
 University Hospitals Case Medical Center  
 Cleveland, Ohio  
 June 2005 through June 2008

**CLINICAL EXPERIENCE**

**Associate Medical Team Physician, Cleveland Browns**  
 Cleveland, OH  
 May 2014- Current

**Medical Director, Sports Medicine**  
 University Hospitals Regional Hospitals  
 Richmond Heights and Bedford, OH  
 Sept 2010- Current

OSTEOPATHIC PROGRAM PERSONNEL

# OSTEOPATHIC PROGRAM PERSONNEL 3.A.

## HOW DOES THE PROGRAM VERIFY THAT OSTEOPATHIC FACULTY MEMBERS PARTICIPATE IN A REQUIRED FACULTY DEVELOPMENT PROGRAM THAT INCLUDES OPP?

- ▶ UH-Lake Erie Consortium for Osteopathic Medical Training ([LECOMT](#)) partnership
  - ▶ Faculty development series centered around “Teaching and Learning” and “Scholarly Activity”
  - ▶ Integration of OPP
- ▶ Cleveland Academy of Osteopathic Medicine (CAOM) Annual OMT Seminar.
- ▶ American College of Osteopathic Pediatricians (ACOP) program integration of OPP/OMT in the care of pediatric patient ([POMT](#))
- ▶ [Scholar Teacher](#) videos developed to enhance OPP instruction
- ▶ Mid-Western University Costin Institute Scholars Program application of OPP in training programs (Dr. Jhaveri)
- ▶ [Masters of Medical Education](#) program via LECOM to develop a greater understanding of curriculum and teaching (Dr. Hostoffer).

## LYMPHATICS AND THE IMMUNE SYSTEM

### ENHANCING THE IMMUNE SYSTEM WITH OMT

ROBERT HOSTOFFER, DO, LHD, FACOP, FAAP, FCCP, FACOI  
PROGRAM DIRECTOR, ALLERGY /IMMUNOLOGY FELLOWSHIP, UNIVERSITY HOSPITALS, CLEVELAND MEDICAL CENTER

DEVI JHAVERI, DO  
ASSOCIATE PROGRAM DIRECTOR OF ALLERGY/IMMUNOLOGY FELLOWSHIP

### BENEFICIAL EFFECTS TO IMMUNE SYSTEM

- OMT theoretically improves immune system
- Lymphatic Pump techniques
- Increased basophil count



February 1998 98 | 2

**Lymphatic pump techniques increase percent of circulating basophils**

- ▶ Intravital experiments with magnetic resonance imaging using this new technology
- ▶ The medical school curriculum for the 21st century
- ▶ Three essential key presenting in hypertension
- ▶ Use of transcranial color Doppler ultrasound to diagnose some forms

### MILLER'S THORACIC PUMP



- Patient supine with knees flexed
- Turn patient's head away
- Physicians hands below the clavicles
- Hands provide pressure that is equally distributed over the upper chest
- Physician applies a downward and caudally in a rhythmic manner

# Perennial Allergic Rhinosinusitis and OMM

Robert Hostoffer, DO  
Devi Jhaveri, DO

## Pediatric Chapman Reflexes



- American College of Osteopathic Pediatricians
- Robert Hostoffer, DO, FACOP, FAAP

edited by  
Eric Hegybeli, DO, FACOP

questionnaires by  
Michael Rowane, DO, MS, FAAFP, FA

### Chapman Reflexes Ear, Eye, Nose, Throat and Neck: Anterior



- Middle Ear: Superior Medial Clavicle
- Nasal Sinus: Inferior Medial Clavicle
- Pharynx: inferior sternoclavicular joint
- Tonsils: 1<sup>st</sup> ICS, just lateral to the sternum
- Retina, Conjunctiva: Lateral upper humerus
- Neck: Medial upper humerus

## Innervation Table

Organ/System	Parasympathetic	Sympathetic	Ant. Chapman's	Post. Chapman's
EENT	Cr Nerves (III, VII, IX, X)	T1-T4	T1-4, 2 <sup>nd</sup> ICS	Suboccipital
Heart	Vagus (CN X)	T1-T4	T1-4 on L,	T3 sp process
Respiratory	Vagus (CN X)	T2-T7	T2-3 3 <sup>rd</sup> & 4 <sup>th</sup> ICS	T3-5 sp process
Esophagus	Vagus (CN X)	T2-T8	---	---
Foregut	Vagus (CN X)	T5-T9 (Greater Splanchnic)	---	---
Stomach	Vagus (CN X)	T5-T9 (Greater Splanchnic)	5 <sup>th</sup> -6 <sup>th</sup> ICS on	T6-7 on L
Liver	Vagus (CN X)	T5-T9 (Greater Splanchnic)	Rib 5 on R	T5-6
Gallbladder	Vagus (CN X)	T5-T9 (Greater Splanchnic)	Rib 6 on R	T6
Spleen	Vagus (CN X)	T5-T9 (Greater Splanchnic)	Rib 7 on L	T7
Pancreas	Vagus (CN X)	T5-T9 (Greater Splanchnic), T9-T12 (Lesser Splanchnic)	Rib 7 on R	T7
Midgut	Vagus (CN X)	Thoracic Splanchnics (Lesser)	---	---
Small Intestine	Vagus (CN X)	T9-T11 (Lesser Splanchnic)	Ribs 9-11	T8-10
Appendix		T12	Tip of 12 <sup>th</sup> Rib	T11-12 on R
Hindgut	Pelvic Splanchnics (S2-4)	Lumbar (Least) Splanchnics	---	---
Ascending Colon	Vagus (CN X)	T9-T11 (Lesser Splanchnic)	R Femur @ hip	T10-11
Transverse Colon	Vagus (CN X)	T9-T11 (Lesser Splanchnic)	Near Knees	---
Descending Colon	Pelvic Splanchnic (S2-4)	Least Splanchnic	L Femur @ hip	T12-L2
Colon & Rectum	Pelvic Splanchnics (S2-4)	T8-L2	---	---

- ▶ Basic Teaching Principals.mov
- ▶ Mini Mod ASST OVERVIEW.mov
- ▶ Mini Mod TREAT OVERVIEW.mov
- ▶ Panel ACGME Recognition Curric
- ▶ Scholar Series Introduction.mov

- ▶ Mini Mod Lab 3 Asst Up Thx Cage.mo
- ▶ Mini Mod Lab 4 Asst Low Thx Cage....
- ▶ Skill Prompt 3 Asst Up Thx Cage.mov
- ▶ Skill Prompt 4 Asst Low Thx Cage.mov

- ▶ Mini Mod Intro. and Case Description.
- ▶ Mini Mod Labs 1-8; CASE SUMMARY..

# SCHOLAR

## PILOT AND VALIDATION STUDIES

Your Guide to Research Development

# SCHOLAR TEACHER

- ▶ Mini Mod Lab 5 Tx Up Ex Rib.mov
- ▶ Mini Mod Lab 6 Tx Low Eh Rib.mo
- ▶ Mini Mod Lab 7 Tx Up Inh Rib.mov
- ▶ Mini Mod Lab 8 Tx Low Inh Rib.mc
- ▶ Skill Prompt 5 Tx Up Ex Rib.mov

- ▶ Vignette #1 Landmarks.mov
- ▶ Vignette #2 Diag Rib Dysfunction.mov
- ▶ Vignette #3 Exhalation Rib Dysfuncti...
- ▶ Vignette #4 Inhalation Rib Dysfuncti...

# Lake Erie College of Osteopathic Medicine



*Be it known that the Trustees, President, and Faculty  
by virtue of the authority granted by the Commonwealth of Pennsylvania  
have conferred upon*

**Robert W. Hostoffer, Jr., D.O.**

*the degree of*

## Master of Science in Medical Education

*in recognition of the satisfactory fulfillment of the requirements*

*In Witness Whereof, we have hereunto affixed  
and subscribed our names this twenty-sixth*

Marlene D. Mosco  
Chair of the Board of Trustees

# MIDWESTERN UNIVERSITY

CHICAGO COLLEGE OF OSTEOPATHIC MEDICINE

This is to certify that

**Devi Jhaveri, D.O., FAAP, FACOP**

Has satisfactorily completed the requirements of the  
**Costin Institute for Osteopathic Medical Educators**

And as such is deemed a  
**Costin Scholar**

The scholar has demonstrated ability to teach, research and lead  
with distinction and has an understanding of the educational process.  
The scholar is committed to improving medical education at all levels.



September 17, 2016

  
Kathleen H. Goepfinger, Ph.D.  
President & CEO  
Karen J. Nichols, D.O., M.A., MACOI  
Dean, Chicago College of Osteopathic Medicine  
Fran Daly, Ph.D.  
Director, Costin Institute



## OSTEOPATHIC PROGRAM PERSONNEL 3.B.

---

### HOW DOES THE PROGRAM VERIFY THAT OSTEOPATHIC FACULTY MEMBERS PARTICIPATE IN A REQUIRED FACULTY DEVELOPMENT PROGRAM THAT INCLUDES ONGOING EDUCATION ADDRESSING EVALUATION AND ASSESSMENT IN COMPETENCY-BASED MEDICAL EDUCATION?

- ▶ Active participation of faculty in organized clinical **discussions, rounds, didactics, and conferences-workshops** by:
  - ▶ Evaluating **OMM/OPP competency** throughout 2 years of Allergy/Immunology Fellowship.
  - ▶ Supervising **OPP/OMT application in clinical care** of patients, especially in ambulatory A/I training site.
- ▶ Faculty facilitators for **OPP/OMT focused educational offerings**, including:
  - ▶ Monthly Osteopathic A/I **Journal Club**
  - ▶ Quarterly **POMT Modules**
  - ▶ Osteopathic-focused **scholarly projects**
  - ▶ **Scholar Series**, designed to develop scholarly environments and meet fellows' program research requirements:
    - ▶ **Scholar Specific** to assist w/ **case presentation**
    - ▶ **Scholar Teacher** for use in **ACGME Osteopathic Recognition**
- ▶ **UH Regional Hospitals Osteopathic-focused faculty** facilitate **OPP/OMT focused educational offerings**, including:
  - ▶ **UH ONMM Grand Rounds Series**
  - ▶ **Monthly Osteopathic Neuromusculoskeletal Medicine (ONMM) Core Faculty Didactic-Workshop Series**

**OSTEOPATHIC COMPETENCY VALIDATION ASSESSMENT: ALLERGY-IMMUNOLOGY**

Fellow Name:  
 Start Date of Fellowship:  
 Graduation Date of Fellowship:  
 Final Procedure Competency Assessment Date:

**Part 1-Describe specific concepts on OMT Technique types and 5 Models of Osteopathic Care:**

Demonstrate OMT Technique / Concept	1st	2nd	3rd	4th	Competency (Attending Initials)
Soft Tissue	X			X	
Muscle Energy	X			X	
Mobilization Release	X			X	
Counterstrain		X		X	
HVLA		X		X	
OCMM-C4			X	X	
5 Core Models		X		X	

**Part 2-Identify sites of somatic dysfunction to establish diagnosis and demonstrate ability to treat:**

Diagnosis & Procedure / OMT Technique	1st	2nd	3rd	4th	Competency (Attending Initials)
HEAVY					
Ocular Release	X			X	
Sinus Massage	X			X	
Gastric Distention	X			X	
Ear	X			X	
THORACIC REGION					
Thoracic Inlet	X			X	
Muscle Energy/HVLA					
Ribs	X			X	
Thoracic HVLA		X		X	
Inhalation Ribs		X		X	
Exhalation Ribs		X		X	
Diaphragm		X		X	
OTHER					
Lymphatic Pump		X		X	
OCMM-C4			X	X	
OSCE		X	X		

OSTEOPATHIC PROGRAM PERSONNEL 3.B.

**University Hospitals FACULTY EVALUATION OF FELLOWSHIP (OSTEOPATHIC) PROGRAM PERFORMANCE**

Fellowship Program: <b>University Hospitals Adult &amp; Pediatric Allergy/Immunology Fellowship (Osteopathic) Program</b>	The Fellowship Program's overall performance was: <u>above</u> <u>at</u> <u>below</u> the level expected for Osteopathic Recognition.
Year of Evaluation: 20__-20__	<b>Program Director Signature:</b> Date:
Evaluator:	<b>Associate Program Director Signature:</b> Date:

**DIRECTIONS:** ACGME Osteopathic Recognition training programs require Osteopathic Fellowship Programs to develop Core Competencies that integrate Osteopathic Principles and Practices during the course of training. Please check the boxes that best represent the frequency with which this program demonstrated the described the collective knowledge/skills/attitudes/during this academic year.

<b>COMPETENCY: OSTEOPATHIC CONCEPTS</b>	Infrequently <25%	Sometimes 25-49%	Often 50-75%	Most Often 75-95%	Always >95%	Unable to Evaluate
<b>Fellowship must teach the use of therapeutic osteopathic manipulation approaches skillfully.</b>						
Teaches ability to understand and perform structural examinations						
Integrates findings of osteopathic examination in diagnoses and treatment plan						
Teaches holistic patient-centered care in planning, testing, therapy, and prevention						
Teaches understanding of the somato-visceral relationship and the role of the musculoskeletal system in disease.						
<b>Comments</b>						

<b>COMPETENCY: OSTEOPATHIC MEDICAL KNOWLEDGE</b>	Infrequently <25%	Sometimes 25-49%	Often 50-75%	Most Often 75-95%	Always >95%	Unable to Evaluate
<b>Fellowship must teach knowledge of established and evolving biomedical, clinical and epidemiological sciences and application of this knowledge to patient care.</b>						

**Contribution of Osteopathic Medicine to Care of Patients with Chronic Wounds** *J Am Osteopath Assoc.* 2011; 111(9):538-542

Dana C. Anglund, DO  
 Millicent King Channell, DO

\* Department of Osteopathic Manipulative Medicine at the University of Medicine and Dentistry - School of Osteopathic Medicine in Stratford

**Objective:** To review the state of research regarding lymphatic OMT techniques; provide an overview of the wound-healing process including research that demonstrates effects of lymphatics on wound healing

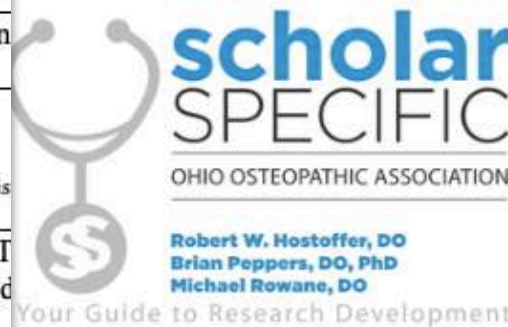
**Lymphatics in Osteopathic Medical Literature**

- 1) Dr. Still viewed lymphatics as a “fountain of life-giving waters provided by nature to wash away impurities as they accumulate in the bodies”
- 2) 1910- OMT enhanced immune function in acute infections like influenza epidemic
- 3) Hypothesized OMT aided in removal of waste products, lymph and healing, absorption/ process of toxins, and stimulation of response

**Modern Research**

- 1) Lymphatic flow is directly enhanced by OMT
  - a. Dery et al (2000): Enhanced lymphatic flow with thoracic pump in murine model
  - b. Knott et al (2005): Thoracic and abdominal pump increase lymph flow in thoracic duct of dog(P<.05)
  - c. Downey et al (2008): Abdominal pump increase lymph flow in thoracic duct of dog
- 2) Lymphatic OMT influence the immune system by mobilizing immune cells and enhancing immunity
  - a. Measel (1982): Use of thoracic pump enhanced B-cell response in healthy male medical students who were immunized with pneumococcal polysaccharide
  - b. Mesina et al (1998): Transient increase in basophil leukocytes in healthy male medical students after pectoral traction and splenic pump
  - c. Jackson et al (1998): Participants who underwent thoracic splenic pump OMT in healthy individuals demonstrated consistently higher titers of hep B vaccine than control

**Scholar Specific**



Scholar work can be developed.

