The NCCHPS March 2017 Dinner Meeting

Thursday, March 16, 2017
Michael’s at Shoreline, Mountain View
6 pm Social / 7 pm Dinner / 8 pm Announcements and Technical Presentation

Thoughts on Radiation Safety Programs if LNT Hypothesis is Abandoned

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 W. Abelquist, PhD, MBA
Executive Vice President, Oak Ridge Associated Universities
President-Elect, Health Physics Society

Dr. Eric W. Abelquist, ORAU Executive Vice President works in collaboration with the President/CEO promoting collaboration between ORAU and its university partners, DOE, ORNL, Y-12 and others. A recent UT MBA graduate, Abelquist leads entrepreneurial and innovative initiatives that develop business growth for the organization. He works with the President/CEO in formulating organizational strategic objectives, overseeing key strategic initiatives, community initiatives and best business practices. Abelquist also advises the President/CEO on scientific and engineering issues that advance scientific research and education opportunities. He received a PhD in nuclear engineering from UT Knoxville, and BS and MS degrees in radiation sciences from the UMass-Lowell. Abelquist is President-elect of the Health Physics Society, working with the President to establish the strategic vision and direction for our Society, and looking forward to visiting our 30+ Chapters.

Abelquist began his 20+ year career at ORAU as a project leader responsible for overseeing a team of health physics technicians and conducting characterization and independent verification surveys at the Department of Energy’s (DOE) and Nuclear Regulatory Commission’s (NRC) sites. He later worked for many years as the survey program’s associate director where, most notably, he contributed to the development and implementation of the Multiagency Radiation Survey and Site Investigation Manual (MARSSIM), and developed the first MARSSIM training course that has now been offered nearly 100 times. Abelquist continues to provide technical assistance in various aspects of decommissioning surveys and has published a textbook entitled Decommissioning Health Physics: A Handbook for MARSSIM Users in 2001, with the 2nd ed. recently published (2014).
News from the Burton J. Moyer Memorial Fellowship Committee

The Burton J. Moyer Memorial Fellowship Fund (BJMMFF) was established by NCCHPS to provide financial support to a full-time graduate student in health physics. It has been continuously awarded since 1985. The Burton J. Moyer Memorial Fellowship is the most prestigious fellowship in the field of health physics with an annual award of $10,000.

For the 2016/2017 Academic year Burton J. Moyer Memorial Fellowship was awarded to Taiee Ted Liang. The list of all 31 Burton J. Moyer Memorial Fellowship Award recipients is posted on the NCCHPS website under Moyer Fellowship link.

The Burton J. Moyer Memorial Fellowship (BJMF) Committee consists of a Chairperson and at least two Members. Under the supervision of the NCCHPS Board of Directors, the BJMF Committee is responsible for all activities relating to the Burton J. Moyer Fellowship Fund, the selection of NCCHPS recommendation for the BJMF Award recipient, and any other activities authorized by the NCCHPS Board of Directors. The selection of BJMF Award recipient takes place in March-April timeframe.

We are currently seeking one or two candidates to join the BJMF Committee. If you are interested, please contact Radoslav Radev (radev1@llnl.gov or (925) 422-3044).

For the past year we had several donations to the Burton J. Moyer Memorial Fellowship Fund: $500 from Vanguard Charitable Fund (John and Elsa Nimmo), $200 from Mike Grissom, $150 from Charles Schmidt, $10 from Paul Swearingen and $10 from Lydia Tai. Thank you very much for your generous donations.

Burton J. Moyer Memorial Fellowship Fund monies are invested into 7 Fidelity mutual funds and one money market account. As of February 21, 2017, the value of BJMMFF investments totals $128,620 thanks to the favorable market conditions. BJMMFF is governed by NCCHPS Bylaws and these monies are separate from the NCCHPS operational funds.

Burton J. Moyer Memorial Fellowship Fund DONATIONS:

We appreciate any donations to BJMMFF, the donations are tax deductible.

Checks payable to NCCHPS may be sent to our treasurer, with the notation “For the Moyer Fund” or you can contribute when you pay for your dinner meeting with one combined check. You may indicate if you wish your donation to remain anonymous.

Radoslav Radev, Chairperson, NCCHPS Burton Moyer Fellowship Committee
Dear NCCHPS members,

By now, you’ve no doubt noticed that we’re using the MailChimp email distribution system to send announcements from admin@ncchps.org. Each email also includes a link for you to update your own email preferences, as shown below:

![Email Preferences](image)

This system also comes with a built-in archive, which you can access by clicking “View this email in your browser” at the top of each email and then clicking on “Past Issues.”

I hope this system helps improve our communications with you and keeps you better informed of what’s happening in our community. As always, if you have job postings or other announcements you’d like to share, please send them in to admin@ncchps.org.

I’d also like to provide an update on our upcoming elections. I’m pleased to report we’ve had several members volunteer, but we are still seeking 1–2 more members for the Nominating Committee and at least 4 more to run for office. Please see below for descriptions of these positions and contact any current board member if you would like to volunteer.

