



2007 Chapter Officers

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Welcome to the April Newsletter



March Program Meeting

The East Tennessee Chapter of the Health Physics Society held its monthly meeting on Tuesday, March 13, 2007. This was a joint dinner meeting with the ANS at Rothchild's Catering at Baron's Place, 8807 Kingston Pike in Knoxville, Tennessee.

Approximately 15 ETCHPS and 30 ANS members and guests were in attendance. The speaker of the evening was Dr. Chet Ramsey, the director of medical physics of the Thompson Cancer Center in Knoxville, Tennessee. Dr. Ramsey received his Ph.D from UT in 2000. The title of his presentation was "Image-Guided Adaptive Radiation Therapy."

Dr. Ramsey's presentation was geared toward recent developments (in the last 4 years) and included the following information:

- In 2003 cancer ranked as the #2 cause of death just behind heart disease. However, estimates predict that cancer will soon surpass heart disease.
- Over the years, death rates have been cut in half for heart disease, influenza, and cardiovascular disease but death rates for cancer remains constant. Although some cancers are now more curable, such as breast cancer, there are more cases of other cancers such as lung cancer.
- Lung cancer ranked #1 for cancer deaths for both men and women in 2003 (only a 5-yr survival).
- The latest estimates are that prostate cancer will be the #1 type of cancer in men and breast cancer will be #1 in women; both followed by lung cancer.
- Sixty percent of new cancer cases will be treated by External Beam Radiation Therapy.
 - Patients typically treated using external marks on the body.
 - Problem is that internal processes can vary the position of cancer cells.
 - Custom immobilization devices (ex. body molds for head and neck) can be fabricated.
- In conventional therapy, the position of the patient is verified using orthogonal radiographic imaging only on a weekly basis. Thus the need for Image-Guided Radiation Therapy – where the imaging data is acquired on the treatment table.

Mr. Ramsey gave great examples of just how much a patient can move during a treatment session.

To date the center has treated 33 head and neck patients using image-guided therapy. They have 100% survival.

Mr. Ramsey's specialty is lung therapy. The 5-yr survival rate is 15% compared to 100% for prostate cancer.

Tumor response to treatment:

- Many tumors swell before they begin to shrink. If the tumor does not shrink then the doctor can switch chemotherapy or increase the dose.

Predictive Adaptive Therapy – using non-parametric empirical models.

- Goal is to be able to predict what will happen to the tumor volume in the initial few treatment sessions so that treatment can be modified when necessary.

Conclusions were that the Thompson Cancer Center's image-guided therapy results show a dramatic improvement to survival as compared to conventional radiation therapy, as well as a decrease in toxicities.

The presentation was followed by a question and answer session. Mr. Ramsey was graciously thanked for his presentation and the meeting was adjourned.

Upcoming ETCHPS Meetings

April 17 , 2007 -

Speaker will be Grant Ashley, electrical engineer with Bechtel Jacobs at K-25 - qualifying criticality instruments for operation in intense radiation fields.

Location is the Sagebrush Steakhouse in Oak Ridge. The social period will begin at 5:30 with dinner served at 6:00. The speaker is scheduled to begin at 7:00.

May 15, 2007 -

Speaker will be Joe Alvarez, ETCHPS President-Elect - new developments in detection limits.

Location is TBD.

Safety Image of the Month

Don't forget the sunscreen when working or playing outdoors.

The worst sunburns happen when you least expect it!



sunscreen warning

Member Database

The new member online database is up and running. All active members (those who are current with 2006 and/or 2007 dues) should have received an email alerting you that your name and email have been added to the database and you have been approved for membership. You will need to login to verify/update your information using the username listed in the email along with your old website login password. If you forgot your old password, click on the 'Forgot your password?' tab on the member database login screen and an email will be sent to you. If you cannot log-in please email Erika Bailey (baileri@aol.com).

However, several members still do not have an online account. If you are a member and do not have an online account - please go to the [New Member Online Application Link](#) and fill out a new application. Even though technically you are already a member, this is the only way to be added to the new online database. Once you do this you will begin receiving all newsletter and meeting notices by email.

If you are not currently an active member, you can pay your dues and become active quite easily...

Dues Information

The chapter requests all 2007 dues by March 31, 2007 - please send them in immediately if you are past due.

Emails have been sent to past due members (that is if the Secretary had your email). If you are unsure if you have paid your 2007 dues please email the chapter Secretary [Erika Bailey](#).

At this time please pay dues via check.

To send in your dues via the USPS, please make your check payable to: ETCHPS, and address your envelope to:

ETCHPS
P.O. Box 7006
Oak Ridge, TN 37831-7006

Due fees are as follows:

Plenary	\$15.00
Fellow	\$15.00
Student	\$ 7.50
Member Emeritus	\$ 7.50
Life Member	No Dues

Thanks for your support.

Erika Bailey
ETCHPS Secretary