**Session 3: Osteopathic Recognition Curriculum (48:22 minutes)**

Scholar Series presenters discuss *Implementing an Innovative ACGME Osteopathic Curriculum* developed utilizing options that are already available to the teaching program. Our panel includes program director, dean, young faculty and curriculum chair.

Scholar Specific was released in December 2018. New workshops were added in Fall 2018.

**Session Titles**

**Session 1: Case Presentation (1hour)**

**Session 2: Capstone for Osteopathic Education**  
 This video compares osteopathic recognition scenarios that mimic real life medical scenarios that clinical observations are made. From

Access to the SCHOLAR SPECIFIC video series is available to all members of the Ohio Osteopathic Association.

Types of Rhinitis	
Types of Allergic Rhinitis	Characteristics
Allergic Rhinitis with Seasonal Variations	IgE-mediated reaction to either seasonal or environmental aeroallergens
Perennial Allergic Rhinitis with Seasonal Variation	Perennial environmental aeroallergens include animal dander, cockroaches, dust mites, molds, and pollen where pollen is geographically perennial
Perennial Allergic Rhinitis without Seasonal Variation	
Episodic Allergic Rhinitis after Specific Aeroallergen Exposure	IgE-mediated reaction to sporadic/episodic exposure to aeroallergens
Types of Nonallergic Rhinitis	Characteristics
Vasomotor Rhinitis	Chronic symptoms without immunologic or infectious origins
Infectious Rhinitis	Acute or chronic symptoms due to either virus or bacteria
Occupational Rhinitis	Rhinitis due to airborne substances in workplace

**Title: Rhinitis: The Osteopathic Modular Approach**

Authors: Shan Shan Wu, D.O.,<sup>1</sup> Kelsey Graven, D.O.,<sup>2</sup> Michelle Sergi, OMS IV,<sup>3</sup> Robert Hostoffer, D.O.<sup>1,3,4</sup>

<sup>1</sup>Allergy/Immunology Fellowship, Department of Pulmonary and Critical Care Medicine, University Hospitals-Cleveland Medical Center, 11100 Euclid Ave, Cleveland, Ohio 44106

<sup>2</sup>University Hospitals-St. John Medical Center, 29000 Center Ridge Road, Westlake, Ohio, 44145

<sup>3</sup>Ohio University Heritage College of Osteopathic Medicine, Cleveland, 4180 Warrensville Center Road, Warrensville Heights, Ohio 44122

<sup>4</sup>Allergy/Immunology Associates Inc., 5915 Landerbrook Dr., Ste 110, Mayfield Heights, Ohio 44124

Corresponding author:  
 Shan Shan Wu, D.O.  
 Preferred Mailing Address: 5915 Landerbrook Dr., Ste 110, Mayfield Heights, OH 44124  
 Preferred Email Address: ssm815@gmail.com  
 Office Telephone Number: 216-381-3333  
 Fax Number: 216-381-3002

Authors' Email Addresses:  
 Kelsey Graven, D.O.  
 kelsey.graven@uhospitals.org



# Osteopathic manipulative treatment (OMT) for lower urinary tract symptoms (LUTS) in women

Helge Franke, D.O. (Europe), M.Sc.\*, Klaus Hoesele, D.O. (Europe), M.Sc.

*Institute for Osteopathic Studies, Siegen, Germany*

Received 30 January 2012; received in revised form 12 April 2012; accepted 29 April 2012



## UHOC Osteopathic Conference

Management Services Center – Media Room

3605 Warrensville Center Road Shaker Heights, Ohio 44122

Friday, November 2, 2018

**8:00am – 8:15am:** Osteopathic Lecture presented by: *Edward Craft, DO, Family Medicine Physician, University Hospitals, St. John Medical Center, Westlake, Ohio*

**8:30am – 9:00am:** Research during Residency & Fellowship, *Janet Peachey, Clinical Research Project Coordinator, University Hospitals, Regional Hospitals*

**9:15am – 10:30am:** Osteopathic Neuromusculoskeletal Medicine Grand Rounds Series: Viscerosomatics in a patient with ESRD and ACS, UH Regionals Internal Medicine Residency PGY-3's: *Kristen Alley, DO, Anish Bhakta, DO, James Cappello, DO, Andrew Chin, DO, Kyle Cleveland, DO, Garbat Gill, DO, Benita Mathai, DO, Peter Oley, DO, Sheha Patel, DO, Tarun Patel, DO, Wesley Zhen, DO, James Cox, DO, Ryan Shilian, DO*

**10:30am – 10:50am:** Journal Club, OMT on Post-Operative Ileus, *Andrea Fischione, DO, Asadeh Zangeneh, DO, Gary Stocker, OMS-3, Patrick Russell, OMS-3*

**10:50am-11:10am:** Journal Club, Qualitative Evaluation of OMT in a Patient with GERD: A Brief Report. *Gregory Bascua, DO, Jennifer Bastick, DO, Hoana Phuna, DO*

**Summary Background:** Because of its prevalence and impact on women's well-being, and its high financial costs, female LUTS is an important health problem that requires serious attention from health professionals.

**Objective:** The objective of this review was to determine the clinical effects of osteopathic treatment on female lower urinary tract disorders.

**Data sources:** A systematic literature search was performed in May 2011 in the electronic databases Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, EMBASE, CINAHL, Pro, OSTMED-DR, OSTEOPATHIC WEBRESEARCH and databases of ongoing trials. A manual search in reference lists and a personal communication with experts in the field of osteopathy is also conducted to identify additional studies.

**Study selection:** Only randomized clinical studies (RCT) or controlled clinical studies (CCT) were included. Inclusion criteria of the participants were female, at least 18 years old and diagnosed female urinary tract disorder. Exclusion criteria were neurologic disorders, tumors, urinary tract infections or antibiotic treatment, and pregnancy.

**Data extraction:** Two review authors independently extracted the data of the studies using standardized data extraction form. The updated Cochrane Risk of bias tool from 2011 was used to assess the methodological quality.

**Results:** The quantitative analysis shows a statistically significant and clinically relevant improvement when the osteopathic intervention was compared to an untreated group. Two studies which compare OMT with the pelvic floor muscle training as a reference treatment document almost the same therapeutic effect.

## OSTEOPATHIC PROGRAM PERSONNEL 4.

---

LIST THE CORE OSTEOPATHIC FACULTY MEMBERS IDENTIFIED ON THE ADS FACULTY ROSTER.

- ▶ Dr. Robert Hostoffer, DO, Program Director
- ▶ Devi Jhaveri, DO, Associate Program Director
- ▶ Non-ADS Core faculty of UH Regional Hospitals
  - ▶ [Susan M. Ratay, DO, MS](#)
  - ▶ [Robert Truax, DO](#)
  - ▶ [Christopher L. Tangen, DO](#)
- ▶ [LECOMT](#) faculty resources to support training in OPP/OMM

SUSAN MARIE RATAY, DO  
 AOA/ACOF# 184475  
 Ohio State License # 34.011399

**Personal Address**

7061 Cobblestone Lane  
 Mentor, Ohio 44060  
 (330)990-5423 (cell)  
 Susan.borisuk@med.lecom.edu; Susan.Ratay@UHHospitals.org

**Work Addresses**

Administrative/ Medical Education  
 University Hospitals Regional Hospitals  
 27100 Chardon Road  
 Richmond Heights, Ohio 44143

Curriculum Vitae for Robert Bradley Truax, DO

**Personal**

Birth date: 31 August 1971  
 Childhood home: Chagrin Falls, OH  
 Current Address: 17730 Lost Trail, Chagrin Falls, OH 44023  
 E-mail: robert.truax@uhhospitals.org  
 Phone: 216-844-6533  
 Cell: 440-567-9567

**Current Job Description**

- 1) Associate Professor, Department of Osteopathic Manipulative Medicine, Ohio University Heritage College of Osteopathic Medicine (Cleveland), affiliated with the Cleveland Clinic. Teaching 1<sup>st</sup> and 2<sup>nd</sup> year Osteopathic medical students the principles of Osteopathic Medicine and Osteopathic Manipulative Treatments
- 2) Director, Osteopathic Sports Rehabilitation Clinic located in the Connor Integrative Health Network of the University Hospitals Case Medical Center

**Christopher Tangen, D.O.**

**WORK**  
 27155 Chardon Rd. Suite 106  
 Richmond Heights, OH 44143  
 (440) 585-7146  
 Christopher.Tangen@UHHospitals.org

**HOME**  
 8231 Beacon Place  
 Cleveland, OH 44103  
 (217) 840-4772 (cell)  
 christangen@gmail.com

Chagrin Falls, OH  
 D.O. – Psychology  
 Knoxville, MO: D.O. – Doctor of

**EDUCATION**

**Des Moines University, Des Moines, Iowa**  
 Doctor of Osteopathic Medicine  
 August 2001 through May 2005

**Miami University, Oxford, Ohio**  
 B.A. in Microbiology  
 August 1997 through May 2001

**POSTGRADUATE EDUCATION**

**Primary Care Sports Medicine Fellowship**  
 Two-year ACGME/AOA dually accredited program  
 University Hospitals Case Medical Center/ Rainbow Babies and Children's Hospital  
 Cleveland, Ohio  
 July 2008 through June 2010

**Family Medicine Internship / Residency**  
 University Hospitals Case Medical Center  
 Cleveland, Ohio  
 June 2005 through June 2008

**CLINICAL EXPERIENCE**

**Associate Medical Team Physician, Cleveland Browns**  
 Cleveland, OH  
 May 2014- Current

**Medical Director, Sports Medicine**  
 University Hospitals Regional Hospitals  
 Richmond Heights and Bedford, OH  
 Sept 2010- Current

May 2005  
 30, 2006

Medicine: Assisted in  
 patients in the OMM clinic (July

at Bragg, NC (1999-2000)  
 at Bragg, NC (2000-2002)  
 OH (July 2006 – June 2007)

it)

DEVI SHARVETI D.O.

Address: 5915 Landerbrook Dr. #110

**CURRICULUM VITAE**

Robert William Hostoffer, Jr., D.O.

Home: 5536 Prestwick Ln.  
 Highland Hts., Oh 44143

Business: Allergy Immunology Associates, Inc.  
 161 South Green Road  
 South Euclid, Ohio 44121

August 31, 1959

Pleasant, PA

Karen Louise  
 Children: Alexander David, Vincent Michael,  
 Thomas James, Sarah Irene, Zachary Thomas

Mary's Preparatory  
 Orchard Lake, Michigan, 1977

Carroll University  
 University Heights, OH  
 B.S. (Biology), 1981

Philadelphia College of Osteopathic Medicine  
 Philadelphia, PA  
 D.O., 1985

Lake Erie College of Osteopathic Medicine  
 Erie, PA  
 Masters of Medical Education, 2019

Resident Pediatrics

Cleveland, OH

Mayfield Heights, OH

Mayfield Heights, OH

Ohio University College of  
 Osteopathic Medicine

University of Illinois

University Hospitals  
 Medical Center

Rainbow Babies & C

OSTEOPATHIC PROGRAM PERSONNEL

## OSTEOPATHIC PROGRAM PERSONNEL 5A.

ARE ANY OSTEOPATHIC FACULTY MEMBERS, INCLUDING CORE OSTEOPATHIC FACULTY MEMBERS AND THE DIRECTOR OF OSTEOPATHIC EDUCATION, SHARED WITH ANOTHER PROGRAM(S) WITH OSTEOPATHIC RECOGNITION? ARE ANY OSTEOPATHIC FACULTY MEMBERS, INCLUDING CORE OSTEOPATHIC FACULTY MEMBERS AND THE DIRECTOR OF OSTEOPATHIC EDUCATION, SHARED WITH ANOTHER PROGRAM(S) WITH OSTEOPATHIC RECOGNITION?

► Yes.

A. LIST THE OSTEOPATHIC FACULTY MEMBERS (INCLUDING THE CORE FACULTY MEMBERS AND DIRECTOR OF OSTEOPATHIC EDUCATION) SHARED WITH OTHER PROGRAMS WITH OSTEOPATHIC RECOGNITION, AND LIST THE APPLICABLE PROGRAM(S).

Osteopathic Faculty Member	Program and Sponsoring Institution
Susan Ratay, DO, MS	Director of Osteopathic Education, University Hospitals Osteopathic Consortium
Christopher Tangen, DO	Program Director, Traditional Rotating Internship, Program Director, ACGME-accredited Transitional Year Program, Medical Director, Sports Medicine, University Hospitals Regional Hospitals
Robert Truax, DO	Clinical Faculty and Assistant Professor, Family Medicine Residency Program, Director, Osteopathic Sports Rehabilitation Clinic, Connor Integrative Health Network, University Hospitals Cleveland Medical Center

## OSTEOPATHIC PROGRAM PERSONNEL 5B.

---

ARE ANY OSTEOPATHIC FACULTY MEMBERS, INCLUDING CORE OSTEOPATHIC FACULTY MEMBERS AND THE DIRECTOR OF OSTEOPATHIC EDUCATION, SHARED WITH ANOTHER PROGRAM(S) WITH OSTEOPATHIC RECOGNITION? ARE ANY OSTEOPATHIC FACULTY MEMBERS, INCLUDING CORE OSTEOPATHIC FACULTY MEMBERS AND THE DIRECTOR OF OSTEOPATHIC EDUCATION, SHARED WITH ANOTHER PROGRAM(S) WITH OSTEOPATHIC RECOGNITION?

▶ Yes.

B. DESCRIBE HOW THE OSTEOPATHIC FACULTY MEMBERS LISTED IN THE TABLE ABOVE WILL HAVE THEIR TIME DIVIDED BETWEEN EACH PROGRAM AND PARTICIPATING SITE WITH OVERSIGHT MAINTAINED, SO AS NOT TO COMPROMISE THE OSTEOPATHIC EDUCATION OF THE DESIGNATED OSTEOPATHIC RESIDENTS IN THESE PROGRAMS.

- ▶ The faculty listed participate in various **workshops, grand rounds, journal clubs, other didactics, and scholarly work** that are scheduled throughout the year.
- ▶ In some cases, these activities are shared by other services but do not conflict.



## OSTEOPATHIC EDUCATION PROGRAM 6.A.

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO A. PATIENT CARE AND PROCEDURAL SKILLS.

- ▶ Teaching Methods: Demonstrate patient care skills to:
  - ▶ Recognize **entire clinical context**. Use relationship b/w structure and function.
  - ▶ **Effectively treat** and provide medical care that incorporates osteopathic philosophy.
  - ▶ Demonstrate caring attitude, **mindful** of cultural sensitivities and patient apprehension.
  - ▶ Diagnose and **document somatic dysfunction** and its treatment.
  - ▶ Complete an **osteopathic structural exam**. Direct and indirect OMT techniques: HV/LA, articulatory, ME, SCS, MFR, Still Technique and/or OCMM, etc.
  - ▶ Apply OMT in patient care setting that will benefit allergic patient.
  - ▶ Provide health care services expected of an allergy/immunologist that incorporates patient care **consistent with osteopathic philosophy**.



## OSTEOPATHIC EDUCATION PROGRAM 6.A (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO A. PATIENT CARE AND PROCEDURAL SKILLS (CONTINUED).

