

# NCCHPS

Northern California Chapter-Health Physics Society

September 2013



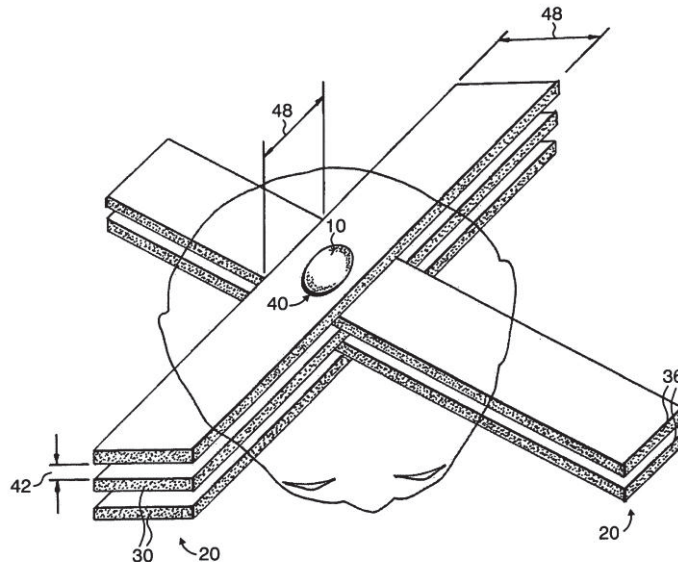
## *The NCCHPS September 2013 Meeting*

*Thursday, September 19, 2013*

*Pyramid Alehouse, Berkeley*

*6 pm Social - 7 pm Dinner - 8 pm Presentation*

## Introduction to Microbeam Radiosurgery



**Abstract:** A number of scientific studies on small animals have demonstrated the astonishing fact that healthy biological tissue can tolerate an enormous amount of dose ( $>500$  Gy) when delivered in an array of thin planes of radiation ( $<500$   $\mu\text{m}$ ), termed microbeam radiation. Although cells in the direct path of the microbeam radiation are killed, the adjacent non-irradiated tissues mount a healing response. Studies have also demonstrated that diseased tissue, such as cancerous tumors, can be destroyed by microbeam radiation via cross-firing from several directions. Thus, microbeam radiosurgery (MBRS) appears to have tremendous potential to control internal disease with zero toxicity to surrounding healthy tissue. This presentation examines the history, biology, problems, and potential solutions associated with MBRS. It is shown that a path to a clinically useful device is emerging.

**About the Speaker:** Michael Wright, Varian Medical Systems, Inc., received a Ph.D. in Applied Physics from Stanford University where he studied laser physics. Upon leaving Stanford, Dr. Wright joined the Philips Research Laboratory in Sunnyvale, working in the field of semiconductor device physics. Dr. Wright then came to the Ginzton Technology Center at Varian. He first worked on the development of an AlGaAs/GaAs heterojunction CCD as the stellar sensor for the U.S. Navy Trident II missile guidance system. Following that, Dr. Wright began research in the use of amorphous silicon for digital X-ray imagers. This work led to the generation of Varian's current portal imaging systems, and the formation of the Varian Imaging Products business unit. It also earned for Varian a R&D 100 award and a Computerworld-Smithsonian award in the field of Medicine. Dr. Wright is currently researching microbeam radiation and inverse Compton scattering radiation sources.



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## President's Message


### HPS Logo Hardware Offer from Maxx Global Concepts, Inc.

Chris Hawley from Maxx Global has a few boxes of Nighthawk Cree LED flashlights engraved with the HPS logo that he has not yet sold. He has reached out to the Chapters to offer reduced pricing to clear out his inventory. Each of these flashlights is powered by a 3-watt high intensity LED which has 165 Lumens of power that can shoot a beam over 200 feet. They take 2 D-cell batteries and are 10" in length and come equipped with the Police barrel holster. These Flashlights retail for \$69.99, however, as these are already logo'd, will be willing to offer them to you at our cost of **\$20/pc**. They will honor a flat rate shipping fee of 10% to anywhere in North America. **They will also engrave the chapter logo or location details on the other side of the flashlight head at no charge.**

That being said, I thought if there was enough interest, we may be able to submit a group NCCHPS order for these. Please contact me directly ([dillon10@llnl.gov](mailto:dillon10@llnl.gov)) if you are interested and I will coordinate the order.


