# American Association of Physicists in Medicine Ohio River Valley Chapter



Program
October 12-13, 2012
Indianapolis, IN



## **AAPM ORVC Fall 2012 Symposium Program**

Friday, Oct 12 <sup>th</sup> — Indianapolis Zoo Dolphin Adventure Gallery 1200 W. Washington St. Indianapolis, IN, 46222 Tel: (317) 630-200	
6:30 pm to 6:45 pm	Poster session setup
6:30 pm to 7:00pm	Reception and "Meet & Greet" social, then dinner seating
7:10pm to 7:50pm	"Technologies of the Modern Digital Linear Accelerator: Revolutionary Beamshaping" - Wayne A. Avren, Elekta "Transitioning to TG-142" – Rebekah Hansen, Standard Imaging
7:50pm to 8:00pm	Break
8:00 - 9:00pm	"CyberKnife and TomoTherapy, Recent Advancements to Each Platform" –  Jason Brooks, Accuray  "Acquiring, Mining and Reporting the Radiation Dose Data from a Vendor's  Perspective"- Steve Massey, PHS Technologies Group  "Mishaps in radiation oncology and strategies for avoidance" - Steven A.  Gasiecki, MS, DABR, Landauer
9:00pm to 10:30pm	"Meet & Greet" social continued, cash bar, tour of Dolphin Adventure Gallery

#### **POSTER PRESENTATIONS:**

#### **History of AAPM Ohio River Valley Chapter**

Minsong Cao, PhD, UCLA

#### **Patient Positioning for HDR Brachytherapy**

Eric Slessinger, Indiana University

#### 3T versus 1.5 T MR in target definition for malignant gliomas: Is there a significant difference?

M. Lamba, J. Guarnaschelli, A. Vagal, C. McPherson, R. Warnick, M. Gaskil-Shipley, W. Barrett, J. Breneman, S. Offerman, M. Johnson. University of Cincinnati

#### **Accelerated 31P Liver Magnetic Resonance Spectroscopic Imaging**

Tony Clevenger, Anshuman Panda, Keith Heberlein, Radhouene Neji ,Ulrike Dydak, Purdue University

### Impact of body position on fluid content and intramyocellar lipid concentration in human calf muscle

Weston Brander, Scott Jones, Travis Conley, Drew Sayer, Jing Zhou, Steven Fisher, Wayne Campbell, Ulrike Dydak, Purdue University

## A spatially resolved Evaluation of Radiation induced metabolic response in normal and malignant liver with 3D 31P MRSI

Scott Jones, Anshuman panda, Higinia Cardenes, James Fletcher, Gary Hutchins, Ulrike Dydak



Quantitative assessment of the source attenuation for the new CT-compatible titanium Fletcher-Suit-Delclos (FSD) gynecologic applicator

Neelu Soni, E. Ishmael Parsai, Diana Shvydka, Bhoj Gautam, University of Toledo

Determination of Radiation and Thermal Dose Distributions for Novel Thermo-Brachytherapy Seeds in Clinical Implantations

G. Warrell, Diana Shvydka, B. Gautam, and E. Ishmael Parsai, University of Toledo

Experimental Study of the Radiation Dose Enhancement at the Gold-Tissue Interface for Nanoparticle-Aided Radiation Therapy

Nava Paudel, Diana Shvydka and E. Ishmael Parsai, University of Toledo

Brachytherapy Dose-volume Histogram Commissioning: Analysis with Multiple Treatment Planning Systems

Michael S. Gossman, Tri-State Regional Cancer Center, Ashland, KY

Clinical Evaluation of Positioning Accuracy of Two Immobilization Devices for Stereotactic Body Radiotherapy Using Cone Beam CT

Cao M, Cao N, Cardenes HR, Fakiris AJ, DesRosiers CM, Das IJ., Indiana University

Beam Transmission Dependence on Pacemaker and Defibrillator Orientation

Christopher M. Blohm, Michael S. Gossman, University of Louisville & Tri-State Regional Cancer Center

### **Special Acknowledgements**

We would also like to thank current AAPM President-elect <u>John D. Hazle, Ph.D., DABR, FAAPM</u> of The University of Texas MD Anderson Cancer Center, for arranging his time to travel across the country and speak with us. Thank you Dr. Hazle!



# **Educational Program**

<b>Saturday, Oct. 13</b> <sup>th</sup> – University Place Conference Center and Hotel at the Indiana University		
850 W. Michigan St., Indianapolis, IN 46202 <i>Tel</i> : 317.269.9000		
7:00 am to 8:00 am	Vendor Exhibit Setup	
7:30 am to 8:20 am	Continental Breakfast (Provided) / Vendor Exhibits	
8:20 am to 8:25 am	Symposium Launch by AAPM ORVC President Minsong Cao, Ph.D., DABR – Indiana University	
8:25 am to 8:30 am	Opening Remarks by AAPM ORVC President-Elect Chris Allgower, Ph.D., DABR – Indiana University	
8:30 am to 9:25 am	James G. Kereiakes Keynote Lecture	
	"Hitting the cells and molecular targets in tumors -The life of a medical physicist"	
	Donald Chapman, Ph.D., Penticton, BC Canada.	
9:25 am to 9:45 am	Coffee Break (provided)/vendor Exhibits	
	"Biologically-based treatment planning"	
9:45 am to 10:35 am	X. Allen Li, PhD, FAAPM, Professor and Chief of Medical Physics, Medical College of Wisconsin.	
	"Normal Tissue Complications in External Beam Radiation Therapy"	
10:35am to 11:25 am	Ellen D. Yorke, PhD, FAAPM, FACMP, Memorial Sloan-Kettering Cancer Center	
11:25am to 12:15pm	"A strategic vision for medical physics and the AAPM"  John D. Hazle, PHD, FAAPM, Professor and Department Chairman, Department of Imaging Physics, UT MD Anderson Cancer Center. (AAPM President-Elect)	
12:15 pm to 1:15 pm	Lunch Break (Lunch Provided) / Vendor Exhibits	
1:15 pm to 2:05 pm	"Lessons from studying the proton SOBP back edge"	
	Marc S. Mendonca, Ph.D., Associate Professor, Director of Radiation& Cancer Biology, Indiana University	
	"Imaging Tumor Hemodynamics in Response to Therapy"	
2:05 pm to 2:55 pm	Keith Stantz, PhD, Associate Professor, School of Health Sciences, Purdue University	
2:55 pm to 3:10 pm	Coffee Break (Provided) / Optional Exhibit Breakdown	
3:10 pm to 4:00 pm	"Selective Dose Enhancement in Tumors by High-Z Nanoparticles: A Marriage	



# **Ohio River Valley Chapter**

	of Physics and Biology"
	Indra Das, PhD, FASTRO, FAAPM, FACR, Indiana University
4:00pm to 4:10pm	Adjournment/coffee break
4:10pm to 4:40pm	Business Meeting

### **Exhibitor Acknowledgements**

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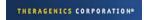
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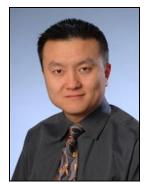
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### **AAPM ORVC Officers**



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Michael Weldon, M.S., DABR ORVC Secretary/Treasurer Ohio State University Medical Center Columbus, OH

The Ohio River Valley Chapter Officers would like to thank you for your attendance. We look forward to seeing you again at our Spring Symposium.