- ▶ Teaching Methods: Demonstrate ability to:
  - ▶ Incorporate literature and research that integrate osteopathic tenets into clinical decision-making.
  - ▶ Critically evaluate methods of osteopathic clinical practice, integrate evidence-based OPP into patient care, show understanding of research methods, and improve patient care practices as related to field of A/I.
  - ▶ Treat patients in manner consistent w/ most up-to-date information on diagnostic and therapeutic effectiveness related to OPP.
  - ▶ Perform self-evaluations of osteopathic practice patterns and practice-based improvement activities using systematic methodology.
  - ▶ Adult and Pediatric Allergy and Immunology Fellowship 2019-2020 Manual + Quick Reference
  - ▶ Ohio University Heritage College of Osteopathic Medicine's OMM Quick Card: A publication of the CORE Osteopathic Principles and Practices Committee

The Hostoffer Writing Commandments

- There are no days or nights off.
- Have intense commitment to the project.
- Communicate level of progress with project frequently.
- Don't tell me. Show me.
- Be deadline driven.
- Critical and independent thinking is expected.
- Pay attention to detail in terms of the project.
- If any of the rules are broken, the project will be given to someone else.
- Do not assume any data or instruction.
- No question is unreasonable.
- Keep thoughts of the project singular and to the point without deviation.
- When you need help, ask. DO NOT STOP.



DR. ANDREW TAYLOR STILL,  
FOUNDER OF OSTEOPATHY

Out Rotations/Primary Attendings:  
Pediatric and Adult Rheumatology/ Various (MetroHealth)

Vocal Cord Dysfunction (VCD)/ Dr. Nicole Maronian (UH CMC)  
Flow Cytometry/ Dr. Howard Meyerson (UH CMC)  
Adult Pulmonary/ Dr. Robert Schiltz (UH CMC)  
Adult Ear, Nose, and Throat (ENT)/ Dr. Kenneth Rodriguez (UH CMC) Peds  
ENT/ Dr. Otteson, Dr. Shah (UH CMC Bolwell Ste 3300A)  
Peds Pulm/ Dr. Kate Wessell (UH RBCH)  
Peds Dermatology/ Dr. Lisa Gellis (Metro Health)  
Adult Derm/ Various (UH CMC)

Schedule: Curriculum Map

YEAR	1	2
TIME	8:00AM	8:30AM
M	Journal Club	Journal Club
T	Cluster of Differentiation/ Interleukin (CD/IL) Club	Practice Parameters
W	Dr. Hostoffer's "one-liners"/Morbidity & Mortality (M&M)	Board Review
R	Middleton's Allergy reading	Middleton's Allergy reading
F	Dr. Hostoffer's Lectures	Dr. Hostoffer's Lectures

YEAR 1	JULY	DECEMBER	JUNE
Clinicals	Allergy practice skills Allergy office	Learning limits of practice Out rotations	
Logs	Finish patient logs (first 6 months) Finish procedure logs (first 6 months)		
Didactics	CD/IL Club	Practice parameters	
	Middleton's Allergy		
	One-liners		
	Formal lectures		
	Journal Club		
	OMM lecture (/month)		
	Osteopathic lecture series (9)		
	A/1/Pulmonary conferences (every other month)		
Asynchronous learning	ACAACOLA ( <a href="https://www.youtube.com/user/ACAACOLA/videos?disable_polymer=1">https://www.youtube.com/user/ACAACOLA/videos?disable_polymer=1</a> ) Scholar Series ( <a href="http://www.oanet.org/aws/OOSA/pt/sp/scholar7">http://www.oanet.org/aws/OOSA/pt/sp/scholar7</a> )		
Workshops	Anaphylaxis		
	Weed walk		
	Pollen course		
	Mixing course		

# MANUAL + QUICK REFERENCE

Osteopathic Component

Diagnosis Codes (ICD-10):

- m99.00 segmental and somatic dysfunction of head
- m99.01 segmental and somatic dysfunction of neck
- m99.02 segmental and somatic dysfunction of thorax
- m99.03 segmental and somatic dysfunction of lumbar
- m99.04 segmental and somatic dysfunction of sacrum
- m99.05 segmental and somatic dysfunction of pelvis
- m99.06 segmental and somatic dysfunction of upper extrem
- m99.07 segmental and somatic dysfunction of lower extrem
- m99.08 segmental and somatic dysfunction of ribs
- m99.09 segmental and somatic dysfunction of abdomen/oth

Procedure Codes:

- 98925 (1-2 regions)
- 98926 (3-4 regions)

Organ/System	Parasympathetic	Sympathetic	Ant. Chapman's	Post Chapman's
EENT	Cr Nerves (III, VII, IX, X)	T1-T4	T1-4, 2nd	Suboccipital
Heart	Vagus (CN X)	T1-T4	T1-4 on L	T3 sp process
Respiratory	Vagus (CN X)	T2-T7	3rd & 4th ICS	T3-5 sp process
Esophagus	Vagus (CN X)	T2-T8	---	---
Foregut	Vagus (CN X)	T5-T9 (Greater Splanchnic)	---	---
Stomach	Vagus (CN X)	T5-T9 (Greater Splanchnic)	5th-6th ICS	T6-7 on L
Liver	Vagus (CN X)	T5-T9 (Greater Splanchnic)	Rib 5 on R	T5-6
Spleen	Vagus (CN X)	T5-T9 (Greater Splanchnic)	Rib 6 on R	T6
Pancreas	Vagus (CN X)	T5-T9 (Greater Splanchnic)	Rib 7 on L	T7
Midgut	Vagus (CN X)	Thoracic Splanchnics (Lesser)	Rib 7 on R	T7
Small Intestine	Vagus (CN X)	T9-T11 (Lesser Splanchnics)	---	---
Appendix		T12	Tip of 12th Rib	T11-12 on R

## OSTEOPATHIC EDUCATION PROGRAM 6.A (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO A. PATIENT CARE AND PROCEDURAL SKILLS (CONTINUED).

- ▶ Assessment Methods
  - ▶ Complement bi-annual review w/...
    - ▶ Direct observation
    - ▶ Chart review
    - ▶ Procedure logs
  - ▶ Mid-year and end-of-year evaluations
    - ▶ Structural examinations
    - ▶ OMT under supervision of osteopathic attending physician

## OSTEOPATHIC EDUCATION PROGRAM 6.B.

---

**LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO B. MEDICAL KNOWLEDGE.**

- ▶ Teaching Methods: Understand fundamental concepts involving OPP at beginning of training program. Over course of Fellowship, gain greater depth of medical knowledge in integrating osteopathic concepts in A/I.
  - ▶ Demonstrate ability to:
    - ▶ Apply integrative knowledge of accepted standards of osteopathic clinical practice and/or OPP
    - ▶ Demonstrate competency in understanding and application of OPP to A/I patient.
    - ▶ Demonstrate treatment of person rather than symptoms.
    - ▶ Demonstrate understanding of somato-visceral relationships and role of musculoskeletal system in disease as it relates to integumentary system.
    - ▶ Perform critical appraisals of literature related to OPP, especially studies that incorporate osteopathic concepts in A/I.

## OSTEOPATHIC EDUCATION PROGRAM 6.B (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO B. MEDICAL KNOWLEDGE (CONTINUED).

- ▶ Teaching methods:
  - ▶ Didactic and workshop training
    - ▶ Medical knowledge in OPP/OMT presented and evaluated
    - ▶ Primary ambulatory training site
      - ▶ Weekly [Allergy-Immunology AOA Board](#) review
      - ▶ [POMT Modules](#)
    - ▶ UH Regional Hospitals campuses.
      - ▶ Didactic-workshop training for ONMM Grand Rounds
      - ▶ Monthly ONMM Core Faculty Didactic-Workshop Series

## OSTEOPATHIC EDUCATION PROGRAM 6.B (CONTINUED).

---

### LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO B. MEDICAL KNOWLEDGE (CONTINUED).

- ▶ Teaching Methods: Multiple opportunities for training to improve medical knowledge incorporating OPP and specifically, osteopathic concepts in A/I
  - ▶ Weekly A/I AOA Board review
    - ▶ Section on OPP-focused questions
    - ▶ 1/3 of AOA A/I Boards pertain to integration of osteopathic concepts in A/I
  - ▶ Monthly Osteopathic Neuromusculoskeletal Medicine (ONMM) Core Faculty Didactic-Workshop Series expect Fellows:
    - ▶ Understand fundamental knowledge of OMT modality and perform relevant techniques
    - ▶ Perform required elements of structural exam
    - ▶ Complete pertinent osteopathic-focused board examination questions
  - ▶ ONMM Grand Rounds
    - ▶ 1<sup>st</sup> and 3<sup>rd</sup> Friday/month during academic year
    - ▶ Participation when topics pertinent to A/I. Examples: Sinusitis, Pneumonia, Asthma, etc.
  - ▶ Quarterly POMT Modules, e.g., Chapman's Reflexes, chest, otitis media, URI, CF, etc.



## UHOC Osteopathic Conference

Management Services Center – Media Room  
3605 Warrensville Center Road Shaker Heights, Ohio 44122  
Friday, May 17, 2019

7:30am – 8:30am: "Low Back Pain", presented by *John Weston, DO*, Lake Erie College of Osteopathic Medicine, Erie, Pennsylvania

8:30am – 9:30am: "Compassion, fatigue, trauma and burnout", presented by *Jill Fulton, LISW*, Manager, Employee Assistance, University Hospitals

9:30am – 10:45am: Grand Rounds: "Utilizing OMT to Manage Low Back Pain" presented by University Hospitals, St. John Medical Center Emergency Medicine PGY-4's, *Katie Baker, DO, Magdy Eskander, DO, Erin Fenoff, DO, Andrew Gaydos, DO, James Johns, DO, Alyson Kracke,*

10:45am – 11:15am: Journal Club: p

University Hospitals  
(<https://uhcommunity.uhhospitals.org/CoreLibrary/>)

ed control trial to determine the effectiveness and al effects of spinal manipulation and spinal n compared to each other and a sham condition in h chronic low back pain: Study protocol for The dy

Russ, Masato Nakazawa, Christopher R. France, Stevan Walkowski, Timothy D. Law, Megan to, Samuel Lietkam, James Odenthal, Daniel Corcos, Simeon Hain, Betty Sindelar, Robert J. es S. Thomas

2018-07-01, Volume 70, Pages 41-52, Copyright © 2018 Elsevier Inc.

is one of the most common reasons for seeking medical care. Manipulative therapies ent for LBP. Few studies have compared the effectiveness of different types of es. Moreover, the physiologic mechanisms underlying these treatments are not fully ve present the study protocol for The R esearching the E ffectiveness of L umbar I

## Osteopathic Therapy in Cystic Fibrosis Board Review



- American College of Osteopathic Pediatricians
- Amy Resitar, DO
- Robert Hostoffer, DO, FACOP, FAAP

edited by  
Eric Hegybeli, DO,  
FACOP



## Question 1:

- A 15 year old patient with cystic fibrosis presents to your office with a productive cough. The mucus is thick. You consult pediatric pulmonary. When you decide to OMT. Which procedure would be most helpful?
  - A. Rib raising
  - B. Doming of the diaphragm
  - C. Miller's Lymphatic pump
  - D. **Anterior cervical fascia release**
  - E. Galbraeth maneuver



## OSTEOPATHIC EDUCATION PROGRAM 6.B (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO B. MEDICAL KNOWLEDGE (CONTINUED).

- ▶ Assessment Methods
  - ▶ Documentation of medical knowledge in OPP application
    - ▶ Rotation, mid-year, and annual evaluations
    - ▶ Portfolio
  - ▶ Evaluated on each session for OPP/OMT didactic training:
    - ▶ Monthly ONMM Core Faculty Didactic-Workshop Series
    - ▶ ONMM Grand Rounds
    - ▶ Quarterly [POMT](#) Modules
    - ▶ Weekly [A/I AOA Board](#) Review
    - ▶ [CAOM](#) Annual OMM Seminar
  - ▶ Didactic session performance evaluation
    - ▶ Mid-year and annual evaluations
    - ▶ Board-like questions
    - ▶ Identifying [core model](#) for utilizing OPP (Postural/Structural, Respiratory-Circulatory, Neurologic, Metabolic, Behavioral)

## OSTEOPATHIC EDUCATION PROGRAM 6.C.

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO C. PRACTICE-BASED LEARNING AND IMPROVEMENT

- ▶ Teaching Methods: Complete **osteopathic-focused scholarly projects** during Fellowship:
  - ▶ **Drs. Hostoffer and Jhaveri** assure accurate application of osteopathic concepts to A/I
  - ▶ Longitudinal **rotations** with Drs. Hostoffer and Jhaveri, where clinical encounters will be discussed to identify evidenced-based OPP/OMT applications
  - ▶ **A/I OMT Module**
    - ▶ Presentation
    - ▶ Handout to highlight key concepts and instructions for identified OMT techniques
    - ▶ Evaluation tool with board-like questions.
  - ▶ **Osteopathic-Focused Research Project**
    - ▶ Group project, with each Fellow actively participating.
    - ▶ Recently submitted "[Asthma: The Osteopathic Modular Approach](#)"

## OSTEOPATHIC EDUCATION PROGRAM 6.C (CONTINUED).

---

**LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO C. PRACTICE-BASED LEARNING AND IMPROVEMENT (CONTINUED).**

- ▶ Teaching Methods:
  - ▶ Weekly **A/I Journal Club** with monthly focus on topic that integrates OPP in A/I
  - ▶ Weekly **[A/I AOA Board Review](#)**
    - ▶ Senior A/I Fellow(s) lead, presenting all questions and reviewing responses
    - ▶ OPP-focused questions
  - ▶ Weekly application of **Osteopathic Models of Patient Care** to mechanisms and clinical significance of Clusters of Differentiation (**CDs**) /Interleukins (**ILs**)
  - ▶ Weekly **“one-liners”** (clinical vignettes) with at least monthly OPP focus
  - ▶ **Self-study** encouraged by A/I training w/in primary ambulatory training site
  - ▶ Libraries
    - ▶ Access to **UH Medical**, **[UH Core](#)**, and **LECOM Core**
    - ▶ Also Site 1 **Learning Center**, **UH Regional Hospitals**, **[Cleveland Health Sciences Library](#)**, and **[LECOM Learning Resource Center](#)**, which offer OPP resources to support osteopathic-focused training and scholarly activity.

Journal Club Allergy and Immunology  
 Date Presented: 2/18/19  
 Fellow: Shan Shan Wu

Reference:	“Osteopathic lymphatic pump techniques pneumonia” in Int J Osteopath Med. 2012
Authors/Affiliations/Specialties:	Lisa M. Hodge, Ph.D. *Osteopathic Research Center, University of North Texas *Department of Molecular Biology University of North Texas
Quick Summary:	<p><b>Objective:</b> 1) To highlight clinical and basic support the use of lymphatic pump techniques and immune systems and treat pneumonia mechanisms by which LPT benefits patients.</p> <p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Pneumonia contributes to morbidity, resistance increasing. Immune surveillance, immune system and release of proinflammatory chemokines, reactive oxygen and nitric oxide critical for protection from pathogens.</li> <li>• Intrinsic physiological factors factor in lymphatic vessels             <ul style="list-style-type: none"> <li>○ i.e. skeletal muscle contraction</li> </ul> </li> <li>• External forces also increase lymphatic flow             <ul style="list-style-type: none"> <li>○ i.e. exercise, passive limb massage, manipulative medicine techniques</li> </ul> </li> <li>• Restrictions of lymph circulation impair response to a pathogen</li> <li>• Osteopathic goal of LPT is to enhance lymphatic flow. Indication to treat infection and edema             <ul style="list-style-type: none"> <li>○ Via thoracic cage, abdominal and legs (pedal pumps)</li> </ul> </li> <li>• Few published clinical studies examine effect of LPT on infection and immunity             <ul style="list-style-type: none"> <li>○ i.e. Early studies in human showed that immunity in both healthy and infectious disease (1932, 1933)</li> </ul> </li> </ul> <p><b>Lymphatic pump techniques enhance the immune response</b></p> <ul style="list-style-type: none"> <li>• Recent animal studies have shown that lymph into the lymphatic system increases leukocyte output</li> <li>• Study #1 (Hodge et al, 2010)             <ul style="list-style-type: none"> <li>○ Model: Dog after surgery</li> </ul> </li> </ul>

ed for generations on the approach  
 Robert Orenstein, DO  
 Editor in Chief  
 The Journal of the American Osteopathic Association

Dear Dr. Orenstein,  
 The following manuscript entitled “Rhinitis: The Osteopathic Approach” is being considered for publication as Reviews in Musculoskeletal Medicine, American Osteopathic Association. Relevant practice areas include allergy, immunology, allergy-immunology, ear, nose and throat medicine, otorhinolaryngology, and pediatrics. The manuscript was initiated at University Hospitals Cleveland Medical Center. All of the authors have read and approved the manuscript. All requirements have been met.

