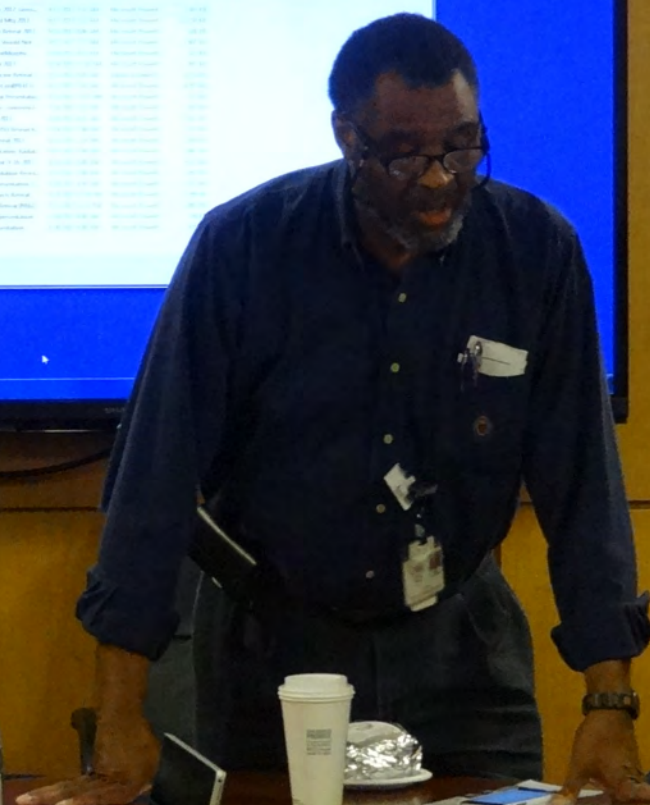
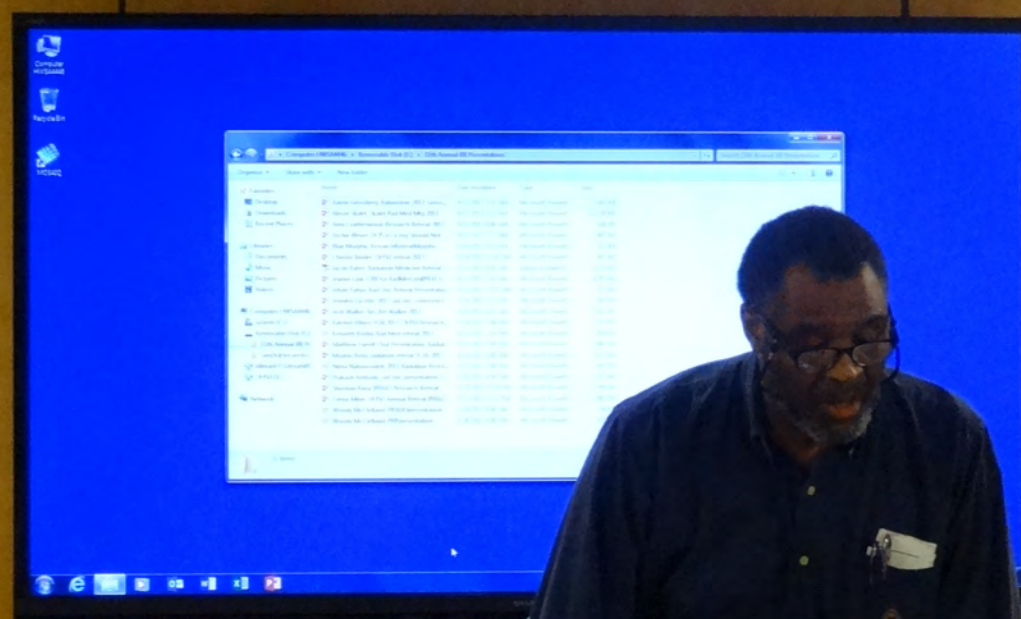




Acknowledgements

OHSU

Yan Li
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Yali Jia
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Arthur Hung
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Charles Thomas

