Hands-on Workshops

The Hands-on Workshops (HOW) will take place at the Los Angeles Convention Center. Registrations will be processed on a first-come, first-served basis.

For workshops that have limited attendance and/or a fee associated, if you register in advance, a ticket will be printed on your name badge sheet. If a session fills up, you can request to be placed on a waiting list. Individuals on the waiting list are encouraged to arrive at the applicable session at the meeting in case there are attendees who do not show up; entry will be facilitated by the organizer.

More information including the speakers/descriptions will be available when the online Scientific Program is released in mid-December.

**Wednesday, March 16, 2:30 p.m. – 4:30 p.m.**

**HOW#1: Work Smart: Salary Negotiation and Promotion in Dental Academia**

*Attendance is limited to 40 people, you must register to attend.*

*Fee: $20*

**Sponsored by:** Women in Science Network and American Association of University Women

**Organizer:** Effie Ioannidou (University of Connecticut, Farmington, USA) and Luciana Shaddox (University of Florida, Gainesville, USA)

Despite the Equal Pay Act, salary inequality between men and women has been a recognized problem in science, technology, engineering and medicine established as early as one-year post bachelor's degree. Current efforts at a Congressional level aim to strengthen the Equal Pay Act with the proposed legislation of Paycheck Fairness Act, which aim to bring more transparency related to wages and to prohibit retaliating actions against employees, who challenge the gender-based wages. Consistent data and reports of the National Academy of Science, the Institute of Medicine and the American Association of University Women have confirmed the compensation gender gap in academia, even persisting at the level of start-up packages in public research universities and often affecting faculty attrition rates. Moreover, financial support for dependent care has been recognized by some universities and funding agencies as instrumental to faculty retention and research development. The IADR Women in Science Network (WISN) has produced evidence confirming gender-based salary inequality in dental academic leadership positions based on the American Dental Education Association (ADEA) public salary surveys. Given the significant compensation gap mainly observed in total compensation in academia, one may assume that women do not negotiate benefits, incentives, laboratory space and start-ups as effectively as men do. As pay gap increases with age and education level, it becomes critically important for women at all career levels to develop negotiation strategies and skills in order to achieve salary equity. This workshop results from a joint collaboration between the IADR WISN and the American Association of University Women, and will aim to train women faculty and researchers on negotiation strategies as they relate to compensation, development and promotion. The session will promote strategies for career development and planning for junior as well as senior academicians and researchers. The workshop goal is to solidify salary negotiation skills during any career development phase.
Thursday, March 17, 8 a.m. – 9:30 a.m.
HOW#2: Documenting Obesity and Underweight in Clinical Dental Settings
Sponsored by: Nutrition Research Group
Organizer: Elizabeth Kaye (Boston University, Massachusetts, USA)
Two-thirds of the adult US population is overweight or obese, and obesity among children is a growing problem. Obesity has been shown to be a risk factor for periodontal diseases and dental caries. Although the precise mechanisms to explain the association have not been determined, they may include the release of pro-inflammatory cytokines from fat tissue, increased potential for insulin resistance and diabetes, and overconsumption of foods that increase the inflammatory burden. At the other end of the spectrum, underweight and unintentional weight loss may be signs of medical disease that can impact oral health. Patient dental records are a potentially rich source of data that researchers can use to examine links between oral health and body composition. However, dental records often lack information on basic anthropometric measures such as height and weight. Systematic measurement and documentation of height, weight and other body size indices is inexpensive, noninvasive and quick, and can be performed in a variety of health care settings, including dental offices and clinics. This hands-on workshop will review the literature on body weight and oral health and the strengths and limitations of tools for assessing a patient’s degree of fatness or underweight. Participants will perform height and weight measurements and calculate body mass index (BMI) using on-line calculators. Participants will learn to track weight and height changes of children using growth charts, measure arm and waist circumferences and compare results to obesity standards.

