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Monday, Oct 20

7:00 – 7:50 AM	**Registration & Continental Breakfast**
7:50 – 8:00 AM	**Welcome Remarks** Vahid Yaghmai, MD, *University of California, Irvine* Peter D. Chang, MD, *University of California, Irvine* Conference Co-Chair
8:00 – 9:00 AM	**Opening Keynote Address | 1001** **When Pixels Speak: Foundation Models for True Imaging Intelligence in Medicine** Khan M. Siddiqui, MD, *Executive Chairman and CEO* HOPPR
9:00 – 10:30 AM Scan to review the abstracts 	**Foundation Models: Benchmarking and Application** **Scientific Abstract Presentations | 1002** Chair: Eliot L. Siegel, MD, FSIIM, *University of Maryland, VA Maryland Healthcare System*, *United Theranostics*, Conference Co-Chair Comparative Evaluation of Foundation Models versus End-to-End Trained Task-Specific Convolutional Models for Breast Implant Detection in Mammography Vasisht Ishwar, *Emory University* Evaluating Vision-Language Foundation Models for Brain MRI Sequence Classification, Stability, and Metadata Harmonization Satvik Tripathi, *Perelman School of Medicine, University of Pennsylvania* Foundation Model-Based Semi-Supervised Multiple Instance Learning for Automated Barrett's Esophagus Dysplasia Classification Amirali Khosravi, MD, *Mayo Clinic* Promptable 3D Lesion Segmentation in CT: Converting 2D PACS Annotations into 3D Training Datasets Samuel D. Church, MS, *University of Wisconsin – Madison* Revolutionizing AI in Radiology — Evaluating Open-source versus Proprietary LLMs: Deepseek versus GPT-4o on Radiological Images Christopher Z. Liu, *University of California, Irvine School of Medicine* Vector Contours to the Rescue: How Basic Shape Outlines Keep Vision-LLM Generated Reports Clinically Grounded Krish Malik, *Parkland High School*

Monday, Oct 20

10:30 – 10:45 AM	**Coffee Break**
10:45 AM – 12:15 PM Scan to review the abstracts 	**Real-World Performance, Bias, and AI Governance Scientific Abstract Presentations | 1003** Chair: Peter D. Chang, MD, *University of California, Irvine* Conference Co-Chair Longitudinal Tracking of Meningioma Volume Using Deep Learning with Automated Confidence Measures Pierre Nedelec, MS, MTM, *UCSF - Rauschecker Sugrue Lab* Demographic Bias in Chest X-Ray Foundation Models: Disparities in Underdiagnosis and Overdiagnosis from Embedding-Based Classification Mohammadreza Chavoshi, MD, *Emory University* Estimating the Causal Effect of Photon counting detector CT on AI Performance in an Outpatient Oncology Setting Using Counterfactual Comparisons with Dual Energy CT Yin Xi, PhD, *UT Southwestern Medical Center* Evaluating the Clinical Utility and Diagnostic Impact of AI Triage for Incidental Pulmonary Embolism (IPE) Aawez Mansuri, MS, *Emory University* Long-term Real-world Performance of a Pulmonary Embolism Detection and Re-prioritization Algorithm Yin Xi, PhD, *UT Southwestern Medical Center* Real-World Performance Evaluation of a Commercial Deep Learning Model for Intracranial Hemorrhage Detection: Anatomical and Demographic Analysis Mohammadreza Chavoshi, MD*, Emory University*
12:15 – 1:15 PM 	**Lunch & Visit Scientific Posters**

