Room 1: Magna Cum Laude

Room Captain: Chandra Sehgal, PhD

1. **Arterial Spin Labeling is Associated with Pathology Burden in Frontotemporal Lobar Degeneration**  
   Christopher A. Olm, MA

2. **Cell-in-Cell Phenomena are a Feature of the Adaptive Response to TAE-Induced Nutrient Stress in HCC**  
   Vinay Ayyappan, BS

3. **Deep Learning of ADC Maps from Under-Sampled Diffusion-Weighted Radially Sampled MRI**  
   Yuemeng Li, PhD Student

4. **Production of Vivid Lung Equivalent Anthropomorphic Phantoms**  
   Kai Mei, PhD

5. **GaNDLF: Generally Nuanced Deep Learning Framework for Clinical Imaging Workflows**  
   Jose I. Agraz, PhD

   Srikant Kamesh Iyer, PhD

7. **Influence of Registration Methods for Prediction of Treatment Response to NAC in Breast Cancer**  
   Snehka Thakran, PhD

8. **Feasibility and Technical Improvements of EEG-Correlated MRI During Sleep at 3T**  
   Alessandra Caporale, PhD

9. **Pre-Intervention CTA Improves Catheter-Based Intervention in Patients with Abdominopelvic Trauma**  
   J. Reed McGraw, BS

10. **Real-time Temperature Monitoring using Spectral CT in Image-Guided Microwave Ablation**  
    Leening P. Liu, BS

11. **A Deep Learning Approach to Automate Angle Measures on Lateral Radiographs for Clubfoot Management**  
    Daniella M. Patton, PhD

Room 2: Image Generation/Quantitative Imaging: MR

Room Captain: Walter R. Witschey, PhD

1. **Comparing Methods for Ultra-High Resolution Structural MR Imaging of Human Olfactory Bulb and Tract**  
   Sichen Ludwig Zhao, MS, M.Phil

2. **Quantification of Renal Metabolic Rate of O2: A Feasibility Study**  
   Rajiv S. Deshpande, BS

3. **Detecting Myocardial NAD+ using Downfield 1H MRS at 7T**  
   Sophia Swago, BE

4. **Acceleration of High-Resolution Proximal Femur Imaging using Compressive Sensing and Sparsity**  
   Brian-Tinh Duc Vu, BS Physics
5. **New Method of Estimating Static Field Inhomogeneity for MR Susceptometry-Based Oximetry**  
   Alexander M. Barclay, PhD

6. **Exploring the Use of Continuous RF Irradiation for Xenon Polarization Transfer Contrast Imaging**  
   Faraz Amzajerdian, BS

7. **Refining XTC Selectivity for Dissolved Phase HP-Xe Imaging in MRI.**  
   Tahmina Susan Achekzai, BA

8. **Comparison of T1 with Native T1 and LGE in Patients with Hypertrophic Cardiomyopathy**  
   Elizabeth W. Thompson, BS

9. **Feasibility of Local Off-Resonance Mapping from Standard Multi-Echo MPRAGE Protocols at 3 T and 7 T**  
   Alan Chu, MD, PhD

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**Room 3: Image Analytics: Basic/Translational**

Room Captain: Despina Kontos, PhD

1. **ComBat-Based Feature Harmonization to Improve Survival Prediction in Lung Cancer Using Radiomics**  
   Jose Marcio Luna Castaneda, PhD

2. **ComBat Harmonization Methods for Radiomics with Multimodal Distributions and Multiple Batch Effects**  
   Hannah Horng, BS

3. **Deformable Image Registration using Neural ODEs**  
   Yifan Wu, PhD Student

4. **Apparent Diffusion Coefficient Radiomic Metrics for Differentiation of Brain Tumors in Children**  
   Alireza Zandifar, MD

5. **Intrinsic Radiomics Phenotypes of DCI from Breast DCE-MRI: Demonstrating Feasibility**  
   J. Vivian Belenky, MS

6. **Baseline MRI and Plasma Biomarkers Predict Structural Atrophy and Cognitive Decline in Early AD**  
   Long Xie, PhD

7. **Volumetric Differences in Thalamic Nuclei of Epileptics**  
   Quinn Robert Kirkpatrick, BS

8. **Longitudinal Monitoring of Lung Transplant Recovery using Parametric Response Mapping of ΔEE and ΔEI**  
   Ryan J. Baron, BS

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**Room 4: Molecular Imaging**

Room Captain: H. Sharon Lee, PhD

1. **Metabolic Modulation for Enhanced Therapeutic Effect with Radiation on Prostate Cancer**  
   Stepan Orlovskiy, BA Biology

2. **Fluorescence Imaging of NSCLC using a cPLA2-activatable Probe**  
   Michael C. Hart, BS

3. **Detection of Metabolic Biomarkers of Response to BRAF Inhibitor Therapy of Melanoma**  
   Pradeep Kumar Gupta, PhD
4. **Quantitative Analysis of Ligand Binding in Humanized Anti-DOTA Chimeric Antigen Receptor T Cells.**  
   Osigbemhe Iyalomhe, MD, PhD

5. **Development of a Hepatocyte Spheroid Assay for In Vitro Detection of Metabolic Radiodehalogenation**  
   Jonathan M. Pham, BS

6. **Screening the Stability of Aryl Halides Towards Oxidation**  
   Tara Taghvae, PhD