Thank you for your consideration of this manuscript. If you have any questions, please contact me. Best regards,  
 Corresponding author:  
 Shan Shan Wu, DO  
 Adult and Pediatric Allergy and Immunology  
 Department of Pulmonary and Critical Care Medicine  
 University of North Texas Health Science Center  
 Preferred Mailing Address: 5915 Landerbrook  
 Preferred Email Address: swu815@gmail.com  
 Office Telephone Number: 216-381-3333  
 Fax Number: 216-381-3002

for the care of patients  
 diagnosis and management  
 when a whole person  
 isolated from the body,  
 body, and spirit with the  
 rhinitis.

## Flexion and Extension



## Occipital-Atlantal Cervical High Velocity Low Amplitude

- The patient is supine. Place your hand on the ramus of the mandible with fingers extending downward toward the chin. Apply a sudden increase in the rotation of the neck by

## Pediatric Cervical OMT Module Board Review



- American College of Osteopathic Pediatricians
- Robert Hostoffer, DO, FACOP, FAAP

edited by  
 Eric Hegybeli, DO,  
 FACOP

## OSTEOPATHIC EDUCATION PROGRAM 6.C (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO C. PRACTICE-BASED LEARNING AND IMPROVEMENT (CONTINUED).

- ▶ Assessment Methods:
  - ▶ Rotation, mid-year, and year-end evaluations document OPP application
    - ▶ Practice-based learning
    - ▶ Improvement domain
  - ▶ Quality improvement
    - ▶ Clinical setting OPP application
    - ▶ Critical appraisal to determine benefit of OMT in patient care setting.

## OSTEOPATHIC EDUCATION PROGRAM 6.D.

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO D. INTERPERSONAL AND COMMUNICATIONS SKILLS

- ▶ Teaching Methods: Application of interpersonal and communication skills are **critical components of patient-centered approach**, integrated into osteopathic medicine.
  - ▶ Demonstrate:
    - ▶ Interpersonal and communication skill to **effectively discuss osteopathic concepts and their role in patient care**
    - ▶ Appropriate **verbal and non-verbal skills**
  - ▶ Integrate **OPP** into interpersonal skills and communication skills
    - ▶ **ALL inpatient consults and ambulatory clinics**
    - ▶ Evaluated by osteopathic attendings
  - ▶ **Explain benefits and risks of OMT** when applied in clinical setting.

## OSTEOPATHIC EDUCATION PROGRAM 6.D (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO D. INTERPERSONAL AND COMMUNICATIONS SKILLS (CONTINUED).

- ▶ Assessment Methods:
  - ▶ Rotation, mid-year and year-end evaluations
    - ▶ Documentation on interpersonal and communications skills
    - ▶ Reflect patient-centered focus of osteopathic profession.
  - ▶ Also assessed by direct supervision
  - ▶ “Patient Assessment Form” and “Global Evaluation Form”
    - ▶ Confidential
    - ▶ Focused on core competencies, especially interpersonal skills, communication, and professionalism

Allergy-Immunology Fellow Name: \_\_\_\_\_ Date: \_\_\_\_\_

**OSTEOPATHIC RECOGNITION AI FELLOW OBSERVATION & COMPETENCY ASSESSMENT (RO&CA)**

**Instructions for Evaluator:**  
 The RO&CA evaluation is a brief (5-10 minute) spot check of fellow's skills followed by immediate feedback. Directly observe a focused structural exam including Special Testing needs for diagnosis, an osteopathic dysfunction diagnosis, a proper set up and treatment techniques to treat the diagnosis, and recheck for improvement of dysfunction. Complete the assessment and give feedback to the resident immediately after the observation. Base your evaluation on only 1 observation, not on a composite of encounters. It is not necessary to observe and rate all these competencies during the evaluation.

**Instructions for Learner:**  
 You will be required to minimally have one RO&CA performed twice a year by one of the ONMM Core Faculty (Dr. Parnell, Ratay, Rowan, Tammen, or Kozcab) or Drs. Hostoffer and Jhaveri, the program's core OR faculty to fulfill requirement for graduation from an Osteopathic Recognition Training Program. Please obtain a copy for your personal records and provide your Coordinator with a copy for your Fellow File.

Patient diagnosis (for this observation): _____ Didactic/Workshop: Inpatient _____ Outpatient _____ Consult _____ Techniques used: ST _____ MFR _____ ME _____ HVLA _____ CS _____ Art/Still _____ Cranial _____ Other _____ Body Areas Treated: Cranium _____ C-Spine _____ T-Spine _____ T-Cage _____ L-Spine _____ Pelvis _____ Sacrum _____ Upper Ext _____ Lower Ext _____ Viscera _____	<b>N/A=not assessed LEVEL</b> 1 = novice 2 = Intermediate 3 = Competent 4 = Advanced 5 = Exceptional
---	---

**PATIENT CARE**

**Interviewing Skills:** gathers essential and accurate information that identifies impairments/diagnoses and functional impact on patient; efficient

N/A 1

**Physical Exam Skills:** proficient, thorough, elicits subtle findings; sensitive to patient comfort and modesty

N/A 1

Focus areas: check all that apply  
 Neuro: \_\_\_\_\_ Mental Status exam \_\_\_\_\_ Mobility/gait \_\_\_\_\_  
 STR: EXAM/ROM: Cranium \_\_\_\_\_ C-Spine \_\_\_\_\_ T-Spine \_\_\_\_\_ T-Cage \_\_\_\_\_ L-Spine \_\_\_\_\_  
    Pelvis \_\_\_\_\_ Sacrum \_\_\_\_\_ Upper Ext \_\_\_\_\_ Lower Ext \_\_\_\_\_ Viscera \_\_\_\_\_  
 Other: \_\_\_\_\_  
 Special tests: Performed Y N

**Technical Skills:** proficient; safe; minimizes patient risk or discomfort observed: \_\_\_\_\_

N/A 1

**PROFESSIONALISM**

**Information Consent:** obtains informed consent including explanation of risks, benefits, and alternate methods of treatment prior to procedures

N/A 1

**Sensitivity:** demonstrates sensitivity and responsiveness to patient's culture, age, gender, disability, and tolerance to technique

N/A 1

**INTERPERSONAL AND COMMUNICATION SKILLS**

**Relationship Management:** forms positive relationships and effectively communicates with patients the technique as well as instructs patient in how to best collaborate with treatment. Discussed post-treatment recommendations and follow-up.

N/A 1

**SYSTEMS-BASED PRACTICE**

**Efficient use of resources:** develops cost effective diagnostic or treatment or discharge plan of care

N/A 1

**PRACTICE BASED LEARNING AND IMPROVEMENT**

**Teaching skills:** facilitates the learning of students and other health care professionals  
 Title of fellow presentation/observation: \_\_\_\_\_

N/A 1

ST-Soft Tissue, MFR-Myofascial Release, ME-Muscle Energy, HVLA-High-velocity Low-Amplitude, CS-counterstrain, Art/Still-Articular/Still, Cr-Cranial, Other [BLT-balanced ligamentous tension, Vis-Visceral, FPR-Facilitated Positional Release]

**Strengths or Areas Needing Improvement:** For scores of 1, comments must include areas for remediation.

Both attending and fellow should rate their satisfaction with the value and use of this observation and assessment.

Attending Signature: \_\_\_\_\_ Satisfaction Rating: (Low) 1 2 3 4 5 (High)

AI Fellow's Signature: \_\_\_\_\_ Satisfaction Rating: (Low) 1 2 3 4 5 (High)



**Global Evaluation Form  
 University Hospitals Allergy Immunology Fellowship Program**

OW NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

**DIRECTION:** Please complete this confidential evaluation to the best of your ability to allow the fellow to improve. This will become a permanent part of their record.

	NEED TO IMPROVE	MEET COMPETENCY	EXCEED COMPETENCY
<b>Medical Knowledge</b>			
Fund of Knowledge Ability to apply knowledge to patient care Enthusiasm for improving knowledge base Ability to critically evaluate medical evaluation Comments (include strengths and Areas for improvement)			
<b>Patient Care</b>			
History taking/presenting skills Examination Skills Ability to appropriately order / interpret diagnostic studies Clinical problem-solving skills Ability to develop and carry-out patient management plans Allergy Skills Comments (include strengths and Areas for improvement)			
<b>Interpersonal and Communication Skills</b>			
Ability to communicate with physicians and other members of the health care team Ability to communicate with patients and their families			

OSTEOPATHIC EDUCATION PROGRAM 6.D.



## OSTEOPATHIC EDUCATION PROGRAM 6.E.

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO E. PROFESSIONALISM.

- ▶ Teaching Methods: Application of OPP into professionalism competency demonstrates **integration of behavioral and social sciences**.
  - ▶ Demonstrate **awareness** of issues of culture, religion, age, gender, sexual orientation, and mental and physical disabilities, as they may influence patient's perception of touch w/in context of OPP
  - ▶ Treat terminally ill w/ **compassion** in management of pain, palliative care, appropriate touch, and preparation for death
  - ▶ Demonstrate increased **understanding of conflicts of interest** inherent to osteopathic clinical practice and **appropriate responses** to societal, community, and health care industry pressures
  - ▶ Utilize **caring, compassionate behavior** and appropriate touch w/ patients, as related to their specialty areas.
  - ▶ When clinically indicated, under **supervision** of an osteopathic attending and **consent** provided by the patient, osteopathic structural examinations and OMT in all clinical settings.
  - ▶ **OPP integrated** into professionalism in all clinical training sites, including ambulatory and inpatient settings, and evaluated by osteopathic attendings when present.

## OSTEOPATHIC EDUCATION PROGRAM 6.E (CONTINUED).

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO E. PROFESSIONALISM (CONTINUED).

- ▶ Assessment Methods: Rotation, mid-year, and year-end evaluations
  - ▶ Documentation of professionalism
  - ▶ Expected competence for profession that has patient-centered focus.
  - ▶ “Patient Assessment Form” and “Global Evaluation Form”
    - ▶ Confidential
    - ▶ Focused on core competencies, especially interpersonal skills and communication and professionalism

**PROFESSIONAL QUALITY OF LIFE SCALE (PROQOL)**

COMPASSION SATISFACTION AND COMPASSION FATIGUE  
(PROQOL) VERSION 5 (2009)

When you [help] people you have direct contact with their lives. As you may have found, your compassion for those you [help] can affect you in positive and negative ways. Below are some questions about your experiences, both positive and negative, as a [helper]. Consider each of the following questions about you and your current work situation. Select the number that honestly reflects how frequently you experienced these things in the last 30 days.

**1=Never      2=Rarely      3=Sometimes      4=Often      5=Very Often**

- \_\_\_\_\_ 1. I am happy.
- \_\_\_\_\_ 2. I am preoccupied with more than one person I [help].
- \_\_\_\_\_ 3. I get satisfaction from being able to [help] people.
- \_\_\_\_\_ 4. I feel connected to others.

...d by unexpected sounds.  
 ...er working with those I [help].  
 ...eparate my personal life from my life as a [helper].  
 ...ive at work because I am losing sleep over traumatic experiences of a person I  
 ...have been affected by the traumatic stress of those I [help].  
 ...job as a [helper].  
 ...ing], I have felt "on edge" about various things.  
 ...[helper].  
 ...ause of the traumatic experiences of the people I [help].  
 ...i experiencing the trauma of someone I have [helped].  
 ...ustain me.  
 ...ow I am able to keep up with [helping] techniques and protocols.  
 ...ways wanted to be.  
 ...feel satisfied.  
 ...use of my work as a [helper].  
 ...its and feelings about those I [help] and how I could help them.  
 ...because my case [work] load seems endless.  
 ...a difference through my work.



**University Hospitals Allergy Immunology Fellowship Program**

Immunology Fellow Name \_\_\_\_\_

Date \_\_\_\_\_

**Professionalism Scorecard**

Instructions: Professionalism is an expectation of every physician in training and in practice. Please rate if professional expectations were not met, met or exceeded.

	Adherence	Below Expectations	Meets Expectations	Exceeds Expectations
Professional Club Attendance				
Conference Attendance				
Evaluation Completion				
Non-Patient Care Requirements (surveys, E-mail, Pages, etc.)				
Works well with others (how perceived)				

## OSTEOPATHIC EDUCATION PROGRAM 6.F.

---

**LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO F. SYSTEMS-BASED PRACTICE.**

▶ Teaching Methods:

▶ Integration of OPP involving system-based practice competency:

- ▶ Demonstrate understanding of role of osteopathic clinical practice in health care delivery systems
- ▶ Provide effective and qualitative osteopathic patient care w/in system
- ▶ Practice cost-effective medicine
- ▶ Advocate for quality osteopathic health care on behalf of their patients
- ▶ Demonstrate understanding of cost benefit of OMT, including reimbursement and correct coding and billing processes.

▶ Clinical application of OPP and OMT for A/I primarily in ambulatory setting.

▶ Rotate longitudinally w/ supervision by Drs. Hostoffer and Jhaveri.

- ▶ Core training site ([Site 1](#))
- ▶ UH Regional Hospitals-[Richmond Medical Center](#) (Consults)
- ▶ UH [Cleveland Medical Center](#) (Consults)

▶ Drs. Hostoffer and Jhaveri role-model and supervise application of osteopathic concepts in regards to current health care system.

▶ Exposure to billing and coding procedures for OMT during didactics and in primary longitudinal ambulatory training sites.

## OSTEOPATHIC EDUCATION PROGRAM 6.F.

---

LIST TEACHING METHODS (E.G., DIDACTIC PRESENTATION/WORKSHOP, INPATIENT TEACHING ROUNDS, PRECEPTOR AMBULATORY CLINIC, SKILLS AND/OR SIMULATION LAB, ETC.) AND ASSESSMENT METHODS (E.G., ROTATION EVALUATIONS, MEDICAL RECORD REVIEW, OSCE; LOGS, PATIENT SURVEY, ETC.) USED TO INTEGRATE OPP INTO F. SYSTEMS-BASED PRACTICE (CONTINUED).

- ▶ Assessment Methods:
  - ▶ Rotation, mid-year, and end-of-year evaluations include documentation in systems-based practice, which is central to our patient-centered profession.
  - ▶ Quality Improvement tasks
    - ▶ Access OMT application through log tracking
    - ▶ Ensure patients are benefiting from OPP in clinical setting.
  - ▶ Required to track use of OMT in all clinical settings. EMR modifications requested to add additional tracking mechanism.