Thursday, March 17, 10:45 a.m. – 12:15 p.m.
HOW#3: Better Inference in Dental Research: Navigating Causality, Bias and Precision
Sponsored by: Behavioral, Epidemiologic and Health Services Research, Pediatric Oral Health Research, Clinical and Translational Science Network and Evidence-based Dentistry Network
Organizer: Benjamin Chaffee (University of California - San Francisco, USA)
One goal of oral epidemiology is to obtain valid, precise estimates of associations between measurable factors and health outcomes of interest. Often, it is expected that those associations yield causal evidence: insight into the underlying genesis of health or disease. Well-conducted randomized controlled trials are the strongest source of causal evidence, because randomized intervention assignment eliminates or diminishes imbalances in participant characteristics (confounding variables) across the trial arms. However, ethical or practical considerations often preclude trial implementation. Thus, we regularly rely on evidence from observational studies, which are subject to greater influence from confounding, as well as to additional sources of systematic and random error - threats to validity in studies of all designs. Numerous approaches exist for addressing these challenges; yet, in designing appropriate analyses, oral health researchers face multiple decision-points and long-standing “rituals,” and must avoid common pitfalls in order to obtain valid estimates and reach trustworthy conclusions. In this hands-on workshop, registered participants will consider example observational data from pediatric oral health research. The workshop will: (1) provide an overview of selected frameworks for drawing causal inference in epidemiology; (2) present directed acyclic graphs as a tool in research design and analysis; and (3) discuss common, yet avoidable missteps in the conduct and interpretation of quantitative analyses. Finally, participants will have the opportunity to apply workshop concepts in designing an analytic strategy tailored to the example data.

Friday, March 18, 8 a.m. – 9:30 a.m.
HOW#4: Leadership Programs for Women: Developing Women Academic Leaders in Dentistry
Sponsored by: Women in Science Network
Organizer: Tamanna Tiwari (University of Colorado, Aurora, USA)
Women have made great progress in entering the worlds of professional and academic dentistry, yet barriers to full participation in academic and professional leadership persist. Formal leadership development programs can support networking and skill development and also help participants look beyond their current reality and consider career paths that may not have previously been considered a possibility. The programs that will be described in this workshop serve as important vehicles to accelerate cultural change to support a welcoming organizational culture for women. The Executive Leadership in Academic Medicine (ELAM) program, designed specifically for women faculty in schools of medicine, dentistry and public health, provides knowledge and skill development for leadership, organizational development, strategic planning and budgeting and financial management. The ADEA Leadership Institute provides training for emerging leaders in academic dentistry and represents an important leadership and networking growth experience. Two other types of programs will be discussed: the University of Colorado’s Leadership for Innovative
Team Science (LITeS) program and the Women's Inter-professional Leadership Learning (WILL) program. LITeS program is designed for senior and mid-career faculty who aspire to improve their management and leadership skills. WILL identifies emerging female leaders within the dental and other health professions and focuses on developing participant awareness and interpersonal influence skills and preparing participants for future leadership roles.

Friday, March 18, 8 a.m. – 9:30 a.m.
HOW#5: Advocacy: Your Future Depends On It
Attendance is limited to 80 people, you must register to attend.
Sponsored by: National Student Research Group, Pharmacology/Therapeutics/Toxicology and Periodontology Research
Organizer: Joshua Evans (Indiana University, Indianapolis, USA)

The Advocacy Hands-on-Workshop will consist of three modules. The first module of the workshop will open with representatives from different dental specialties (i.e., Periodontics, Public Health, Pediatrics and Orthodontics) to discuss trending and contemporary research in their respective fields. Each representative will then explain how their research has benefited from recent advocacy work or ways that additional advocacy could be beneficial. As an example, the Public Health representative will describe how the National Institute of Dental and Craniofacial Research (NIDCR) has recently prioritized research on multi-faceted interventions aimed at reducing childhood caries through actions at an individual, community/neighborhood and national government policy channels. The representative can also share their understanding on how advocating for research funding and evidence-based healthcare policies have brought momentum to this ever growing problem across the globe. In the second module, attendees will hear from advocacy experts who will use the examples presented by the dental specialists and present practical strategies on effective advocacy. Skills taught will include:

- Becoming Aware - how to identify issues in dental research that require advocacy and what new bills may affect it,
- Linking Up - how to connect and collaborate with other advocates in order to share ideas and increase awareness,
- Being Heard - how to author effective letters to local, state and federal government officials, and
- Being Seen - how to meet and interact with members of congress and/or their staffers in a direct and meaningful way.

In addition, the AADR/IADR Gert Quigley fellow will discuss how he utilized the skills taught during his six week stay in Washington, D.C. In the last module, the workshop will conclude with group role-play sessions that offer participants an opportunity to practice the advocacy skills taught. Scenarios using current concerning legislation will be presented to each group by the advocacy experts. After 10-15 minutes each group of participants will then have a mock meeting with the dental professional panel acting as members of congress. It is hoped that this low-pressure scenario will enable participants to become more confident in advocating. Feedback will be provided to the participants regarding their explanation of the issue, chosen talking points and overall effectiveness. Opportunities for discussion and questions will be made available throughout.