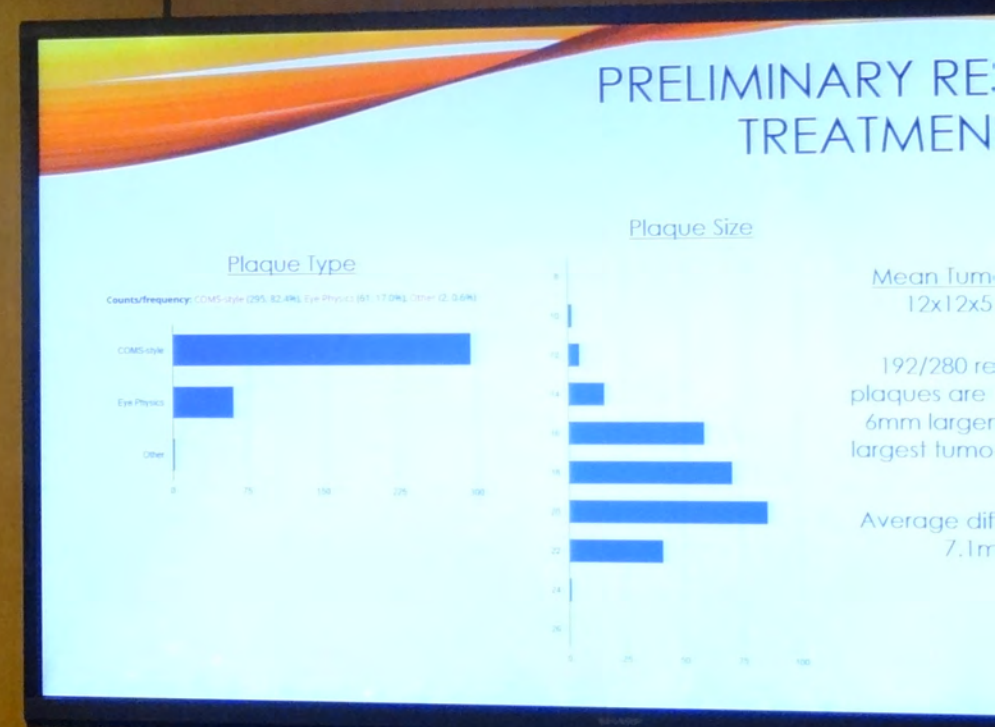
MIT

Chen Lu
ByungKun Lee
James Fujimoto

University Erlangen Nuremberg

Lennart Husvagt
Andreas Maier







When you are finished - Whiteboards are erased every Friday - Thank you!

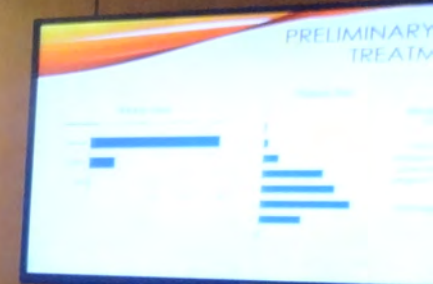
Trans GAB

consult Tx
Cable
Setup
Image Review
Troubleshooting

QA
CHECK
Tx
Secondary
1st to check
Final check

Please erase boards when you are finished. Whiteboards are erased every Friday. Thank you!

What do you like about working for OHSU?





Dissecting the effects of high dose
radiation on the vasculature







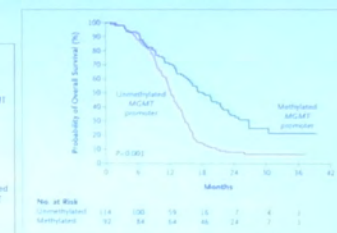
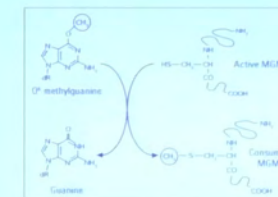