Start Date of Fellowship:  
 End Date of Fellowship:  
 Clinical Procedure Competency Assessment Date:

1- Describe specific concepts on OMT Technique types and 5 Models of Osteopathy

OMT	1st	2nd	3rd	4th	Competency (Attending In)
	X			X	
	X			X	
	X			X	
		X		X	
		X		X	
			X	X	
		X		X	

2- Identify sites of somatic dysfunction to establish diagnosis and demonstrate

	1st	2nd	3rd	4th	Competency (Attending In)
				X	
	X			X	
	X			X	
	X			X	
	X			X	
	X			X	
	X			X	
	X			X	

**Osteopathic Exam:**

- Osteopathic Manipulation performed on the following regions:
- Cranial  Cervical  Thoracic  Lumbar  Sacral  Innominate  Upper Extremity  Lower Extremity
- Rib Cage  Visceral  Other (describe):
- I personally reviewed and interpreted spirometry, skin tests, patch tests, and all other procedures/tests performed today.
- I personally reviewed and interpreted radiology studies, laboratory studies, and/or other medical records.
- I personally reviewed/updated patient's current medication list

**Patient Encounter**

PT \_\_\_\_\_ DATE & TIME \_\_\_\_\_  
 DOB \_\_\_\_\_ OV / NP \_\_\_\_\_  
 ACCOUNT # \_\_\_\_\_ SHER / HOSTOFFER / T / JHAVERI / SHOT \_\_\_\_\_

CPT	Description	CPT	Description	CPT	Description
99201	New Patient NP OUT LEVEL 1 10M	94664	Pulmonary Function Testing Contd. DEMO OF PULMONARY DE	90657	Injections FLU VACCINE 6-35 MONTHS
99202	NP OUT LEVEL 2 20M	J7665	MANNITOL CAPSULE	90658	FLU VACCINE 3YRS & OLDER
99203	NP OUT LEVEL 3 30M	95004	Allergy Diagnostics SCRATCH TEST #	Q2037	FLU VACCINE MEDICARE
99204	NP OUT LEVEL 4 45M	95024	I.D. TESTS - #	G0008	ADMIN FLU MEDICARE
99205	NP OUT LEVEL 5 60M	95017	SKIN TEST (ANY) VENOMS	90471	IMMUNE ADMIN, 1 INJ
99211	Established Patient EP OUT LEVEL 1 5M	95018	SKIN TEST (ANY) DRUGS	90472	IMMUNE ADMIN, EACH ADDTL
99212	EP OUT LEVEL 2 10M	95044	ALLERGY PATCH TESTS	90732	PNEUMOCOCCAL, 23 VALENT
99213	EP OUT LEVEL 3 15M	95180	RAPID DESENSITIZATIO	90670	PREVNAR
99214	EP OUT LEVEL 4 25M	J3301	TRIAMCINOLONE ACETON	96401	INJECTION DF XOLAIR
99215	EP OUT LEVEL 5 40M	95075	61 MIN 2 HOURS INGESTION CHALLENGE	G0009	ADMIN PNEUMOVAX MEDICARE
99354	PROLONGED PHYS SERVICE 1st HOUR	95079	OVER 2 HOURS INGESTION CHALLENGE	90744	HEPATIS B VACCINE
99355	PROLONGED PHYS SERVICE EACH ADDTL 30MINS	31231	NASAL ENDOSCOPY, DIAGNOSTIC	90746	HEP B VACCINE ADULT
99415	PROLONGED STAFF SERVICES 1st HOUR	95115	Allergy Injections IT - SINGLE W/O EXT	90716	CHICKENPOX VACCINE
99416	PROLONGED STAFF SERVICES, EACH ADDTL 30 MIN	95117	IT - MULTIPLE W/O EXT	90632	HEP A VACCINE ADULT
99241	Consults CONSULT LEVEL 1 15M	95165	MULTIPLE ALLERGENIC	90633	HEP A VACC, PEDIADOL
99242	CONSULT LEVEL 2 30M	95145	VENOM EXTRACT 1 VENO	90634	HEP A VACC, PEDIADOL
99243	CONSULT LEVEL 3 40M	95146	2- VENOM	86580	TUBERCULIN SKIN TEST
99244	CONSULT LEVEL 4 60M	95147	3 VENOM EXTRACT	J1460	GAMMASTAN/GAMMAGLOBULIN
99245	CONSULT LEVEL 5 80M	95148	4 VENOMS	96372	THER/PROPHI DIAG INJECTION
94010	Pulmonary Function Testing SPIROMETRY	95149	5 VENOM EXTRACT	J1030	DEPO MEDROL 40 MG
94060	SPIR P&P AEROSOL TR	98925	OMT	J1040	DEPO MEDROL 80 MG
94640	AEROSOL TREATMENT	98926	OMT 1-2 REGIONS	J3420	B12 DRUG, UP TO 1,000 MCG
94760	PULSE OX, SINGLE	98927	OMT 3-4 REGIONS	96070	MANNITOL CHALLENGE
94761	PULSE OX, MULTIPLE	98928	OMT 5-6 REGIONS	94070	MANNITOL PFT'S
94620	EXERCISE CHALLENGE	98929	OMT 7-8 REGIONS	J1956	LEVAQUIN 1 GM
95012	FeNO TESTING		OMT 9-10 REGIONS	J0171	EPINEPHRINE UP TO 1
36415	Laboratory VENIPUNCTURE			90733	MENINGOCOCCAL
87880	RAPID STREP			90707	MMR
87804	RAPID INFLUENZA, NASAL SWAB			90703	TETANUS
G8482	Vaccine Reporting Influenza immunization administered or previously received			J2357	XOLAIR 5 MG
G8483	Influenza immunization was not ordered or administered for reasons documented by clinician				
4040F	Pneumococcal vaccine administered or previously received				

## OSTEOPATHIC LEARNING ENVIRONMENT 7.

LIST THE PLANNED LEARNING ACTIVITIES PROVIDED FOR THE DESIGNATED OSTEOPATHIC FELLOWS THAT INTEGRATE OPP (E.G., GRAND ROUNDS, JOURNAL CLUB, OSTEOPATHIC MANIPULATIVE MEDICINE (OMM)/OSTEOPATHIC MANIPULATIVE TREATMENT (OMT) WORKSHOPS, CORE LECTURES, ETC.), INCLUDING THOSE THAT ADVANCE PROCEDURAL SKILLS ACQUISITION IN OMM.

Learning Activity	Frequency and number of hours in duration	Type of osteopathic faculty member participation (e.g., lead, moderate, evaluate, observe, etc.)	Osteopathic faculty members, who will participate
Journal Club w/ osteopathic focus	Monthly; 30 min. - 1 hr.	Moderate	Dr. Hostoffer, Dr. Jhaveri
Clusters of differentiation (CDs) /Interleukins (ILs) with osteopathic focus	Weekly; 30 min. - 1 hr.	Moderate	Dr. Hostoffer
Osteopathic "one-liners" (case vignettes)	Monthly; 30 min. - 1 hr.	Moderate	Dr. Hostoffer

## OSTEOPATHIC LEARNING ENVIRONMENT 7.

LIST THE PLANNED LEARNING ACTIVITIES PROVIDED FOR THE DESIGNATED OSTEOPATHIC FELLOWS THAT INTEGRATE OPP (E.G., GRAND ROUNDS, JOURNAL CLUB, OSTEOPATHIC MANIPULATIVE MEDICINE (OMM)/OSTEOPATHIC MANIPULATIVE TREATMENT (OMT) WORKSHOPS, CORE LECTURES, ETC.), INCLUDING THOSE THAT ADVANCE PROCEDURAL SKILLS ACQUISITION IN OMM.

Learning Activity	Frequency and number of hours in duration	Type of osteopathic faculty member participation (e.g., lead, moderate, evaluate, observe, etc.)	Osteopathic faculty members, who will participate
American Academy of Osteopathy (AAO) <u>Annual Convocation Lectures</u> (DVD format)	Quarterly; 1 hr.	Moderate	Dr. Hostoffer, Dr. Jhaveri
Foundations of Osteopathic Medicine, 4e readings	Monthly; 30 min. - 1 hr.	Moderate	Dr. Hostoffer
OMM Workshop (Directed by Paul Evans, DO)	Yearly; 1 business day (8-9 hrs.)	Lead	Dr. Hostoffer, Dr. Jhaveri



## OSTEOPATHIC LEARNING ENVIRONMENT 7.

LIST THE PLANNED LEARNING ACTIVITIES PROVIDED FOR THE DESIGNATED OSTEOPATHIC FELLOWS THAT INTEGRATE OPP (E.G., GRAND ROUNDS, JOURNAL CLUB, OSTEOPATHIC MANIPULATIVE MEDICINE (OMM)/OSTEOPATHIC MANIPULATIVE TREATMENT (OMT) WORKSHOPS, CORE LECTURES, ETC.), INCLUDING THOSE THAT ADVANCE PROCEDURAL SKILLS ACQUISITION IN OMM.

Learning Activity	Frequency and number of hours in duration	Type of osteopathic faculty member participation (e.g., lead, moderate, evaluate, observe, etc.)	Osteopathic faculty members, who will participate
<a href="#">Cleveland Academy of Osteopathic Medicine (CAOM) OMM Workshop</a>	Yearly; 2 business days	Lead	Dr. Hostoffer, Dr. Jhaveri
<a href="#">Pediatric Osteopathic Manipulative Treatment (POMT) Modules</a>	Quarterly; 30 min. – 1 hr.	Moderate	Dr. Hostoffer, Dr. Jhaveri
Assigned Reading Lists with Reflections	Yearly; variable	Moderate	Dr. Hostoffer, Dr. Jhaveri

## OSTEOPATHIC LEARNING ENVIRONMENT 7.


---

LIST THE PLANNED LEARNING ACTIVITIES PROVIDED FOR THE DESIGNATED OSTEOPATHIC FELLOWS THAT INTEGRATE OPP (E.G., GRAND ROUNDS, JOURNAL CLUB, OSTEOPATHIC MANIPULATIVE MEDICINE (OMM)/OSTEOPATHIC MANIPULATIVE TREATMENT (OMT) WORKSHOPS, CORE LECTURES, ETC.), INCLUDING THOSE THAT ADVANCE PROCEDURAL SKILLS ACQUISITION IN OMM.

Learning Activity	Frequency and number of hours in duration	Type of osteopathic faculty member participation (e.g., lead, moderate, evaluate, observe, etc.)	Osteopathic faculty members, who will participate
UHOC Workshops	Monthly; full afternoon (4-5 hrs.)	Observe	Dr. Hostoffer, Dr. Jhaveri
LECOM Fellow Lectures in Respiratory OMM	Monthly; full afternoon (4 hrs.)	Lead	Dr. Hostoffer
OMM Billing Lecture	Yearly; 1 hour	Moderate	Dr. Hostoffer



R 1	JULY	DECEMBER	JUNE
s	Allergy practice skills	Learning limits of practice	
	Allergy office	Out rotations	
	Finish patient logs (first 6 months)		
	Finish procedure logs (first 6 months)		
cs	CD/IL Club	Practice parameters	
	Middelton's Allergy		
	One-liners		
	Formal lectures		
	Journal Club		
	OMM lecture (/month)		
	Osteopathic lecture series (9)		
	A/I/Pulmonary conferences (every other month)		
ronou g	AAACOLA ( <a href="https://www.youtube.com/user/ACAACOLA/videos?disable_polymer=1">https://www.youtube.com/user/ACAACOLA/videos?disable_polymer=1</a> )		
ops	Scholar Series ( <a href="http://www.oanet.org/aws/OOSA/pt/sp/scholar7">http://www.oanet.org/aws/OOSA/pt/sp/scholar7</a> )		
	Anaphylaxis		
	Weed walk		
	Pollen course		
	Mixing course		
	STAT course		
ships	1-2 case reports/fellow		OMM
	1 book chapter/class		



The Journal of the American Osteopathic Association  
Established 1901

**JAOA Journal Club Handout (Template)**

**Presenter: Jason Schend, DO A/I Fellow PGY-4**

---

**Article**  
Impact of Osteopathic Manipulative Treatment on Secretory Immunoglobulin A Levels in Stressed Population  
Gregory Saggio, DO; Salvatore Docimo, DO; Jennifer Pile, DO; Jennifer Norton, DO, RN; Wolfgang Gilliar, DO  
Saggio, Gregory, et al. "Impact of osteopathic manipulative treatment on secretory immunoglobulin a levels in a stressed population." *Journal of the American Osteopathic Association* 111.3 (2011): 143.

---

**Brief Background**  
Secretory IgA, as we know, is an important part of the immune system. IgA is found in high levels in the mucosa and GI tract. There is a reported inverse relationship in levels of secretory physical stress with that of mucosal sIgA levels. Increased levels of sIgA levels have been associated with in the past with lower incidence of URIs (lower levels also seen in people with mechanical ventilation). This pilot study was performed to assess whether or not OMT could have an impact on sIgA levels in saliva in a cohort of people with increased levels of stress (presumably distress vs. eustress). The hypothesis is the use of OMT would increase these levels of sIgA in a high-stress cohort leading to enhanced immunity and decrease in infection.

**CD-45**

- Protein characteristics:
- aka PTPRC; LCA; CD45-RA/CD45-RO (and RB, RC isoforms); Leukocyte Common Antigen (LCA); B220
  - 180-220 kDa
  - Type I transmembrane glycoprotein
  - Differential splicing of 3 exons yields isoforms RA, RB, RC, and RO.
  - Contains 3 fibronectin type III domains in membrane proximal region and 2 intracellular phosphotyrosine phosphatase domains.

- Ligand:
- Lectins are CD45 ligands, e.g., CD22, Galectin-1, mannan-binding protein

- Cell type:
- All hematopoietic cells, but highest in lymphocytes.
  - Isoform expression changes with activation and is characteristic of different subsets of leukocytes.
  - Multiple isoforms can be expressed on the same cell.
  - Can also be found on monocytes.

- Function:
- Has intrinsic tyrosine phosphatase activity. The cytoplasmic domains of CD45 have intrinsic phosphatase activity.
  - In T cells, CD45 dephosphorylates the tyrosine kinase Lck a residue Y99 part of TCR activation signaling cascade. Ultimately this leads to increased cytokine production and proliferation of T cells.
  - Essential for T and B cell antigen receptor-mediated activation.
  - Cross-linking of CD45 induces apoptosis in lymphocytes.