*Jon Dillon*  
*NCCHPS President*

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HEIR  
2013

11TH INTERNATIONAL CONFERENCE ON THE  
HEALTH EFFECTS OF INCORPORATED RADIONUCLIDES

OCTOBER 13-17, 2013  
CLAREMONT HOTEL, BERKELEY, CA

We are pleased to announce the opening of registration for the **11th International Conference on the Health Effects of Incorporated Radionuclides (HEIR 2013)**. Online registration:

<http://actinide.lbl.gov/HEIR2013>

We look forward to an exciting meeting in Berkeley in October 2013!

<p><b><i>Upcoming NCCHPS Meetings...</i></b></p> <p><b>September 19, 2013</b></p> <p><b>November 21, 2013</b></p> <p><b>January 16, 2014</b></p> <p><b>March 20, 2014</b></p> <p><b>May 15, 2014 Affiliate Night</b></p> <p><b>Mailing Address:</b> NCCHPS 4435 First Street #141 Livermore, CA 94550</p> <p><b>Email:</b> ncchps@gmail.com</p> <p><b>Website:</b> <a href="http://hpschapters.org/ncchps/">http://hpschapters.org/ncchps/</a></p> <p><b>Newsletter Editor:</b> Warren TenBrook warren@tenbrook.org (925)423-1470</p> <p><b>Affiliate Liaison:</b> Nelson Chiu ncchpsaffiliatecontact@gmail.com (414)559-5586</p>	<p><b><u>The Next NCCHPS Meeting!</u></b></p> <p>Thursday, September 19, 2013 Pyramid Alehouse Snow Cap Room (Upstairs) 901 Gilman St Berkeley, CA 94710 (510) 527-9090</p> <p><b><u>Brewmaster Buffet:</u></b> Mixed Green Salad Sautéed Seasonal Vegetables Roasted Red Mashed Potatoes &amp; Gravy Butternut Squash Ravioli w/ Sage Cream Sauce Apricot Ale Glazed Salmon Honey Cilantro Chicken w/ Salsa Fresca</p> <p>Assorted Cookies Fudge Brownies</p> <p><b>Cost (add \$1 surcharge for credit card):</b> Members     <b>\$30 (\$35 @ door)</b> Guests       <b>\$35</b> Students     <b>\$10</b> Non-members <b>\$40</b></p> <p><b><u>Deadline:</u></b> Please register by Thursday, September 12:</p> <p><a href="http://hpschapters.org/ncchps/dinner.php3">http://hpschapters.org/ncchps/dinner.php3</a></p> <p><b><i>Cancellations are not accepted after the RSVP deadline.</i></b></p> <p>Only online registrations will be accepted. Contact <a href="mailto:jimdezetter@berkeley.edu">jimdezetter@berkeley.edu</a> ONLY if you encounter problems with online registration.</p>	<p>2013-2014 NCCHPS Board Members:</p> <p>President Jon Dillon dillon10@lInl.gov (925)423-6167</p> <p>President-Elect Greg Jones jones88@lInl.gov (925)423-9875</p> <p>Past President Jack Topper topper1@lInl.gov (925)423-8082</p> <p>Secretary Kaitlin Engel kmengel@lInl.gov (510)486-5827</p> <p>Treasurer Melissa Mannion MCMannion@lInl.gov (510)486-4423</p> <p>Member-at-Large Jim DeZetter jimdezetter@berkeley.edu (510)643-8765</p> <p>Member-at-Large Kaylie Thompson thompson130@lInl.gov (925)422-6846</p>
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