I have no relevant financial or nonfinancial disclosures for this presentation.
Objectives

- Osteopathic resources and prior research
- Money: where to find it!
- Thinking forward:
  - Topics to consider
  - Other scholarly activity
Osteopathic Resources
American Academy of Osteopathy

- The AAO Journal (AAOJ)
  - Printed quarterly
  - Not easily searchable
- OsteoBlast
  - Emailed weekly
  - Summarizes articles on manual medicine published by peer-reviewed journals
  
  OsteoBlast
Focus on clinical research involving health care outcomes in practice of OMM

Subcommittees
- SOAR: Student Osteopathic Academic Research
- Research Poster Competition
- Research Training Conference
- Research Grant
- Networking/Consultation/Mentoring

LBORC@academyofosteopathy.org
The *International Journal of Osteopathic Medicine* is a peer-reviewed journal that provides for the publication of high quality research articles and review papers that are as broad as the many disciplines that influence and underpin the principles and practice of osteopathic medicine. Particular emphasis is given to basic science research, *clinical epidemiology* and *health social science* in relation to *osteopathy* and *neuromusculoskeletal medicine*. 
American Osteopathic Association

- Journal of the American Osteopathic Association (JAOA)
  - Published monthly
  - JAOA
- AOA Data Request
  - Data Request Form
- OSTMED: The Osteopathic Literature Database
  - Sponsored by AOA and AACOM
  - Bibliographic citations with abstracts only
  - OSTMED.DR (Digital Repository)
    - Full text, indexed, searchable
    - OSTMED.DR
AOA Research Conference

- Held at OMED annually - Sept 17-19, 2016
- Poster exhibition
- Student poster competition
- BOCER (Bureau of Osteopathic Clinical Education and Research), AAO, BSAPH (The Bureau of Scientific Affairs and Public Health), AOAPR (The American Osteopathic Association of Prolotherapy Regenerative Medicine, AOASM (American Osteopathic Academy of Sports Medicine)
- BOCER: oversee all AOA research and QI activities
The Osteopathic Cranial Academy

- Access to bibliography of “most often cited and most useful research on osteopathic manipulation”
- A discussion on research with a focus on cranial osteopathy
- Osteopathic research news updates
  - Facebook for OCA
The Osteopathic Research Center

- Affiliated with Texas College of Osteopathic Medicine, 2002
- Responsible for OSTEOPATHIC Trial → AOA’s only clinical practice guideline
  - More on this later!
- Original mission: “conduct research on mechanistic and clinical aspects of osteopathic manipulative treatment.”
  - Now also “address issues…relevant to health services and policy research and to primary care practice in general.”
- Consortium for Collaborative Osteopathic Research and Development – Practice-Based Research Network

https://jaoa.org/article.aspx?articleid=2094503
Doctors of Osteopathy Treating with OMM: Usefulness in Current Healthcare

“A Network of Doctors Treating with OMM”

Practice-based research network

Founded by A.T. Still Research Institute, 2010

**Mission, Purpose, and Values**

*Our mission* is to promote and conduct practice-based research that will further the practice of osteopathic manipulative medicine.

*Our purpose* is to create and sustain a network of clinicians engaged in the assessment of the clinical usefulness of OMM.

*Values*

– We value a practice of medicine that promotes health and optimizes humans’ inherent healing capacity.
– We value and promote the advancement of osteopathic medicine through research by supporting clinicians who integrate research into the daily practice of medicine.
– We value, promote and produce research that translates easily into primary care.
Mission

The mission of the Foundation is to:

- Identify, develop, fund, and manage research initiatives in the Osteopathic Approach to health, specifically the use of Osteopathic Manipulative Medicine (OMM) and Osteopathic Principles and Practice (OPP)
- Ensure that funded research results in translation to clinical practice that expands the capacity of DO, MD, and other clinical professionals to improve clinical outcomes and patient care
Osteopathic Texts

- AAO’s Bookstore
- AACOM’s Recommendations
- OCA’s Store
- Books and Bones
Show me the money!
5 research priorities for AOA

- Osteopathic Philosophy
  - Cost Effectiveness and Value-Based Care
  - Osteopathic Philosophy and Differences in Communication, Compassion/Empathy, or Patient Satisfaction Grant

- Chronic Diseases and Conditions
  - Obesity and Metabolic Disorders

- OMM/OMT
  - Effect of OMT on inflammation
  - Osteopathic approach on Parkinson’s Disease

- Musculoskeletal Injuries and Prevention
  - Upper Crossed Syndrome

- Pain Management
  - Chronic Pain Management (>3 months)
The five research focus areas are:

1. **Chronic Diseases & Conditions**
   
   The AOA will focus on the effect of osteopathic medicine on prevention, diagnosis and/or treatment of chronic diseases & conditions. More specifically, the AOA encourages research on common chronic diseases with high public health impact and for which "osteopathic" approaches can lead to improvements in patient outcomes and reduction in health care costs.