THE ROLE OF RADIOTHERAPY IN REVERSING TUMOR-ASSOCIATED T CELL ANERGY AND EXHAUSTION

Josh Walker, MD/PhD, OHSU Radiation Medicine



O⁶-methylguanine methyltransferase (MGMT) Prognostic biomarker in Glioblastoma

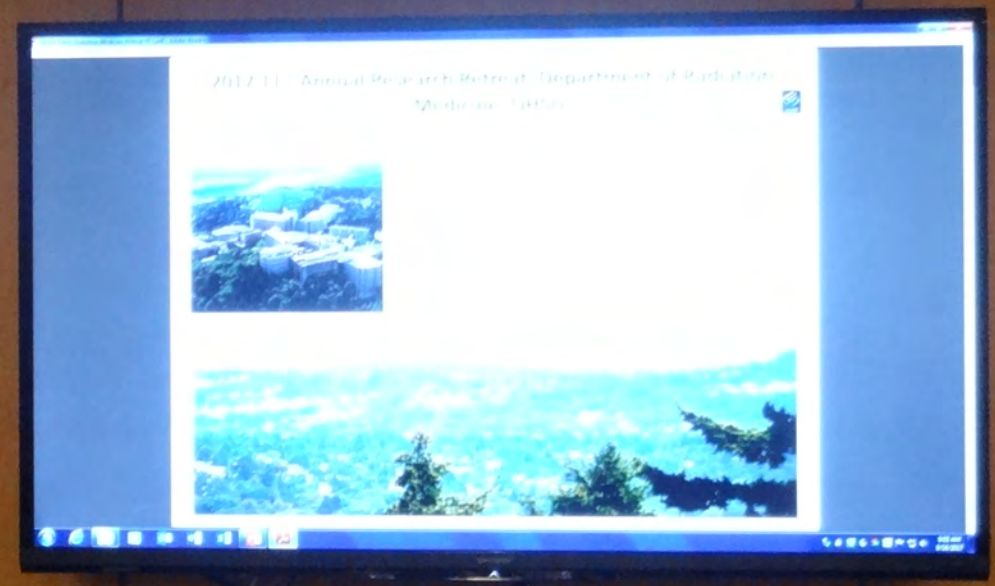
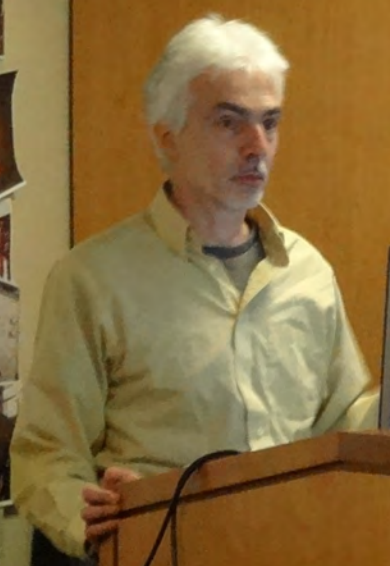


- 45% methylated

- In those that received radiation and Temozolamide
 - MGMT methylated: 46% alive at 2 Yr
 - MGMT Unmethylated : 13% alive at 2 Yr

Hegi ME et al. N Engl J Med 2005;352:997-1003.

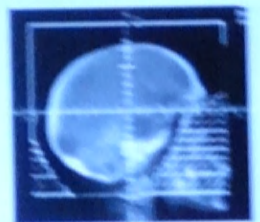
...ed every Friday - Thank you!





Brain radiation-induced fatigue

- 200,000 patients/year
 - Brain metastasis
 - Primary intracranial tumor
 - Pediatric brain tumors
- >90% of patients report fatigue
- Cognitive impairment
- Growth Restriction
- Metabolic dysregulation





OREGON
HEALTH & SCIENCE
UNIVERSITY



LOYOLA
UNIVERSITY CHICAGO

STRITCH SCHOOL of MEDICINE

Radiation Dose and Fractionation for Limited-Stage Small Cell Lung Cancer: A Survey of US Radiation Oncologists on Practices

Matthew J. Farrell¹, Jehan Yahya¹, Catherine Degnin¹, Yiyi Chen¹, John M. Holland¹, Mark A. Henderson¹, Jerry J. Jaboin¹, Matthew M. Harkenrider², Charles R. Thomas Jr.¹, Timur Mitin¹

1 – Oregon Health & Science University, Portland, OR

2 – Stritch School of Medicine, Loyola University Chicago, Chicago, IL

Alternating electric field therapy
as alternative to brain irradiation
in patients with
Small Cell Lung Cancer

Timur Mitin, MD PhD
Department of Radiation Medicine
11th Annual Research Retreat
September 16, 2017

PURPOSE

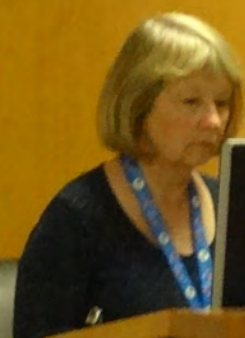
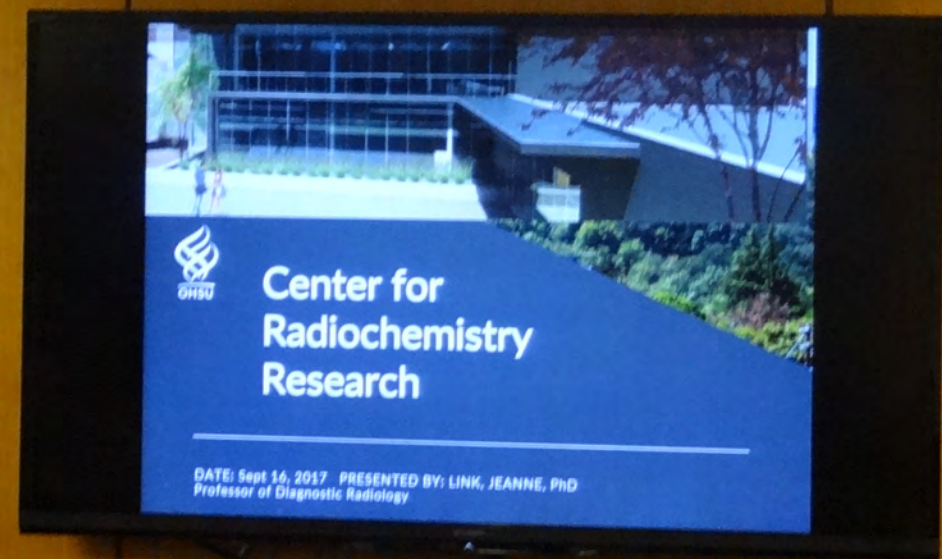
- >50% of patients with advanced melanoma will eventually develop brain metastasis
- Anti CTLA-4 and anti-programmed cell death-1 (PD-1) antibody therapies improve survival of patients with metastatic melanoma.
- Therapeutic interactions between SRS and immunotherapy have yet to be optimized