**Nominating Committee:** A temporary committee, comprised of one Chairperson and 2–3 additional members, responsible for finding at least two candidates for each open position on the upcoming ballot. The list of candidates will need to be finalized by mid-March so that ballots can be prepared in early April.

**Member-at-Large (2-year term):** The first year, you manage the logistics for our dinner meetings (find and book the venue and catering). The second year, you manage the presentation setup at the dinner meetings (computer, projector, and sound for the technical presentation).

**Secretary (2-year term):** You maintain minutes of board meetings, manage the membership list including renewal of dues payments, organize the annual election, help members check in and make payments at dinner meetings, and provide periodic updates for the HPS monthly newsletter and annual report for the HPS website.

**President-Elect (total 3-year term):** The first year, as President-Elect, your main responsibility is to find and schedule speakers for our dinner meetings, provide speaker biography and topic summary for the newsletter and website, and introduce the speaker before the presentation. The second year, as President, you ensure the dinner meetings run smoothly, manage communications with national HPS contacts, and do whatever else needs to be done. In the third year, as Past-President, you remain on the Board of Directors for continuity and fill in for others as needed.

I’ve personally found serving on the NCCHPS Board to be a great experience, and I highly encourage you to consider volunteering. If you’re a newer member, it’s an excellent way to get involved, and if you’ve been with us for a while, then it’s your turn to help keep us one of the most active HPS Chapters!

See you at our next meeting!

**Lydia Tai, President**
**NCCHPS**
NCCHPS NOMINATING COMMITTEE MEMBERS WANTED

We are seeking volunteers for the Nominating Committee and must have two candidates for each position by mid-March. If you are interested in serving on this committee, or if you are interested in being a candidate, please contact any current board member to volunteer. This year, we are seeking candidates for President-Elect, Secretary, and Member-at-Large. Remember, volunteering for the Nominating Committee guarantees that you won’t receive a call asking (begging) you to run as a candidate!

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All members owing their $10.00 dues for the year 2017 should have received a Dues Notice via email or USPS. Please remember you may pay your dues in cash, check, or credit card at our upcoming March meeting. If you are unable to attend the March meeting, you may send a check payment to our mailing address at:
NCCHPS
4435 First Street #141
Livermore, CA 94550

If you have not received a Dues Notice, or have any questions regarding yours, please contact the NCCHPS Secretary, Maranda Cimeno, at mcimeno@slac.stanford.edu. Thank you!
### Upcoming NCCHPS Meetings...

- March 16, 2017
  - HPS President Elect
  - Eric Abelquist

- May 18, 2017
  - Affiliates Night

**Mailing Address:**
NCCHPS
4435 First Street #141
Livermore, CA 94550

**Email:**
nccchps@gmail.com

**Website:**
http://hpschapters.org/ncchps/

**Newsletter Editor:**
Warren TenBrook
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(925) 423-1470

**Affiliate Liaison:**
Nelson Chiu
ncchpsaffiliatecontact@gmail.com
(414) 559-5586

### The Next NCCHPS Meeting!

**Thursday, March 16, 2017**
6:00 – 7:00 pm no-host meet & greet
7:00 – 8:00 pm dinner
8:00 pm announcements and presentation.

Michael’s at Shoreline
2960 North Shoreline Blvd,
Mountain View, CA 94043
(650) 962-1014

Please visit the website for information on transportation and parking.

**Buffet Menu:**
- **Salad (all veggie)**
  - Spring Mix Greens
  - Caesar
  - Tomatoes and Cucumber Vinaigrette
  - Antipasto
- **Entree**
  - Spinach and Cheese Tortellini (veggie)
  - Breast of Chicken, Marsala
  - Sirloin Tips
  - Roasted Potatoes (veggie)
- **Desert**
  - Ice Cream

Only online registrations accepted. Register by 10 pm Wed, March 8, 2017 at:
http://hpschapters.org/ncchps/docs/pages/meetings.html

NCCHPS members $30 ($35 @ door)
NCCHPS guests $35
Students $10
Non-members $40

Contact Member-at-Large Paul Swearingen ONLY if you encounter difficulties using the form: swearingen.paul@gene.com

Please note that in order to avoid unnecessary costs to the Chapter, you may be charged for no-shows. Cancellations may not be made after the RSVP deadline.

### 2016-2017 NCCHPS Board Members:

**President**
Lydia Tai
Tai4@llnl.gov
(925) 422-0475

**President-Elect**
Ibrahim Ozcan
iozcan@lbl.gov
(510) 495-2842

**Past President**
Greg Jones
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**Secretary**
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(650) 926-7978

**Treasurer**
Chad Hopponen
hoppyinhi@gmail.com
(925) 422-7128

**Member-at-Large**
Paul Swearingen
swearingen.paul@gene.com
(650) 255-3088 (work)

**Member-at-Large**
Craig Maxwell
Craig.maxwell56@outlook.com
(415) 264-2983