# DIDACTICS

## Diagnosis and Treatment

- Viral bronchitis
- Acute Intermittent Asthma
- M99.00 Somatic Dysfunction Head
- M99.01 Somatic Dysfunction Cervical
- M99.02 Somatic Dysfunction Thoracic
- M99.06 Somatic Dysfunction Upper Extremity
- M99.08 Somatic Dysfunction Rib

Weekly Middelton's Allergy: Principles and Practice, Volume 1, Eight Edition and Foundations of Osteopathic Medicine (FOM), Fourth Edition Chapter Readings

First Year:

1. Innate Immunity
2. Adaptive Immunity
3. Immunoglobulin Structure and Function
5. Cytokines in Allergic Inflammation

**Philosophy of Osteopathic Medicine (Chapter 1, FOM)**

7. Chemokines
8. The Complement System
11. Signal Transduction
12. Biology of Lymphocytes
13. Biology of Mast Cells and Their Mediators

**The Facial System of the Body (Chapter 4, FOM)**

15. Biology of Basophils
16. Biology of Eosinophils
17. Biology of Neutrophils

“

A twenty year old with asthma using rescue daily and with nocturnal symptoms

UHO C OMM WORKSHOP 2/15/19

THIS ACKNOWLEDGES THAT

**Neha Sanan**

Participated in the workshop

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

UHO C OMM WORKSHOP 2/15/19

THIS ACKNOWLEDGES THAT

**Jason Schend**

Participated in the workshop

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

UHO C OMM WORKSHOP 2/15/19

THIS ACKNOWLEDGES THAT

**Shan Shan Wu**

Participated in the workshop

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

# UHO C OMM WORKSHOP

UHO C OMM WORKSHOP 8/2018

THIS ACKNOWLEDGES THAT

**Rayna Doll**

HAS GIVEN THIS OMM LECTURE 8/2018

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

UHO C OMM WORKSHOP 2/15/19

THIS ACKNOWLEDGES THAT

**Nancy Joseph**

Participated in the workshop

UHO C OMM WORKSHOP 2/15/19

THIS ACKNOWLEDGES THAT

**David McGarry**

Participated in the workshop

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

LECOM Allergy/OMM Lecture

THIS ACKNOWLEDGES THAT

**Jason Schend**

HAS GIVEN THIS OMM LECTURE 10/26/18

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

LECOM Allergy/OMM Lecture

THIS ACKNOWLEDGES THAT

**Neha Sanan**

HAS GIVEN THIS OMM LECTURE 9/2018

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

**LECOM ALLERGY/URT OMM**

LECOM Allergy/URT OMM

THIS ACKNOWLEDGES THAT

**Rayna Doll**

HAS GIVEN THIS OMM LECTURE 11/9/18

LECOM Allergy/URT OMM

THIS ACKNOWLEDGES THAT

**Nancy Joseph**

LECOM Allergy/OMM Lecture

THIS ACKNOWLEDGES THAT

**David McGerry**

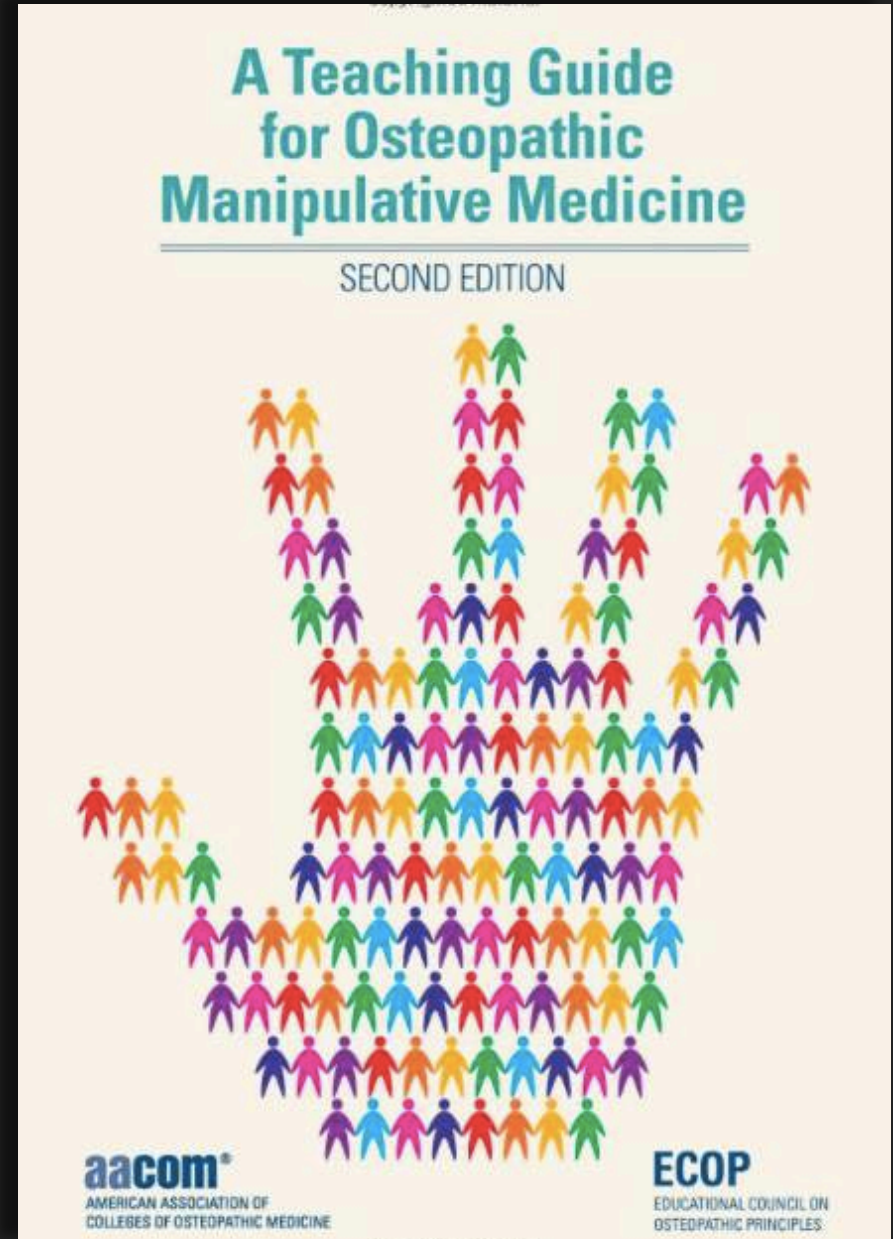
HAS GIVEN THIS OMM LECTURE 10/26/18

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

## OSTEOPATHIC EDUCATION PROGRAM 8.

### WHAT LEARNING ACTIVITIES ARE PROVIDED FOR OSTEOPATHIC FACULTY MEMBERS TO ADVANCE THEIR PROCEDURAL SKILLS ACQUISITION IN OMM?

- ▶ UH-[LECOMT](#) partnership
  - ▶ Year-long faculty development series centered around “Teaching and Learning” and “Scholarly Activity”
  - ▶ Integration of OPP
  - ▶ Core competencies, basis of each rotation evaluation.
- ▶ [CAOM](#) Annual OMT Seminar.
- ▶ ACOP program integration of OPP/OMT in the care of pediatric patient ([POMT](#))
- ▶ [Scholar Teacher](#) videos developed to enhance OPP instruction
- ▶ Mid-Western University [Costin Institute](#) Scholars Program application of OPP in training programs (Dr. Jhaveri)
- ▶ [Masters of Medical Education](#) program via LECOM to develop a greater understanding of curriculum and teaching (Dr. Hostoffer).
- ▶ Additional resource: “[A Teaching Guide for Osteopathic Manipulative Medicine, Second Edition](#)” by AACOM/ECOP (Kendi Hensel, DO, PhD, FAAO and Tyler Cymet, DO, Executive Editors, 2018).



- ▶ Basic Teaching Principals.mov
- ▶ Mini Mod ASST OVERVIEW.mov
- ▶ Mini Mod TREAT OVERVIEW.mov
- ▶ Panel ACGME Recognition Curric
- ▶ Scholar Series Introduction.mov

- ▶ Mini Mod Lab 3 Asst Up Thx Cage.mo
- ▶ Mini Mod Lab 4 Asst Low Thx Cage....
- ▶ Skill Prompt 3 Asst Up Thx Cage.mov
- ▶ Skill Prompt 4 Asst Low Thx Cage.mov

- ▶ Mini Mod Intro. and Case Description.
- ▶ Mini Mod Labs 1-8; CASE SUMMARY..

# SCHOLAR

## PILOT AND VALIDATION STUDIES

Your Guide to Research Development

# SCHOLAR TEACHER

- ▶ Mini Mod Lab 5 Tx Up Ex Rib.mov
- ▶ Mini Mod Lab 6 Tx Low Eh Rib.mo
- ▶ Mini Mod Lab 7 Tx Up Inh Rib.mov
- ▶ Mini Mod Lab 8 Tx Low Inh Rib.mc
- ▶ Skill Prompt 5 Tx Up Ex Rib.mov

- ▶ Vignette #1 Landmarks.mov
- ▶ Vignette #2 Diag Rib Dysfunction.mov
- ▶ Vignette #3 Exhalation Rib Dysfuncti...



# Lake Erie College of Osteopathic Medicine



*Be it known that the Trustees, President, and Faculty  
by virtue of the authority granted by the Commonwealth of Pennsylvania  
have conferred upon*

**Robert W. Hostoffer, Jr., D.O.**

*the degree of*

## Master of Science in Medical Education

*in recognition of the satisfactory fulfillment of the requirements*

*In Witness Whereof, we have hereunto affixed*

*and subscribed our names this twenty-sixth*

Marlene D. Mosco  
Chair of the Board of Trustees

# MIDWESTERN UNIVERSITY

CHICAGO COLLEGE OF OSTEOPATHIC MEDICINE

This is to certify that

**Devi Jhaveri, D.O., FAAP, FACOP**

Has satisfactorily completed the requirements of the  
**Costin Institute for Osteopathic Medical Educators**

And as such is deemed a  
**Costin Scholar**

The scholar has demonstrated ability to teach, research and lead  
with distinction and has an understanding of the educational process.  
The scholar is committed to improving medical education at all levels.



September 17, 2016



Kathleen H. Goepfinger, Ph.D.  
President & CEO

Karen J. Nichols, D.O., M.A., MACOI  
Dean, Chicago College of Osteopathic Medicine

Fran Daly, Ph.D.  
Director, Costin Institute

## OSTEOPATHIC LEARNING ENVIRONMENT 9.

---

### IDENTIFY THE CLINICAL SETTINGS WHERE DESIGNATED OSTEOPATHIC FELLOWS WILL PROVIDE OSTEOPATHIC PATIENT CARE. AMBULATORY SETTING.

- ▶ Clinical application of OPP/OMT primarily in ambulatory, UH-affiliated teaching practice ([Site 1](#)).
- ▶ Inpatient opportunities to perform osteopathic structural examination and utilize OMT at UH [Cleveland Medical Center](#) and UH Regional Hospitals ([Richmond Medical Center](#)).
  - ▶ Historically an osteopathic hospital.
  - ▶ Training ground for AOA and ACGME Osteopathic Recognition training programs
- ▶ Drs. Hostoffer and Jhaveri are core osteopathic-focused Allergy/Immunology faculty who can supervise application of OPP/OMT at both Site 1 and Regional Hospitals.
- ▶ OPP in patient encounters is encouraged and considered when appropriate to patient care.
- ▶ Primary sites of didactic training for OPP/OMT include [Site 1 Learning Center](#) and conference space at UH Regional Hospitals [Richmond campuses](#).
  - ▶ Necessary media equipment, i.e. computer, projector, large screen, etc.
  - ▶ Portable OMT exam tables available

## OSTEOPATHIC LEARNING ENVIRONMENT 10.

---

### DESCRIBE HOW AND WHEN DESIGNATED OSTEOPATHIC FELLOWS TEACH OPP.

- ▶ Multiple opportunities to teach OPP:
  - ▶ Co-present at [UH ONMM Grand Round series](#) for Allergy/Immunology topic that integrates OPP/OMT
    - ▶ Osteopathic-focused faculty facilitators moderate and assist all learners presenting
    - ▶ Divided into sections: Case presentation; osteopathic principles involving that topic; evidenced-base literature on the [integration of OPP/OMT](#) with that topic; several OMT techniques that apply to that topic and developing board-like questions.
  - ▶ Develop an [Allergy/Immunology OMT Module](#)
  - ▶ Present at [monthly Osteopathic-focused Journal Club](#).
  - ▶ [Role model and teach OPP](#) as it relates to Allergy/Immunology to [LECOM](#) and other visiting osteopathic medical students frequently rotate onto
  - ▶ Participants in OMM faculty development series [Scholar Teacher](#)



## UHOC Osteopathic Conference

Management Services Center – Media Room

3605 Warrensville Center Road Shaker Heights, Ohio 44122

Friday, November 2, 2018

**8:00am – 8:15am:** Osteopathic Lecture presented by: *Edward Craft, DO, Family Medicine Physician, University Hospitals, St. John Medical Center, Westlake, Ohio*

**8:30am – 9:00am:** Research during Residency & Fellowship, *Janet Peachey, Clinical Research Project Coordinator, University Hospitals, Regional Hospitals*

**9:15am – 10:30am:** Osteopathic Neuromusculoskeletal Medicine Grand Rounds Series: Viscerosomatics in a patient with ESRD and ACS, UH Regionals Internal Medicine Residency PGY-3's: *Kristen Alley, DO, Anish Bhakta, DO, James Cappello, DO, Andrew Chin, DO, Kyle Cleveland, DO, Garbat Gill, DO, Benita Mathai, DO, Peter Oley, DO, Sheha Patel, DO, Tarun Patel, DO, Wesley Zhen, DO, James Cox, DO, Ryan Shilian, DO*

**10:30am – 10:50am:** Journal Club, OMT on Post-Operative Ileus, *Andrea Fischione, DO, Asadeh Zangeneh, DO, Gary Stocker, OMS-3, Patrick Russell, OMS-3*

**10:50am-11:10am:** Journal Club, Qualitative Evaluation of OMT in a Patient with GERD: A Brief Report. *Gregory Bascua, DO; Jennifer Bastick, DO; Hoana Phuna, DO*

## Qualitative Evaluation of Osteopathic Manipulative Therapy in a Patient With Gastroesophageal Reflux Disease: A Brief Report

Leonardo Rios Diniz, DO (Brazil); Jacson Nesi, DO (Brazil); Ana Christina Curi, DO (Brazil); and Wagner Martins, OMS V (Brazil), PhD

From the Brazilian Institute of Osteopathic in Rio de Janeiro, RJ, Brazil (Drs Diniz, Nesi, and Curi), and the Physical Therapy Division at the University

of Brasilia, DF, Brazil (Dr Martins).

Disclosures: No disclosures reported.

Correspondence to: Dr. Diniz, OMS, OMS 714/914, Brasilia, DF, Brazil.

Submitted: August 20, 2013; Received: October 23, 2013; Accepted: November 5, 2013.

DOI: 10.1016/j.joms.2013.10.001

Copyright © 2013 by Elsevier Inc.

All rights reserved.

0898-0129/13/0000-0000\$36.00

**Context:** Gastroesophageal reflux disease (GERD) is a chronic condition that affects a growing number of people and is currently among the most common disorders seen in clinical practice.

**Objective:** To develop a protocol for the management of GERD with osteopathic manipulative therapy (OMTh) applied to the diaphragm and esophagus, and to evaluate the protocol's effectiveness using the quality of life scale (QS-GERD) for the disease.

**Methods:** In this single-blinded prospective study, an OMTh protocol focusing on the diaphragm and esophagus was applied to a single patient, who had received a diagnosis of GERD 4 years previously. Outcomes were measured using the QS-GERD, which has a total possible score ranging from 0 to 45 (the lower the score, the better the quality of life) and a level of satisfaction from very satisfied to incapacitated. The OMTh protocol was applied at 3 sessions (initial session, second session 1 week after the first, and third session 2 weeks after the second), and the patient completed the QS-GERD 4 times (before the first session, before the third session, and 2 and 4 weeks after the third session).

**Results:** The OMTh protocol was administered without adverse events, and the patient reported positive outcomes after the third session. The QS-GERD showed a score improvement from 13 of 45 to 4 of 45.

**Conclusion:** The results in the present report show that OMTh applied to the diaphragm and esophagus may improve symptoms of GERD and should be added to the somatovisceral approach to the care of patients with this condition.