Friday, March 18, 10:45 a.m. – 12:15 p.m.
HOW#6: Good Clinical Practice Standards for Investigators and Clinical Research Teams
Sponsored by: Oral Health Research
Organizers: Sylvia Santos (SLS Clinical Research Consulting, LLC, Pine Brook, NJ, USA), Christine Charles (Johnson & Johnson Consumer & Personal Products Worldwide, Morris Plains, New Jersey, USA), Patricia Lenton (University of Minnesota, Minneapolis, USA)

Good Clinical Practice (GCP) is an international ethical and scientific quality standard for designing, conducting, recording and reporting trials that involve the participation of human subjects. Compliance with this standard provides public assurance that the rights, safety and well-being of trial subjects are protected and consistent with the principles that have their origin in the Declaration of Helsinki and that the clinical trial data are accurate and credible.

This workshop will provide an introduction to Investigators and the clinical research team on their roles and responsibilities in conducting clinical trials to the GCP standards and guidelines established by the International Conference on Harmonization (ICH-E6) and U.S. Title 45 Code of Federal Regulations (CFR) Part 46, U.S. Title 21 CFR Parts 11, 50, 56, 312 and 812.

The goal will be accomplished through lecture and practical application facilitated by clinical research professionals. Information will be presented and discussed regarding administration of clinical trials according to FDA Regulations and
ICH guidelines as well as practical procedures and investigator site/sponsor relationships. Information will be shared regarding the conduct of clinical trials; regulatory guidelines regarding IRB oversight and human research protections; ethical issues in clinical research; and workshops will stress the ability to follow directions and practices related to abstracting information and completing case report forms and other study records.

**Friday, March 18, 10:45 a.m. – 12:15 p.m.**

**HOW#7: Open-source 3-D Image Analysis**

*Attendance is limited to 20 people, you must register to attend.*

**Sponsored by:** Craniofacial Biology Research

**Organizer:** Lucia Cevidanes (University of Michigan, Ann Arbor, USA), Tung Nguyen (University of North Carolina, Chapel Hill, USA), Beatriz Paniagua (University of North Carolina, Chapel Hill, USA), Laura Pascal, (University of Michigan, Ann Arbor, USA), Antonio Ruellas (University of Michigan, Ann Arbor, USA), Jean-Baptiste Vimort (University of Michigan, USA) and Marilia Yatabe (University of Michigan, Ann Arbor, USA)

Extraction of clinically relevant information and knowledge from 3D images includes computational methods such as: image segmentation, image registration, visualization and quantification for diagnosis at baseline or assessment of treatment or disease progression. Open-source tools provide researchers and clinicians with flexible, robust and portable solutions for our 3D image analysis needs. The registration tools provide assessment of growth, changes with treatment, stability evaluation, improvement of the diagnosis allowing asymmetry evaluation, quantitative and qualitative analysis of skeletal and teeth displacement, TMJ evaluation, among other discovery, diagnosis and therapy monitoring applications. The intent of this workshop is to update researchers/clinicians on the development and application of 3D quantitative analyses. This workshop will include:

(a) access to the National Alliance of Medical Image Computing (NA-MIC) and Dental and Craniofacial Bionetwork for Image Analysis (DCBIA) resources, which include software, documentation and training materials ([https://www.youtube.com/channel/UCQUtGe5KrpBt2k4mrNeHeUQ/videos](https://www.youtube.com/channel/UCQUtGe5KrpBt2k4mrNeHeUQ/videos) and PDF tutorial); and

(b) activities: Trouble shoot any problem attendees may have had downloading the software from the website

- Overview of step by step in 3D image Analysis
- Visualization of surface models and file formats.
- Quantification with closest points and landmarks.
- Shape Correspondence overview
- How to use different surface formats
- How to visualize semi-transparencies
- How to measure with landmarks, distances and angles
- How to measure with shape correspondence

In preparation and prior to the workshop, attendees must watch videos 4 and 5 at [https://www.youtube.com/channel/UCQUtGe5KrpBt2k4mrNeHeUQ/videos](https://www.youtube.com/channel/UCQUtGe5KrpBt2k4mrNeHeUQ/videos). Please check the DCBIA site [https://sites.google.com/a/umich.edu/dentistry-image-computing/](https://sites.google.com/a/umich.edu/dentistry-image-computing/) for instructions on Software links and installation instructions to save installation time during the workshop.

**This workshop requires participants to bring a Mac laptop computer capable of running high end graphics based programs.** Computer should have at minimum, a dual core i5 processor. A quad i7 processor with good graphic card is recommended. The new applications are for Windows, Linux and Mac. At this point, the applications are much more robust for Mac, so the workshop will focus on the Mac applications. Please contact the organizer at luciacev@umich.edu for more details.