PRECISION MEDICINE: identifying

pathways that make hypoxic tumors
combinations of molecular agents and

- Radiation enhancement by direct sensitizer
 - Targets: PARPi, repair inhibitors
 - Antiangiogenic agents, sorafenib
- Drug's effectiveness is reduced by hypoxia
 - Bleomycin, trastuzumab, gefitinib, imatinib
- Determining sequencing of drug/radiation
 - Checkpoint immunotherapy affects radiation response
 - Rads most effective at G2/M; most resistant at G1
 - Also cycle-selective drugs such as 5-FU

MESSAGE: let's redefine radiation effects
types of radiation-based combination therapies



The darkest hour is just before the dawn

- Radiation license ~4/2016
- First IND -FLT 4/2017
- Radiopharmacist Joined team 5/2017
- FDA registration manufacturer 6/2017
- License with OBOP - manufacturer + nuclear pharmacy 8/2017
- Approval human IND manufacture by Rad. Protection 9/2017.
- 2nd. IND submitted, first DMF to send
- ASAP add manufacturing / Nuclear Pharmacy to Rad. License
Instrumentation / data analysis.
- Data analysis room, (SPECT/PET/CT SARIC), PET/CT
 - PET- MR, PET / SPECT ONPRC ~ 1 yr, GE / flat table?
 - Research Nuc Med partners - Stevens- Mallak, Mitra

We can finally do human studies and soon will be able
to do state of the art imaging.

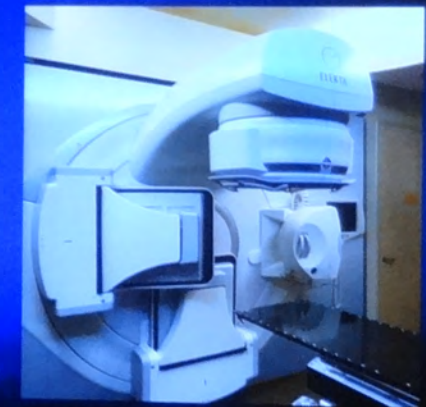
Is Survivorship Care Plan Discussion Important to Patients?

PRESENTED AT THE ASCO 2ND ANNUAL SURVIVORSHIP SYMPOSIUM
SAN DIEGO, CA, JANUARY 27-28, 2017

AMY E.B. LEATHERWOOD
DEPARTMENT OF RADIATION MEDICINE
SURVIVORSHIP NURSE PRACTITIONER
INSTRUCTOR
M.D., UNIVERSITY OF SAN FRANCISCO, 2009
SPECIALTY TRAINING: UPPER GI SURGERY, UROLOGY, CANCER SURVIVORSHIP
CURRENT AREA OF EXPERTISE: CANCER SURVIVORSHIP

11th Annual Research Retreat for the Dept. of Radiation Medicine, 9/16/2017

Jennifer Lycette, MD
Knight Cancer Institute, Community
Hematology Oncology
Assistant Professor
Medical Director, Medical Oncology
Services, Columbia Memorial Hospital /
OHSU Cancer Care Collaborative
MD, University of Washington, 2000
Residency, Internal Medicine, BIDMC, 2003
Fellowship, Hematology & Medical Oncology,
OHSU, 2006
Current areas of expertise: community oncology,
rural oncology, narrative medicine



Background

- There had been a significant paucity observed in large academic radiation oncology programs in providing palliative care to hospitalized cancer patients
- To combat this deficiency, several programs have been initiated to address this issue (Tseng et al., Pract Radiat Oncol 2014; Stavas et al., Pract Radiat Oncol 2017)
 - Supportive and Palliative Radiation Oncology (SPRO) service at Brigham and Women's Hospital (started in 2011)
 - Inpatient Palliative Radiation Oncology Service at Vanderbilt University Medical Center
 - Supportive Oncology and Palliative Radiotherapy at the University of Pennsylvania

Association of Pre-Residency Peer-Reviewed Publications with Radiation Oncology Resident Choice of Academic Versus Private Practice Career

Shearwood McClelland III, M.D.

Department of Radiation Medicine
Oregon Health & Science University
Portland, Oregon