7. **Tau and Neurodegeneration with 18F-Flortaucipir and 18F-Fluorodeoxyglucose PET in Alzheimer Disease**  
   Michael Duong, BA

8. **gagCEST Imaging of Healthy and OA Patients at 7T**  
   Blake A. Benyard, BS

9. **Assessing the Effects of Limb Laterality, Age, and BMI on the Metabolism of the Long Bones using FDG**  
   Peter Sang Uk Park, Medical Student

10. **Divergent Volume and Glucose Metabolism Findings in Thalamic Nuclei of Epileptics**  
    Austin L. Chien, BA

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**Room 5: Image Analytics: Translational/Clinical**

*Room Captain: Charles E. Kahn, MD*

1. **Understanding Fontan Associated Liver Disease (FALD): Correlation of vascular flow in the liver with Fontan hemodynamics in children**  
   Karen I. Ramirez, MD

2. **Quantitative pleural line characterization improves COVID-19 diagnosis by lung ultrasound imaging**  
   Laith Sultan, MD, MPH

3. **Comparison of Human and Deep Learning Assessment of Kellgren-Lawrence Grade in Knee Osteoarthritis**  
   Emmanuel Magara, MD

4. **Quantitative Chest CT and Radiography substantially improve prognostic prediction of severe COVID-19**  
   Hae-Min Jung, BA

5. **Corpus Collosum Thickness in NF1 and its Correlation with Cognitive, Developmental, Intellectual Assessment, Autism Spectrum, and ADHD**  
   Dr. Monica Miranda Schaeubinger, MD, MSPH

6. **Improving Image Quality and Reducing Radiation Dose using Deep Learning Reconstruction**  
   Mohammed Abed, MD

7. **Breast Tumour Growth Model for Virtual Clinical Trials**  
   Hanna Tomic, MSc

8. **Strategic Recommendations for Radiology Artificial Intelligence’s Path Forward**  
   Ulysses Isidro, MPH
**Room 6: Clinical Studies and Applications**

*Room Captain: Tessa S. Cook, MD, PhD*

1. **Sensitivity of Imaging for Predicting Pediatric Adnexal Torsion**  
   Maria Camila Velez-Florez, MD
2. **Imaging of Pediatric Spinal Cord Infarct Associated with Fibrocartilaginous Embolism**  
   Jorge Du Ub Kim, MD
3. **Temporal Imaging Patterns of COVID-19 Pneumonia on Computed Tomography: The Current State-of-Art.**  
   Mallika Charagundla, HS
4. **TEACH: Inaugural Year-in-Review for Penn Radiology’s Clinician Educator Track**  
   Sophia O’Brien, MD
5. **Tyrosine Kinase Inhibitor Imatinib Alleviates the Progression of Ventilator-Induced Lung Injury**  
   Yi Xin, MS
6. **Decreased Morbidity of “Bowel-Only” Left Congenital Diaphragmatic Hernia Patients**  
   Phassawan Rungsiprakarn, MD
7. **Demographics and Socioeconomic Determinants Predict Adherence to Annual Lung Cancer Screening**  
   Joanna Jiang, BS
8. **Identifying the Roadblocks to Successful Pediatric Imaging Without Sedation or Anesthesia**  
   Iman A. Soliman, BS
9. **Prediction of Complication Risk in CT-guided Thoracic Biopsy: A Prescription for Improving Procedure**  
   Christina Marie Murphy, BA
10. **Advancing Culture Change in Radiology: The Value of Large versus Small Group Discussions**  
    Debra Sevinea Whorms, MD
11. **Demographics and socioeconomic determinants predict adherence to annual lung cancer screening**  
    Joanna Jiang, MD

**Room 7: Image Generation/Quantitative Imaging: X-Ray, CT, HP**

*Room Captain: David A. Mankoff, MD, PhD*

1. **Characterization of a Benchtop Speckle-Based Dark-Field X-ray System**  
   Serena Z. Shi, BS
2. **Combining Multiple Dual-Energy CT Technologies to Improve Iodinated Contrast Media Quantitation**  
   Wenchao Cao, PhD
   Kristen C. Lau, MMP
4. **Intra-Articular Contrast Enhanced MicroCT of Mouse Knee Joint**  
   Dhruv Goyal, MD
5. **Next Generation Tomosynthesis Image Acquisition Optimization for a Dedicated PET-DBT System**
6. **Quantitative Analysis of Speckle-Based Dark-Field Imaging using Wave-Optics Simulations**
   Sebastian Myer, PhD

7. **Analysis of Digital Breast Tomosynthesis Acquisition Geometries in Sampling Fourier space**
   Chloe Jeongin Choi, BS

8. **Comparing Wash-In/Wash-Out and RF-Contrast Methods for Measuring Fractional Ventilation**
   Luis A. Loza, BSc

9. **A 4-D Spatio-Temporal Approach for Characterizing Intratumor Heterogeneity as a Prognostic Biomarker**
   Rhea Chitalia, BSE

10. **Phase Classification on Dual Energy Abdominal CT**
    Jiancong Wang, PhD candidate

11. **Developing Reconstruction Algorithms that Facilitate Real Time 4D Tomosynthesis for Breast Biopsy**
    Priyash Singh, MS

12. **Monitoring Endobronchial Valve Interventions Using Hyperpolarized Xenon Lung Function Assessment**
    Hooman Hamedani, MSc