Our first meeting for the 2016–2017 year was held 19 October and featured NRC Regional Counsel Brett Klukan. Planning is underway for future meetings, which are expected to include a multi-chapter meeting in the spring with HPS President-elect Eric Abelquist and the annual Rob Forrest Memorial Medical Health Physics Seminar.

North Central Chapter

Emily Gaither, CNMT

The North Central Chapter of the Health Physics Society (NCCHPS) held its fall 2016 meeting on 7 October at 3M company headquarters in the greater St. Paul, Minnesota, area. There were technical talks along with a business meeting and vendor exhibits. The meeting was run by NCCHPS President-elect Jan Braun.

HPS President-elect Eric Abelquist

Health Physics Society (HPS) President-elect Eric Abelquist, CHP, PhD, visiting from Oak Ridge Associated Universities in Oak Ridge, Tennessee, was the first speaker, presenting "What Happens to ALARA if the LNT Hypothesis Is Abandoned?" In this technical talk/discussion, there was much debate on whether the linear no-threshold (LNT) hypothesis has any validity in today's radiation safety world. Is it appropriate to say low doses are safe up to some threshold? Data seems to show just that, but if this is the case, how can we convey this to the public? Going forward, combining epidemiological studies with radiation studies may be very beneficial in forming a better theory to use in place of the LNT hypothesis and the as low as reasonably achievable (ALARA) process.

Bruce Thomadsen

Bruce Thomadsen, PhD, American Association of Physicists in Medicine (AAPM) task group member and president for Center for the Assessment of Radiological Science, presented "AAPM's TG100 and the Ramifications for Radiotherapy QA." Thomadsen, from the University of Wisconsin School of Medicine and Public Health in Madison, Wisconsin, summarized his methods and findings from working on AAPM task group 100 (TG100). TG100 took a look at past task group recommendations and attempted to produce prescriptive quality assurance (QA) guidance for technologies new since TG40. After working for a year, the 11 members of TG100 came up with a systems approach to QA management, with a goal of supporting staff and equipment. After explaining the method they used to formulate some key components, the task group came up with a set of updated recommendations.

Robert McTaggart

Photos courtesy of Gen Roessler

Robert McTaggart, PhD, from South Dakota State University, spoke on his fellowship at the National Aeronautics and Space Administration (NASA) working with GEANT4 software. His technical talk, "Using the GEANT4 Simulation Toolkit to Model the Detection of Solar Particles in a Space Environment," focused on technology, methods, and materials for building a neutrino detector for use in space. He also talked of many challenges that he encountered as he worked with the highly advanced software.

"Boron: Isotope Enrichment and Commercial Markets" was the topic of discussion covered in great detail by Kevin Cook, PhD, from Ceradyne Inc., a 3M company out of Oklahoma. Cook centered his talk on the two stable boron isotopes, ^{10}B and ^{11}B. Mineralogy, mining, and uses of the two boron isotopes filled the majority of his technical talk. Both boron isotopes have multiple uses, such as nuclear power, storage of spent fuel, neutron detection, oil and gas exploration, and semiconductors. Boron isotope separation was started during the Manhattan Project, and it seems there will be multiple uses for it in the future.

A radiation instrument kit demonstration by Mike Lewandowski, CHP, provided a great finale to the fall 2016 meeting. Lewandowski, of 3M's corporate Health Physics Department, demonstrated an

educational toolkit that is designed to help students of various levels understand the basics of radiation. This kit can be used by many educational staff such as math, science, and physics teachers; Boy and Girl Scout leaders; etc. The only cost to use the kit is return shipping. It is a great resource that is available to everyone in the NCCHPS. Please contact Mike Lewandowski to reserve the kit.

New England Chapter

Michael C. Talmadge, CHP, President

The New England Chapter of the Health Physics Society (NECHPS) is pleased to announce that the 2016 Vendor Social will be held on Wednesday, 7 December 2016, at the Kowloon Restaurant at 948 Broadway in Saugus, Massachusetts. The event begins with a cocktail reception at 5 p.m. to be followed by dinner and a raffle sponsored by our affiliate members. More information and registration information can be found on the NECHPS website. The registration deadline is 23 November. We hope to see you at the social!

Section News

Medical Health Physics Section

Linda Kroger, President-elect

Plan for Midyear Meeting Special Session

With the 2017 Health Physics Society (HPS) Midyear Meeting in Bethesda, Maryland, on 22–25 January fast approaching, the Medical Health Physics Section (MHPS) wants to let everyone know that we have scheduled the whole-day special session "Regulations and Guidelines on Patient Radiation Protection." The plan is to have 12 presentations (30 minutes each) followed by discussion. Since the meeting is being held in a location close to many of the organizations and regulatory bodies that impact patients and radiation protection, we have the luxury of access to many key players and presenters. The tentative agenda includes speakers from organizations such as the National Council on Radiation Protection and Measurements, U.S. Nuclear Regulatory Commission (NRC), U.S. Food and Drug Administration, U.S. Environmental Protection Agency, National Institutes of Health, American Association of Physicists in Medicine (AAPM), and American College of Radiology. Anticipated presentations will cover:

- International basic safety standards.
- Why epidemiology is an important component of radiation protection standards.
- NRC outreach and patient safety culture.
- Other federal guidance on patient safety.
- Tracking and estimation of organ doses in x-ray imaging.
- Estimation of organ doses in radionuclide imaging.
- Safety of medical devices in patient protection.
- When regulations interfere with medical care.
- Establishing medical image acquisition protocols.
- Impact of accreditation programs on patient safety.
- Consequences of radiation therapy overexposures and underexposures.
- Role of the radiation safety officer in the hospital.

We are also pursuing a special MHPS session at the 2017 HPS Annual Meeting in Raleigh, North Carolina. One possible focus is "Roles of Medical Physicists and Health Physicists in the Clinical Arena." If this topic is chosen, MHPS would coordinate with AAPM and invite AAPM members to participate. Suggestions for alternate topics and speakers are welcome, keeping in mind that the final decision on a topic area has to be made by the first of the year.

The MHPS board has instituted monthly conference calls to address the section's numerous ongoing activities. If you have items or issues that you feel should be brought to the attention of the board, please let us know by emailing MHPS Secretary-Treasurer Peter Sandwall or MHPS President Cari Borrás at hpsmedsec@gmail.com.