

AGS/NIA U13 Osteoporosis and Soft Tissue (Muscle/Fat) Disorders

March 11-12, 2019

Bethesda, MD

Draft Agenda

Planning Committee: Bruce Troen (co-chair), Cathleen Colón-Emeric (co-chair), Roger Fielding, Doug Kiel, Lyndon Joseph, Cliff Rosen, Kenneth L. Seldeen, Sarah Berry, James White, Elena Volpi, Denise Kathryn Houston

Day 1: Opening Remarks and Introduction (8am – 8:40 am)

1. Introductions, conference goals, conference format – **Bruce Troen, University at Buffalo School of Medicine**
2. Framing the discussion with clinical cases - **Cathleen Colón-Emeric, Duke University School of Medicine**
 - a. Hospitalized older adults with immobility
 - b. Sarcopenic obesity and increased fracture risk in diabetes mellitus

Scientific Session Format: Sessions will include 5 talks, each about 10 minutes. Speakers will be asked to refer to at least one of the clinical cases when developing their talk. One of the co-chairs, planning committee members, or moderators will review each talk before the session and provide a 2-3 minute discussion of the clinical/basic science context after each presentation to promote translational discussion.

Day 1: Topic 1 (8:40 am to 10:40): The Hallmarks of Aging in Muscle, Bone, and Soft Tissue – Implications for Clinical Case Studies

Moderator: **Cliff Rosen, Maine Medical Center**

1. Proteostasis and autophagy
Speaker: **Jim White, Duke University**
2. Nutrient sensing
Speaker: **Christopher Adams, U. Iowa**
3. Mitochondrial dysfunction
Speaker: **Anthony Molina, Wake Forest**
4. Senescence and Senolytics
Speaker: **Ming Xu, UConn**

Close session with 20-minute moderated discussion focused on identifying gaps and future questions.

Day 1: Morning Break (10:40 to 11am)

Day 1: Topic 2 (11am– 12:40pm): Epidemiology and Clinical Measures

Moderator: **Roger Fielding, Tufts University**

1. Epidemiology – Life trajectories of lean body, fat, and bone mass changes

- Speaker: **Cyrus Cooper, University of Southampton**
2. Body Composition– Measures, physiologic and functional impact, health disparities
Speaker: **Anne Newman, University of Pittsburgh**
 3. Environmental Interactions
Speaker: **Tamara Harris, National Institute on Aging**
 4. Population-level Genetics – human gene-muscle-bone associations
Speaker: **Douglas P. Kiel, Hebrew SeniorLife and Harvard Medical School**
 5. Biomarkers
Speaker: **Kim Huffman, Duke University**

Close session with 20-minute moderated discussion focused on identifying gaps and future questions.

Day 1: Lunch and Networking 12:40 to 2pm – Junior faculty attendees will have an opportunity to interact with senior leaders in the field at lunch tables arranged by research topics.

Day 1: Topic 3 (2pm to 3:40pm): Management and Medical Decision-Making

Moderator: Sarah Berry, Hebrew SeniorLife & BIDMC, Harvard Medical School

1. Clinical phenotypes and targeting
Speaker: **Bruce Troen, University at Buffalo School of Medicine**
2. Weight reduction
Speaker: **Denise Kathryn Houston, Wake Forest School of Medicine**
3. Exercise
Speaker: **Marco Pahor, University of Florida**
4. Nutritional Factors impacting muscle, fat, and bone
Speaker: **Shivani Sahni, Hebrew SeniorLife and Harvard Medical School**
5. Myostatin/activin receptor pathways and SARMS
Speaker: **Shalender Bhasin, Brigham and Women's Hospital and Harvard Medical School**

Close session with 20-minute moderated discussion focused on identifying gaps and future questions.

