* Dinner Meeting Announcement *
Tuesday, May 9, 2017

The Baltimore-Washington Chapter
of the Health Physics Society Presents:

Eric Abelquist, CHP, PhD
President-Elect, Health Physics Society and
Executive Vice President, Oak Ridge Associated Universities

“Thoughts on Radiation Safety Programs if LNT Hypothesis is Abandoned”

Location
Far East Restaurant
5055 Nicholson Lane, Rockville, MD 20852
301-881-5552
http://fareastrockvilletmd.com

Agenda
6:00 pm: Social hour, cash bar
7:00 pm: Dinner
8:00 pm: Speaker: Eric Abelquist

Cost:
Members: $30, Non-Members: $35, Students: $10

Menu:
Vegetable Spring Rolls, Variety of Szechuan and Mandarin Vegetarian, Chicken, Beef and Seafood Entrees served family-style, Fortune Cookies, Tea, Cash Bar

RSVP:
We’d like to get a rough head count by noon Monday, May 8, so please register online at http://bwchps.wildapricot.org/event-2475456 or email Matt Mille at mmille1@gmail.com.

Parking:
Free parking is available at the restaurant.

METRO:
The White Flint station (Red Line) is approximately a 10 minute (0.5 mile) walk from the restaurant.

Talk Abstract:
Health physicists are specialists in radiation safety, effectively balancing the risks and benefits from activities that involve radiation. The International Commission on Radiological Protection (ICRP) introduced the radiation protection principles of justification and optimization—i.e., no practice involving exposures to radiation should be adopted unless it produces sufficient benefit to the exposed individual (or society) to offset the detriment it causes; optimization requires that the likelihood of incurring exposures, the number of people exposed and the magnitude of their individual exposure should be kept as low as reasonably achievable (ALARA). The linear-non-threshold model (LNT) is responsible for the ALARA principle. LNT assumes a linear dose–response relationship for the induction of cancer and heritable effects, according to which an increment in dose induces a proportional increment in risk, even at low doses. As such, the LNT conveys the message that there is no safe level of radiation dose. LNT is responsible for exaggerated risks at low doses and has resulted in spending limited societal resources to reduce exposures unnecessarily.

What if the radiation safety community abandoned LNT? It likely won’t happen anytime soon (if at all), but it’s constructive to consider how the health physics profession would deal with this game-changer. Abandoning the LNT model radically changes our radiation protection paradigm—if a threshold exists, and low doses of radiation below the threshold are indeed safe, then there is no benefit for driving radiation doses below the threshold (dose limit). In this “no-LNT” scenario, an effective radiation safety program protects against adverse health effects via compliance with appropriate dose limits, with no additional requirement to ensure doses are as low as reasonably achievable. However, we can define a new “ALARA” concept that is
used to establish the level (perhaps an administrative dose limit) below the dose limit that is reasonable to achieve—i.e., ALARA serves as a mechanism for setting administrative limit to ensure compliance with dose limits.

About the Speaker: Eric Abelquist is a native New Engander. He graduated from Torrington High School in Connecticut and earned BS and MS degrees in radiation sciences from the University of Massachusetts Lowell. He conducted Department of Energy (DOE) fellowship research at Brookhaven National Lab, which led to a month-long, whole-body-counting mission in the Marshall Islands. Eric worked at the DOE Pinellas Plant and then managed decommissioning projects for Nuclear Energy Services prior to joining Oak Ridge Associated Universities (ORAU) in 1993. Eric began his career at ORAU as a project leader responsible for conducting characterization and independent verification surveys at DOE and Nuclear Regulatory Commission decommissioning sites. He later served as the survey program’s associate director, contributing to the development and implementation of the Multiagency Radiation Survey and Site Investigation Manual (MARSSIM) and helping to develop the first MARSSIM training course. Eric joined the HPS in 1988 and was elected to the Board in 2003. He has been a member of the East Tennessee Chapter of the HPS since 1993, serving as chapter president in 2001. Eric became a certified health physicist in 1996 and was first president of the HPS Decommissioning Section in 1999. In 2008, he received a PhD in nuclear engineering from the University of Tennessee Knoxville. Eric continues to provide technical assistance in various aspects of decommissioning surveys. He wrote the textbook Decommissioning Health Physics: A Handbook for MARSSIM Users in 2001, which he updated in the second edition in 2014. Today, Eric is the executive vice president at ORAU, where he works in collaboration with the president and chief executive officer to oversee key strategic initiatives, community engagement, and best business practices. Eric and his wife Sandy live in Knoxville and have three children, two grandchildren, and two French bulldogs.

Please consider personally inviting a friend or colleague to join us for this meeting!