2. **Musculoskeletal Injuries & Preventions**
   
   The AOA will focus on the influence of osteopathic medicine on management of musculoskeletal injuries and prevention.

3. **Osteopathic Manipulative Medicine/Osteopathic Manipulative Treatment**
   
   The AOA will focus on the impact of osteopathic manipulative medicine (OMM) and osteopathic manipulative treatment (OMT) (e.g., evaluation of the benefits of OMM & OMT on validated and clinical outcomes, describing the underlying basic science of OMM and OMT and its impact on patient outcomes).

4. **Osteopathic Philosophy**
   
   The AOA will focus on the impact of osteopathic philosophy on physician training, patient health outcomes, quality of care, communication, system utilization, and patient satisfaction.

5. **Pain Management**
   
   The AOA will focus on the osteopathic approach to chronic pain management (patient outcomes, enrich quality of life and demonstrate cost effectiveness).
American Academy of Osteopathy

Through the Louisa Burns Osteopathic Research Committee

Research Focus Areas

- Mechanisms of action of NMM/OMM treatment
- Clinical efficacy of NMM/OMM treatment
- Inter- and intra-rater reliability of palpatory/sensory assessment
- Cost effectiveness of osteopathic health care
- Osteopathic physician-patient interactions
- Methods of teaching palpation, sensing, diagnosis, and NMM/OMM treatment
- Collection of normative data in OMM techniques
- Validation of OMM techniques specific research methodology

- Up to $10,000 per year

- AAO Research Grants Program
American Osteopathic Foundation

- Burnett Osteopathic Student Researcher Award
  - $2,000
- General Grants
  - At discretion of AOF
- AOF Grants and Awards

The AOF offers a variety of scholarships and awards, special projects and programs, and grants for members of the osteopathic profession.

The AOF’s board of directors, committees, and staff all take great pride in our ability to support and provide the osteopathic causes that our donors are passionate about.

Nearly $5 million in grants, awards, and scholarships have been provided in the last 10 years.
Funding Priorities

- Addressing Pre-doctoral medical education and research
- Advancing patient care and post-graduate medical education
- Enhancing osteopathic training and medical research
- Addressing targeted community needs
- Improving access to oral health care
- Reducing and preventing homelessness
- Reducing the prevalence of obesity
American Association of Colleges of Osteopathic Medicine (AACOM)

- Website provides resources for fellowships, grants, and internships
  - AACOM Programs and Funding Opportunities
  - Federal Funding Opportunities
- AACOM Research Grants
  - Priority given if potential for inter-institutional collaboration
  - Pertinent theme for osteopathic research:
    - Identification of distinctive features of OME (e.g. training in the use of touch as part of osteopathic practice, etc)
FORCE funds an Executive Management Team for projects it sponsors
They may also provide Project Teams for larger multi-faceted projects
Also help fund the project itself
FORCE Research
Under the NIH

“studies focusing on complementary health interventions used frequently by the American public, and on the conditions for which they are most frequently used are particularly encouraged.”

“...Include...investigations of the impact of complementary health modalities in alleviating chronic pain syndromes and inflammatory processes, and improving health and wellness.”