Day 1: Afternoon Break (3:40 to 4pm)

Day 1: Small Group Sessions (4pm to 5pm)

Break-out sessions: Each group will be carefully pre-selected and tasked with identifying priorities and agendas on a specific topic. There will be a pair of moderators in each session. The moderators will be asked to prepare 3 slides – first 2 slides will summarize key discussion points and final slide will list up to 3 critical priorities for advancing the field.

Break out group topics and questions:

1. **Health Disparities (Nicole Wright, University of Alabama at Birmingham):** What disparities in muscle-bone diseases exist and what is their impact on health outcomes and cost? What mechanisms underlie these disparities, including genetic, environmental, and behavioral factors? How can interventions for sarco-osteoporosis be modified to improve impact for minority populations?
2. **Multi-disciplinary/multi-factorial interventions and education (Doug P. Kiel, Hebrew SeniorLife and Harvard Medical School):** What are key components of multidisciplinary and/or multi-factorial interventions to reduce the impact of sarco-osteoporosis? How can the overlap in muscle bone diseases be exploited to obtain pleiotropic benefits? How should existing models of care be modified to address the overlap of muscle/bone/fat? What are the most salient health-related outcomes that should be measured in such interventions? What aspects/assessments of functional capacity and mobility disability would be most useful? How can interdisciplinary partners/team members be best integrated in assessment and intervention paradigms?
3. **Pharmacologic interventions (Ken Seldeen, University at Buffalo):** What new pathways/targets should be tested for potential pleiotropic effects on muscle, fat and bone? How does the physiologic overlap of muscle/fat/bone impact potential toxicities of pharmacologic therapies? Will patients and clinicians accept pharmacologic therapies for sarco-osteopenia?
4. **Trial design and outcomes (Roger Fielding, Tufts University):** What populations/conditions should be targeted? What outcomes should be measured and what is a minimally clinically important change? What potential toxicities should be assessed?
5. **Biomarkers/imaging (Jim White, Duke University):** What biomarkers/imaging technologies are currently available and what are their indications? Limitations? What characteristics of new screening modalities would be most important for sarco-osteoporosis?
6. **Polypharmacy and Co-morbid conditions (Sarah Berry, Harvard Medical School):** How does the presence of common co-morbid conditions change the presentation/impact/treatment of sarco-osteoporosis? What medications impact muscle and bone, and what is their impact on the other tissue? How does risk for falls impact screening/diagnosis/treatment of sarco-osteoporosis? How can interdisciplinary team-based assessment be best utilized in this setting?

Day 1: Free time 5-6pm

Day 1: Reception and Dinner (6-9pm) Rising Star Poster Session – During the reception, the Rising Star attendees and any other junior faculty who wish to participate will present posters for feedback from senior conference attendees and collaborative opportunities.

Poster tours with senior faculty

Rising star introductions and certificates

Day 2: Moving the Field forward: Priorities, Agenda-setting, Wrap-up (8am to 11:45am)

8am to 9am: Setting Priorities for the Field Stakeholder Group Panel Discussion –
Brief remarks about their group's priorities and panel discussion from key stakeholders including NIH, Industry Scientists, National Osteoporosis Foundation, AHRQ, National Bone Health Alliance

9am – 10am: Small groups 1-3 provide 10-minute reports from the break-out groups with 10 minutes of discussion after each.

10 to 10:15am – Break

10:15 – 11:15am – Small groups 4-6 provide 10 minute reports from the break-out groups with 10 minutes of discussion after each.

11:15am to 11:45am – Moderated Discussion/Brainstorming

Day 2: Closing Remarks from the Chairs, Evaluation, Thank you's (11:45-Noon) Box lunches available for attendees

Day 2: Rising Stars: Afternoon Session for Junior Investigators Noon to 3pm)

This will be a dynamic, hands on workshop designed for junior faculty attendees and select senior leaders in the field

12-1pm - Lunch and networking – tables designated for junior faculty and mentor pairings

1-2 pm - Specific aims session: specific aims page feedback from peers and senior reviewers

2-3 pm - Consultancy challenge