LECOM Allergy/OMM Lecture

THIS ACKNOWLEDGES THAT

**Jason Schend**

HAS GIVEN THIS OMM LECTURE 10/26/18

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

LECOM Allergy/OMM Lecture

THIS ACKNOWLEDGES THAT

**Neha Sanan**

HAS GIVEN THIS OMM LECTURE 9/2018

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

**LECOM ALLERGY/URT OMM**

LECOM Allergy/URT OMM

THIS ACKNOWLEDGES THAT

**Rayna Doll**

HAS GIVEN THIS OMM LECTURE 11/9/18

LECOM Allergy/URT OMM

THIS ACKNOWLEDGES THAT

**Nancy Joseph**

LECOM Allergy/OMM Lecture

THIS ACKNOWLEDGES THAT

**David McGerry**

HAS GIVEN THIS OMM LECTURE 10/26/18

ROBERT HOSTOFFER, DO, PROGRAM DIRECTOR

- ▶ Basic Teaching Principals.mov
- ▶ Mini Mod ASST OVERVIEW.mov
- ▶ Mini Mod TREAT OVERVIEW.mov
- ▶ Panel ACGME Recognition Curric
- ▶ Scholar Series Introduction.mov

- ▶ Mini Mod Lab 3 Asst Up Thx Cage.mo
- ▶ Mini Mod Lab 4 Asst Low Thx Cage....
- ▶ Skill Prompt 3 Asst Up Thx Cage.mov
- ▶ Skill Prompt 4 Asst Low Thx Cage.mov

- ▶ Mini Mod Intro. and Case Description.
- ▶ Mini Mod Labs 1-8; CASE SUMMARY..

# SCHOLAR

## PILOT AND VALIDATION STUDIES

Your Guide to Research Development

# SCHOLAR TEACHER

- ▶ Mini Mod Lab 5 Tx Up Ex Rib.mov
- ▶ Mini Mod Lab 6 Tx Low Eh Rib.mo
- ▶ Mini Mod Lab 7 Tx Up Inh Rib.mov
- ▶ Mini Mod Lab 8 Tx Low Inh Rib.mc
- ▶ Skill Prompt 5 Tx Up Ex Rib.mov

- ▶ Vignette #1 Landmarks.mov
- ▶ Vignette #2 Diag Rib Dysfunction.mov
- ▶ Vignette #3 Exhalation Rib Dysfuncti...

# OSTEOPATHIC LEARNING ENVIRONMENT 11.

## DESCRIBE THE LEARNING ENVIRONMENT THAT SUPPORTS OSTEOPATHIC SCHOLARLY ACTIVITY BY OSTEOPATHIC FACULTY MEMBERS AND THE RESOURCES PROVIDED FOR THEM.

- ▶ Development of peer-reviewed journals and books in osteopathic scholarly work
  - ▶ Wu SS, Hostoffer R, Gibbons K, Shaw HH, Shaw, MB. “[Case Study: Dizziness.](#)” Chapter 48A. Osteopathic Considerations in Patients with Head, Eyes, Ears, Nose, and Throat Disorders. In *Foundations of Osteopathic Medicine*. 4th Edition (Published).
  - ▶ Wu SS, Hostoffer R, Gibbons K, Shaw HH, Shaw, MB. “[Case Study: Rhinosinusitis.](#)” Chapter 48A. Osteopathic Consideration in Patients with Head, Eyes, Ears, Nose, and Throat Disorders. In *Foundations of Osteopathic Medicine*. 4th Edition (Published).
- ▶ Journal of American Osteopathic Association (JAOA) publications
  - ▶ Peppers BP, Varma P, Kim YM, Hostoffer RW, Rowane MP. [Scholar 7: The Development of Regional Community Hospitals’ Scholastic Environment.](#) *J Am Osteopath Assoc* 2017;117(10):643–650. doi: 10.7556/jaoa.2017.121 (Published).
  - ▶ Wu SS, Graven K, Sergi M, Hostoffer H. [Rhinitis: The Osteopathic Modular Approach](#) (Published).
  - ▶ Schend J, Hostoffer H. [Asthma: The Osteopathic Modular Approach](#) (Submitted).
- ▶ Lecturer/participant in lecture series
  - ▶ [UHOC](#)
  - ▶ [AAO Convocation](#)
  - ▶ [CAQM workshop](#)
  - ▶ [OMM Workshop](#) directed by Paul Evans, DO
- ▶ Production and utilization of OMM faculty development series [Scholar Teacher](#) and [Scholar Specific](#) osteopathic curriculum.
- ▶ Library of osteopathic textbooks available on site in [Site 1 Learning Center](#).
- ▶ Additional resources include, “[A Teaching Guide for Osteopathic Manipulative Medicine.](#)” by AACOM/ECOP [Kendi Hensel, DO, PhD, Executive Editor. 2014].







## OSTEOPATHIC LEARNING ENVIRONMENT 12.

---

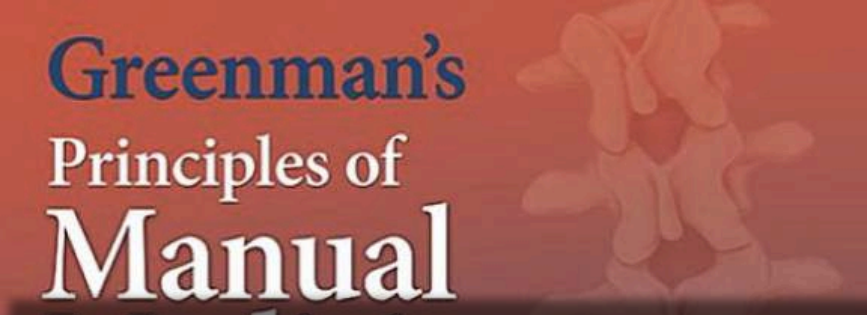
### DESCRIBE THE RESOURCES AVAILABLE TO SUPPORT OSTEOPATHIC MEDICAL EDUCATION IN THE FOLLOWING AREAS: A. REFERENCE MATERIAL PERTAINING TO OMM AND OPP INTEGRATION INTO PATIENT CARE (E.G., PHYSICAL, ON-SITE LIBRARY; ELECTRONIC LIBRARY RESOURCES; OMT VIDEO SERIES BY XYZ; ETC.)

- ▶ UH Regional Hospitals Medical Library textbooks on OPP vary from recent publications to historical books that are still currently relevant to both art and science involving OPP. A small sampling of OPP textbooks includes:
  - ▶ A Nicholas, A, Nicholas, E. *Atlas of Osteopathic Technique*. Second Edition. Lippincott Williams & Wilkins. 2011.
  - ▶ Chila, A [ed]. *Foundations of Osteopathic Medicine*. Lippincott Williams & Wilkins. 2010.
  - ▶ Ward, Robert C. (Executive Editor). *Foundations for Osteopathic Medicine*. Baltimore, Maryland: Williams & Wilkins. 1997.
  - ▶ Rowane MP, Evans P. *Basic Musculoskeletal Skills: The 15 Minute Office Encounter*. Indianapolis, IN: American Academy of Osteopathy Publications, 2013 [Second Printing].
  - ▶ Nelson, KE, Glonek, T. *Somatic Dysfunction in Osteopathic Family Medicine*. Second Edition Lippincott Williams & Wilkins. 2014.
  - ▶ Fryette, Harrison: *Principles of Osteopathic Technique*. Carmel, CA. Academy of Applied Osteopathy. 1954.
  - ▶ Page, LE: *The Principles of Osteopathy*. Kirksville, Missouri, Press of Journal Printing Company, 1952.
  - ▶ Walton, WJ: *Osteopathic Diagnosis and Technique*. Colorado Springs, CO, American Academy of Osteopathy, 1970.
  - ▶ Kuchera, WA. Kuchera, ML: *The Kuchera Manual in Osteopathic Principles in Practice*. Second Edition (Revised) Kirksville, Missouri: KCOM Press, 1992.
  - ▶ DiGiovanna, EL, Schiowitz, S, Dowling, DJ. *An Osteopathic Approach to Diagnosis and Treatment*. Third Edition, Philadelphia. PA: Lippincott-Raven Publishers. 2004.
  - ▶ Greenman, Philip E. *Principles of Manual Medicine*. Second Edition Baltimore, Maryland: Williams & Wilkins. 1996.
  - ▶ Kuchera, ML, Kuchera, WA: *Osteopathic Considerations In Somatic Dysfunction*. Second Edition (Revised) Kirksville, Missouri: KCOM Press, 1991, 33-52.
  - ▶ Carreiro, J. *Pediatric Manual Medicine*. Church Livingstone Elsevier. 2009.
  - ▶ Carreiro, J. *An Osteopathic Approach to Children*. Second Edition. Church Livingstone Elsevier. 2009.
  - ▶ Jones, LH, Kusunose, R, Goering, E. *Jones Strain-Counterstrain*. Jones Institute. 1995.
  - ▶ Hebgen, EU. *Visceral Manipulation in Osteopathy*. New York. Thieme Publishing Group. 2011.

## OSTEOPATHIC EDUCATION PROGRAM 13.A (CONTINUED).

**DESCRIBE THE RESOURCES AVAILABLE TO SUPPORT OSTEOPATHIC MEDICAL EDUCATION IN THE FOLLOWING AREAS: A. REFERENCE MATERIAL PERTAINING TO OMM AND OPP INTEGRATION INTO PATIENT CARE (E.G., PHYSICAL, ON-SITE LIBRARY; ELECTRONIC LIBRARY RESOURCES; OMT VIDEO SERIES BY XYZ; ETC.)**

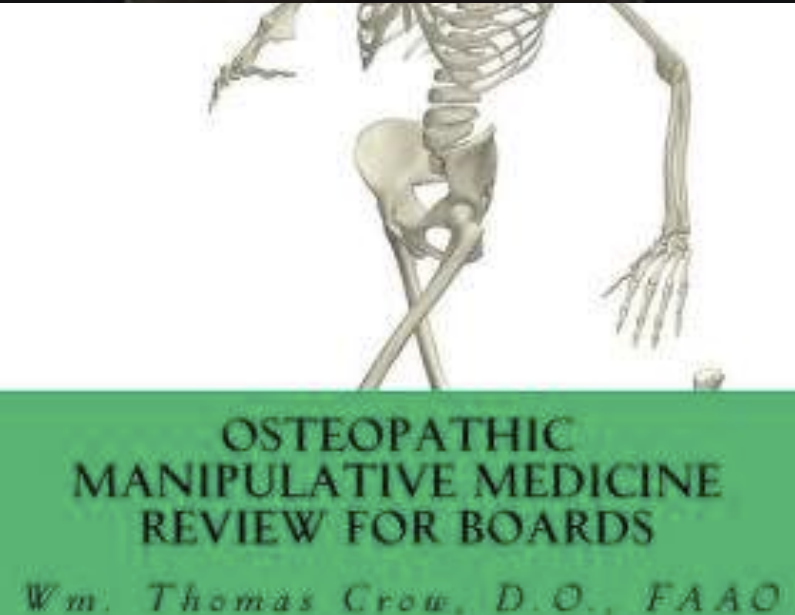
- ▶ Videos that incorporate OPP, including:
  - ▶ “Treating the Hospitalized Patient with Osteopathic Manipulative Treatment” by Karen Steele, DO, FAAO
  - ▶ “Principles of Manual Medicine” by Philip E. Greenman, DO, FAAO
- ▶ Series of readings fundamental to understanding OPP and boards review:
  - ▶ Still AT. **Osteopathy Research & Practice**
  - ▶ Crow WT. [Osteopathic Manipulative Medicine Review for Boards](#) (3<sup>rd</sup> Edition).
  - ▶ Nelson KE. **Somatic Dysfunction in Osteopathic Family Medicine.**
  - ▶ DiGiovanna EL, Schiowitz S. Dowling DJ. **An Osteopathic Approach to Diagnosis and Treatment.**



**Greenman's**  
Principles of  
**Manual**



**OSTEOPATHY**  
*Research & Practice*



**OSTEOPATHIC  
MANIPULATIVE MEDICINE  
REVIEW FOR BOARDS**  
*Wm. Thomas Crow, D.O., FAAO*

# OSTEOPATHIC EDUCATION PROGRAM 13.A (CONTINUED).

## DESCRIBE THE RESOURCES AVAILABLE TO SUPPORT OSTEOPATHIC MEDICAL EDUCATION IN THE FOLLOWING AREAS: A. REFERENCE MATERIAL PERTAINING TO OMM AND OPP INTEGRATION INTO PATIENT CARE (E.G., PHYSICAL, ON-SITE LIBRARY; ELECTRONIC LIBRARY RESOURCES; OMT VIDEO SERIES BY XYZ; ETC.)

- ▶ OPP/OMM/OMT On-Line Reference materials:
  - ▶ **OSTMED.DR®** (<http://cdm17018.contentdm.oclc.org>)
    - ▶ Osteopathic medicine digital library
    - ▶ Books, selective journals, video and images, and core journals, including:
      - ▶ **Journal of Osteopathy** v.4 (2, 4-12) 1897; v.5 (1-7) 1898
      - ▶ **JAOA** – 1950 to present
      - ▶ **AOAJ** - 1960 to present
  - ▶ **LECOM/LECOMT Core Library** affiliation w/ UH enables access to the **American College of Osteopathic Family Physicians OMT Coursework** (<http://www.acofp.org/acofpimis/acofporg/apps/OMT/index.html>)

**OSTMED.DR**  
Osteopathic Medical Digital Repository

Home Browse All

Search  Search Advanced Search

**All Collections**

**OSTMED-DR**

OSTMED.DR® is an osteopathic medicine digital library created by a partnership between Edward Via College of Osteopathic Medicine (VCOM) and VTLS, Inc. in 2006. OSTMED.DR® builds upon OSTMED®, a bibliographic index to the literature of osteopathic medicine. OSTMED® was sponsored by the American Osteopathic Association (AOA) and

**About the collections**

OSTMED.DR® is an osteopathic medicine digital library created by a partnership between Edward Via College of Osteopathic Medicine (VCOM) and VTLS, Inc. in 2006. OSTMED.DR® builds upon OSTMED®, a bibliographic index to the literature of osteopathic medicine. OSTMED® was sponsored by the American Osteopathic Association (AOA) and the American Association of Colleges of Osteopathic Medicine (AACOM) and originally developed by the Gibson D. Lewis Health Science Library of the University of North Texas Health Science Center at Fort Worth (UNTHSC-FW) along with the Kirkaville College of Osteopathic Medicine's (KCOM) A.T. Still Memorial Library with contract approval in June 1997. While OSTMED® was a bibliographic citation

**acofp** AMERICAN COLLEGE OF OSTEOPATHIC FAMILY PHYSICIANS

MEMBERS EVENTS EDUCATION RESOURCES PRACTICE MANAGEMENT ABOUT ACOFP

**Board Preparation Tools**

Online Intensive Update & Board Review | Smartphone OMT Apps

ACOFP offers several options to help you prepare for exams. This online educational video library lets you view step-by-step demonstrations of over 150 osteopathic manipulative treatment (OMT) procedures. Use the practice questions for recertification and certification test preparation that contains over 150 multiple choice questions, with a detailed explanation of each answer. View presentations from past ACOFP Board Reviews or get back to the OMT basics. Purchase one session at a time or choose a whole set to earn CME and refresh your skills.

**TOOLS TO HELP PREPARE FOR YOUR EXAMINATION**

Cognitive Exam Prep Tools OMT Practical Exam Prep Tools

PRACTICE QUESTIONS OMT VIDEO PROCEDURES

## OSTEOPATHIC EDUCATION PROGRAM 13.B.

---

DESCRIBE THE RESOURCES AVAILABLE TO SUPPORT OSTEOPATHIC MEDICAL EDUCATION IN THE FOLLOWING AREAS: B. ACCESSIBILITY OF EXAMINATION TABLES SUITABLE FOR OMT AND EDUCATION.