NCCIH
Local Funding Opportunities

- Individual colleges have different funding opportunities or support for finding what you need
  - CORE
- Hospitals have research grants available
  - NCH Finance and Sponsored Projects
Osteopathic Examples
Multicenter Osteopathic Pneumonia Study in the Elderly (MOPSE)

- March 2004-April 2007
- Funded by a consortium of Osteopathic Foundations (9 from 7 states!)
- From osteopathic foundations → Osteopathic Research Center → A.T. Still Research Institute → 5 hospitals around the country
- Hypothesis: OMT will decrease LOS, decrease time to clinical stability, and improve symptomatic and functional recovery score
- Randomized Controlled Clinical Trial and blinded
- Three arms: OMT, light touch “sham,” and conventional care only
- 406 patients enrolled
- Treated within 24 hours of admission
Performed 8 standardized techniques

- Thoracolumbar soft tissue
- Rib Raising
- Doming of the diaphragm – MFR
- Cervical soft tissue
- Suboccipital decompression
- Thoracic inlet MFR
- Thoracic lymphatic pump
- Pedal lymphatic pump
MOPSE Study Design Summary

**Primary Outcomes:**
1) Length of Hospital Stay
2) Time to Clinical Stability
3) Rate of Symptomatic and Functional Recovery

**Secondary Outcomes:**
- Duration of IV and oral antibiotic treatment
- Treatment Endpoints: Death, Respiratory Failure and Discharge
- 60-day Re-admission
- Success in Blinding
Conclusions

- By ITT analysis
  - outcomes not improved
- By PP analysis
  - OMT decreased LOS, duration IV antibiotics, and Mortality
    - Relative to the CCO group
- LT groups
  - outcomes tended to fall between the OMT and CCO outcomes
Pregnancy Research on Osteopathic Manipulation Optimizing Treatment Effects (PROMOTE)

- Evaluate the efficacy of OMT to reduce low back pain and improve functioning during the third trimester in pregnancy and to improve selected outcomes of labor and delivery
- Randomized, placebo-controlled trial
- 400 women
- Randomized to usual care only, usual care + OMT, or usual care + placebo US treatment
- 7 treatments over 9 weeks
OMT Techniques: all performed over 1-2 minutes
- Seated thoracic articulation
- Cervical soft tissue
- OA decompression
- Thoracic inlet MFR
- Lateral recumbent scapulothoracic soft tissue
- Abdominal diaphragm MFR
- Pelvic diaphragm MFR
- SI articulation
- Pubic symphysis decompression
- Frog-leg sacral release
- CV4
PROMOTE Results

- Improvement in back pain and back-related functioning
  - Similar in OMT and PUT groups but both significant improvement vs UCO
  - No increased risk of conversion to high-risk → Safe to use OMT
OSTEOPATHIC Trial: Osteopathic Health Outcomes in Chronic Low Back Pain

- Randomized, double-blind, sham-controlled trial
- 455 subjects
- August 2006-January 2011, single-site
- Compares OMT to US to sham US/OMT for treatment of LBP
- Received 6 sessions of OMT over 8 weeks, 15 minute sessions
  - Targeted LS, iliac, and pubic regions
  - HVLA, MVMA, soft tissue, kneading, pressure, MFR and MF stretching, positional treatment of myofascial tenderpoints, and ME
- Sham OMT involved hand contact, active and passive ROM, techniques that simulated OMT but used maneuvers such as light touch, improper positioning, purposely misdirected movements, and diminished force by treatment provider
OSTEOPATHIC Results

- OMT > Sham OMT to achieve moderate and substantial improvement in LBP at week 12
- No difference in back specific functioning, general health, work disability specific to LBP, safety outcomes, and treatment adherence between sham and real OMT
- Patients receiving OMT used prescription drugs for LBP less frequently than sham OMT
- US therapy not efficacious
- OMT regimen met or exceeded the Cochrane Back Review Group criterion for medium effect size in relieving chronic LBP
Where to begin??
Osteopathic Brainstorming

- Utilization of OMT
- Patient satisfaction
- Problem-focused
  - Large volume of specific complaint
  - Lack of allopathic treatment options: plagiocephaly, concussions, herniated disks, carpal tunnel, latch problems
  - Zebra diagnoses – great case studies!
- OMT teaching techniques
- Basic science
- What else??

https://fiberopticnow.github.io/media/brainstorm.jpg
Scholarly Activity in Osteopathic Residency

- Osteopathic education days
- OMM rotation
- OMM clinic time on their continuity clinic blocks
- OMM annual retreat
- Required research projects – with osteopathic focus
- Journal club with osteopathic focus
Incentives for Scholarly Activity

- Poster competitions
  - OMED, Convocation, local conferences
  - Financial awards
- Research experience invaluable for future career
  - Easier to do in residency with faculty and institutional support
- Build your CV with publications and presentations

Any questions??

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Resources – Websites

- "Nationwide Children's Hospital" Web. 1 Aug. 2016.