- ▶ **2 portable OMT exam tables**
  - ▶ Site 1 for didactic and workshop training sessions.
  - ▶ Amendable for application of OMT in care of patients.
- ▶ **OPP/OMT training sessions**
  - ▶ Strive to demonstrate application of OPP/OMT in settings that do not have OMT tables.
  - ▶ Trainees must be able to utilize OMT in an A/I ambulatory and inpatient setting.
- ▶ **Multiple portable OMT tables at UH Regional Hospitals** (e.g. 18 portable OMT tables at [Richmond Medical Center](#)) training sites for didactic and workshop sessions
  - ▶ ONMM Grand Rounds
  - ▶ Monthly ONMM Core Faculty Didactic-Workshop Series

# OSTEOPATHIC EVALUATION 14.

SELECT THE COMMITTEE THAT REVIEWS THE PROGRESS OF ALL DESIGNATED OSTEOPATHIC FELLOWS IN THE PROGRAM AS IT RELATES TO OPP.

► Clinical Competency Committee (CCC)

CCC 2/12/2019

Agenda/minutes

In Attendance expected:

Emily Pas, Program administrator

Dr Hostoffer, Program Director

Dr Devi Jhaveri, Associate program director

1. Biannual Osteopathic Evaluation Review: Dr Hostoffer
  - a. All evaluations are in the process of being organized
  - b. Process will start next Monday
2. 360 and Osteopathic report review: Dr Hostoffer
  - a. Similar to above
3. Log Review: Dr Jhaveri
  - a. All fellows have met their Mins for patients and procedures
4. Milestone and Osteopathic review: Dr Hostoffer and Dr Jhaveri
  - a. Milestones have been submitted to ACGME
  - b. Will review composites on ACGME site
5. Faculty and fellow surveys are completed and submitted
  - a. Will review the composites and comparisons on Monday
6. Change meeting with Dr. Nedorost to next week Monday
7. Inspection binders will be reviewed next week Monday
8. Changes to chiefs for next year:
  - a. Didactic chiefs; Jason Schend
  - b. Scheduling Chief: Shan Shan Wu
  - c. Meeting Chief: Neha

## OSTEOPATHIC EVALUATION 15.

---

### LIST THE OSTEOPATHIC FACULTY MEMBER(S) ON THE CCC.

- ▶ Robert **Hostoffer**, DO, MEd, FAAP, FACOP, FACP, FACOI, UH Adult & Pediatric Allergy/Immunology Fellowship Program Director
- ▶ Devi **Jhaveri**, DO, FAAP, ACOP, UH Adult & Pediatric Allergy/Immunology Fellowship Assistant Program Director

NAME:

DEVI JHAVERI D.O.

**CURRICULUM VITAE**

915 Landerbrook Dr. #110  
Mayfield Heights, OH 44124

16 381 3333

12 399 5533

drjhaveri@allergycleveland.com

**NAME:**

Robert William Hostoffer, Jr., D.O.

**ADDRESS:**

Home: 5536 Prestwick Ln.  
Highland Hts., Oh 44143

Business: Allergy Immunology Associates, Inc.  
1611 South Green Road  
South Euclid, Ohio 44121

**DATE OF BIRTH:**

August 31, 1959

**PLACE OF BIRTH:**

Mt. Pleasant, PA

**FAMILY STATUS:**

Wife: Karen Louise  
Children: Alexander David, Vincent Michael,  
Nicholas James, Sarah Irene, Zachary Thomas

**EDUCATION:**

St. Mary's Preparatory  
Orchard Lake, Michigan, 1977

John Carroll University  
University Heights, OH  
B.S. (Biology), 1981

Philadelphia College of Osteopathic Medicine  
Philadelphia, PA  
D.O., 1985

Lake Erie College of Osteopathic Medicine  
Erie, PA  
Masters of Medical Education, 2019

**Employment**

Associate Program Director Allergy Immunology Fellowship	University Hospitals of Cleveland, Case Western Reserve University	Cleveland, OH
Partner and Physician	Allergy Immunology Associates Inc.	Mayfield Heights, OH
Research Partner Medical Director	Ohio Clinical Research Associates, LLC.	Mayfield Heights, OH
D.O.	Osteopathic Medicine	Ohio University College of Osteopathic Medicine
B.S.	Marketing and Finance	University of Illinois Chicag
g		
Fellow	Allergy and Immunology	University Hospitals Richm Medical Center
2009-2012	Resident	Pediatrics
		Rainbow Babies & Children

## OSTEOPATHIC EVALUATION 16.A.

---

WHAT OBJECTIVE FORMATIVE ASSESSMENT IS USED BY THE PROGRAM TO DETERMINE THE FOLLOWING IN DESIGNATED OSTEOPATHIC FELLOWS? A. OSTEOPATHIC MEDICAL KNOWLEDGE:

- ▶ Yearly in-service.
- ▶ Osteopathic A/I AOA Boards.
- ▶ Daily incorporation of OPP into didactics.
- ▶ Scholarly activity that incorporates OMM and OPP w/ subsequent discussion.



19. A 10 year old male presents with mild chest tightness and cough. The patient has asthma and is on appropriate medicines. You plan to increase his maintenance medicines. What OMT procedure would be helpful:
- Drainage of Galbreath
  - Auricular pull
  - Lymphatic drainage
  - Pedal pump
  - Cranial occipital release
20. An 18 year old male presents to your office with cough and resolving bronchitis. All of the following procedures would be appropriate except:
- Thoracic myofascial
  - Lateral Recumbent under the shoulder
  - Mid and Lower Thoracic Technique
  - Lymphatic Drainage
  - Solar plexus release
21. A 14 year old female presents to your office for evaluation of a runny nose. She has been dealing with this for around 5 years. Symptoms are worse in the spring and fall and around her cat. Symptoms include runny nose, sneezing, itchy eyes, and cough. What is the first appropriate diagnostic step?
- Aeroallergen serum IgE
  - Aeroallergen skin testing
  - Nasal Cytology
  - Aeroallergen serum IgG
  - No need for diagnostic testing as history alone is sufficient
22. Based on the case scenario in question 1, what is the first line recommendation for the allergic rhinitis to her cat?
- Oral Antihistamine
  - Oral Leukotriene inhibitor
  - Intranasal steroid
  - Immunotherapy
  - Avoidance/Removal of cat from house
23. Based on the case scenario in question 1, the patient eventually decides to start on immunotherapy. What type of allergen extract is not standardized by the American Society for the Testing and Materials (ASTM)?



AMERICAN OSTEOPATHIC  
ALLERGY AND IMMUNOLOGY  
EXAMINATION COMMITTEE


## Written Exam

Demonstrate your mastery of current advances in the specialty of Pediatric and Adult Allergy and Immunology.

[APPLY NOW](#)

**Pediatric and Adult Allergy  
and Immunology**

R 1	JULY	DECEMBER	JUNE
s	Allergy practice skills	Learning limits of practice	
	Allergy office	Out rotations	
	Finish patient logs (first 6 months)		
	Finish procedure logs (first 6 months)		
cs	CD/IL Club	Practice parameters	
	Middelton's Allergy		
	One-liners		
	Formal lectures		
	Journal Club		
	OMM lecture (/month)		
	Osteopathic lecture series (9)		
	A/I/Pulmonary conferences (every other month)		
ronou g	AAACOLA ( <a href="https://www.youtube.com/user/ACAACOLA/videos?disable_polymer">https://www.youtube.com/user/ACAACOLA/videos?disable_polymer</a> )		
ops	Scholar Series ( <a href="http://www.oonet.org/aws/OOSA/pt/sp/scholar7">http://www.oonet.org/aws/OOSA/pt/sp/scholar7</a> )		
	Anaphylaxis		
	Weed walk		
	Pollen course		
	Mixing course		
	STAT course		
		OMM	
ships	1-2 case reports/fellow		
	1 book chapter/class		



The Journal of the  
American Osteopathic Association  
Established 1901

*JAOA Journal Club Handout (Template)*

**Presenter: Jason Schend, DO A/I Fellow PGY-4**

---

**Article**  
Impact of Osteopathic Manipulative Treatment on Secretory Immunoglobulin A Levels in Stressed Population  
Gregory Saggio, DO; Salvatore Docimo, DO; Jennifer Pile, DO; Jennifer Norton, DO, RN; Wolfgang Gilliar, DO  
Saggio, Gregory, et al. "Impact of osteopathic manipulative treatment on secretory immunoglobulin a levels in a stressed population." *Journal of the American Osteopathic Association* 111.3 (2011): 143.

---

**Brief Background**  
Secretory IgA, as we know, is an important part of the immune system. IgA is found in high levels in the mucosa and GI tract. There is a reported inverse relationship in levels of social physical stress with that of mucosal sIgA levels. Increased levels of sIgA levels have been associated with in the past with lower incidence of URIs (lower levels also seen in people with mechanical ventilation). This pilot study was performed to assess whether or not OMT could have an impact on sIgA levels in saliva in a cohort of people with increased levels of stress (presumably distress vs. eustress). The hypothesis is the use of OMT would increase these levels of sIgA in a high-stress cohort leading to enhanced immunity and decrease in infection.

**CD-45**

- Protein characteristics:
- aka PTPRC; LCA; CD45-RA/CD45-RO (and RB, RC isoforms); Leukocyte Common Antigen (LCA); B220
  - 180-220 kDa
  - Type I transmembrane glycoprotein
  - Differential splicing of 3 exons yields isoforms RA, RB, RC, and RO.
  - Contains 3 fibronectin type III domains in membrane proximal region and 2 intracellular phosphotyrosine phosphatase domains.

- Ligand:
- Lectins are CD45 ligands, e.g., CD22, Galectin-1, mannan-binding protein

- Cell type:
- All hematopoietic cells, but highest in lymphocytes.
  - Isoform expression changes with activation and is characteristic of different subsets of leukocytes.
  - Multiple isoforms can be expressed on the same cell.
  - Can also be found on monocytes.

- Function:
- Has intrinsic tyrosine phosphatase activity. The cytoplasmic domains of CD45 have intrinsic phosphatase activity.
  - In T cells, CD45 dephosphorylates the tyrosine kinase Lck a residue Y99 part of TCR activation signaling cascade. Ultimately this leads to increased cytokine production and proliferation of T cells.
  - Essential for T and B cell antigen receptor-mediated activation.
  - Cross-linking of CD45 induces apoptosis in lymphocytes.

# DIDACTICS

## Diagnosis and Treatment

- Viral bronchitis
- Acute Intermittent Asthma
- M99.00 Somatic Dysfunction Head
- M99.01 Somatic Dysfunction Cervical
- M99.02 Somatic Dysfunction Thoracic
- M99.06 Somatic Dysfunction Upper Extremity
- M99.08 Somatic Dysfunction Rib

Weekly Middelton's Allergy: Principles and Practice, Volume 1, Eight Edition and Fourth Edition Osteopathic Medicine (FOM), Fourth Edition Chapter Readings

- First Year:
1. Innate Immunity
  2. Adaptive Immunity
  3. Immunoglobulin Structure and Function
  5. Cytokines in Allergic Inflammation
- Philosophy of Osteopathic Medicine (Chapter 1, FOM)**
7. Chemokines
  8. The Complement System
  11. Signal Transduction
  12. Biology of Lymphocytes
  13. Biology of Mast Cells and Their Mediators
- The Facial System of the Body (Chapter 4, FOM)**
15. Biology of Basophils
  16. Biology of Eosinophils
  17. Biology of Neutrophils

“

A twenty year old with asthma using rescue daily and with nocturnal symptoms

## OSTEOPATHIC EVALUATION 16.B.

---

WHAT OBJECTIVE FORMATIVE ASSESSMENT IS USED BY THE PROGRAM TO DETERMINE THE FOLLOWING IN DESIGNATED OSTEOPATHIC FELLOWS? B. OSTEOPATHIC PROCEDURAL SKILLS:

- ▶ Biannual **formative** evaluation
- ▶ Monthly **rotation** assessment
- ▶ **360-degree** evaluation form
- ▶ Objective **osteopathic competency** evaluation

Name: \_\_\_\_\_

Date of Review: \_\_\_ / \_\_\_ / \_\_\_\_

### 1<sup>ST</sup> SEMI-ANNUAL EVALUATION FOR ALLERGY/IMMUNOLLOGYFELLOWSHIP

**DIRECTIONS:** In order to make sure that your Semi-Annual Evaluation Program Director meeting goes well, **YOU ARE TO FILL OUR THIS FORM EXCEPT THE LAST PAGE PRIOR TO YOUR SEMI-ANNUAL EVALUATION PD EVALUATION MEETING AND BRING IT WITH YOU!**

#### I. ROTATION REVIEW:

**DIRECTIONS:** Please rate each rotation that you have participated in during this academic year. Please rate from 1-3.

**Rating Scale:** 1-Did not meet expectations; 2-Met educational expectations; 3-Exceeded expectations

ROTATION BLOCK	ROTATION MONTH	ROTATION	FACULTY-TEACHING	OP/OMT EXPERIENCE	OVERALL RATING	COMMENTS [WHAT DO YOU LIKE & WHAT COULD BE DONE TO MAKE THIS A BETTER EXPERIENCE]
			1 2 3	1 2 3 N/A	1 2 3	
			1 2 3	1 2 3 N/A	1 2 3	
			1 2 3	1 2 3 N/A	1 2 3	
			1 2 3	1 2 3 N/A	1 2 3	
			1 2 3	1 2 3 N/A	1 2 3	
			1 2 3	1 2 3 N/A	1 2 3	

Date of Review: \_\_\_ / \_\_\_ / \_\_\_\_

### Annual Fellow Evaluation

Fellow Training Dates: From \_\_\_\_\_ To \_\_\_\_\_

Based on the consensus of the members of the Clinical Competency Committee with the program director, this is the final evaluation of this resident in meeting the goals and objectives set for the training program.

#### EVALUATION BASED ON THE FOLLOWING ASSESSMENT TOOLS:

- Chart Evaluations
- Chart Stimulated Review
- Global Evaluation Form / Self-Evaluation
- Evaluation
- In-Training Exams
- ONMM Module/Grand Rounds Evaluation
- Director Notes
- Milestones
- ONMM ROCA

#### COMPETENCY REVIEW:

		At/Above Expected Level	Below Expected Level*
<b>Care</b>	Provides compassionate, appropriate, and effective patient care for the treatment of health problems and the promotion of health.		
<b>Medical Knowledge</b>	Demonstrates knowledge about established and evolving biomedical, clinical, epidemiological and social behavioral sciences as well as the application to patient care.		
<b>Practice-Based Learning and Improvement</b>	Demonstrates the ability to investigate and evaluate patient care practices, appraises and assimilates scientific evidence to continuously improve patient care based on constant self-evaluation and life-long learning.		
<b>Interpersonal and Communication Skills</b>	Demonstrates interpersonal and communication skills that result in effective information exchange and collaboration with patients, their families, and health professionals.		
<b>Professionalism</b>	Demonstrates a commitment to carrying out professional responsibilities, and adherence to ethical principles.		
<b>Systems-Based Practice</b>	Demonstrates awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on other resources in the system to provide optimal health care.		
<b>Osteopathic Principles &amp; Practices</b>	Demonstrates the ability to integrate Osteopathic Principles and Practices in the residents discipline, including integrating holistic patient-centered care in planning, testing, therapy, and prevention.		

\* Below expected performance (required comments)

#### Recommendations of the Clinical Competency Committee to Program Director:

\_\_\_\_\_ is in good standing and at expected level in the knowledge, clinical skills, professional attitudes and behaviors per ACGME core competencies.

OSTEOPATHIC EVALUATION 16.B.

## PICTIONARY KEY

- [R] HISTORY
- [O] OMT TECHNIQUES
- [G] MEETINGS / ORGANIZATIONS
- [B] COLLEGES
- [Y] CONSIDERATIONS FOR TREATMENT
- OO YOUR PICK

# OSTEOPATHIC PICTONARY

## OSTEOPATHIC WELLNESS