Monday, Oct 20

1:15 – 2:15 PM	**Radiology AI Competitions: From Challenge Design to Clinical Impact	1004** Chair: Katherine P. Andriole, PhD, FSIIM, *Mass General Brigham* Conference Co-Chair Tara Retson, MD, PhD, *University of California, San Diego* Jeff Rudie, MD, PhD, *University of California, San Diego*
2:15 – 3:45 PM Scan to review the abstracts	**Innovations in Segmentation and Ground Truth Creation** **Scientific Abstract Presentations	1005** Chair: Ingrid Reiser, PhD, FAAPM, *University of Chicago* Conference Co-Chair Adaptive Multi-Loss Learning with Self-Supervised Fine-Tuning for Robust Humerus Segmentation on Radiographs Anthony Wu, MS, *University of California, Irvine* Beyond Binary Masks: Stochastic Ensembles for Uncertainty-Aware Tumor Segmentation Andres Guerrero, *University of California, Irvine* Development and Validation of Novel Two-stage Vascular Segmentation Model for Interventional Angiography Michael Kovalchick, PhD Candidate, *Wayne State University* FewSAMNet - A Hybrid SAM-CNN Framework for Semi-Supervised Few-Shot Segmentation and Multi-Institutional Generalization Chetana Krishnan, PhD Student, *University of Alabama at Birmingham* Radiomic Sampling: A Model-Free Approach to Enhance Diversity of Validation Datasets Alexander Knapp*, Cincinnati Children's Hospital Medical Center* Turning Noise into Signal: Interpretable Disagreement Profiling for Improved AI-Based 3D Tumor Segmentation Crystal Chukwurah, *Yale School of Medicine*
3:45 – 4:00 PM	**Coffee Break**

Monday, Oct 20

4:00 – 5:30 PM Scan to review the abstracts 	**AI for Clinical Prediction and Workflow Enhancement Scientific Abstract Presentations	1006** Chair: Katherine P. Andriole, PhD, FSIIM, *Mass General Brigham* Conference Co-Chair A Flexible nnU-Net–Based Framework for Radiotherapy Dose Prediction Across Diverse Beam Geometries and Prescriptions Ho-hsin (Rita) Chang, *University of Alabama at Birmingham* Automated MRI-Based Classification of Tumor Progression in Diffuse Midline Glioma Using Neural Networks Atlas Haddadi Avval, MD, *University of California, San Francisco* Baseline Radiomics Model Outperforms RECIST and Clinical Biomarkers in Stratifying Overall Survival in HNSCC Patients Receiving Standard-of-Care Immunotherapy Lauren Brady, PhD, *Genmab* First Evaluation of AI-Assisted Preliminary Report Drafting in Abdomen–Pelvis CT: Effects on Agreement, Confidence, and Mental Demand Sanket Shah, MD*, a2z Radiology AI* In-Context Prior-Data-Fitted Networks for Robust Stroke Outcome Prediction in Tabular Data Dayeong An, PhD, *Northwestern University* Tag-Free Myocardial Function Analysis from Cine MRI via Spatiotemporal Motion Estimation Dayeong An, PhD, *Northwestern University*
5:30 – 6:30 PM	**AAPM-SIIM Symposium: AI Systems Need Physic(ist)s Too	1007** Chair: Ingrid Reiser, PhD, FAAPM, *University of Chicago* Conference Co-Chair Ingrid Reiser, PhD, FAAPM, *University of Chicago* Daniel Vergara, MS, DABR, *University of Washington*

Monday, Oct 20

6:30 – 7:30 PM

Scan to review poster abstracts

Scientific Poster Presentations & Networking Reception

Accelerating Clinical Integration of Imaging AI: Open-Source Deployment with MONAI Deploy Express
Bryan Luna, *Cincinnati Children's Hospital Medical Center*

Active Learning Pipeline for Accelerated Segmentation of 11,000+ Longitudinal Brain Metastasis MRI Studies-Initial Work
Crystal Chukwurah*, Yale School of Medicine;* Wes Krikorian*, Horace Mann School;* Ananya Purwar, *Harvey Mudd College*

AI on the Edge: Machine Learning for Point-Of-Care Musculoskeletal Ultrasound
Raffi Salibian, MD*, Olive View-UCLA Medical Center*

AI-Assisted Clinical Judgment in Nursing: A Human-Centered Informatics Framework for Safer Bedside Decisions
Alexis Collier, DHA, MHA, CALA*, University of North Georgia*

ALARA (As Low As Reasonably Achievable): Evaluating Causes of Excessive Radiation for Routine Interventional Radiology Procedures
Ryan Masotti, *Emory University*

Automated Hemodynamic Profiling from Bedside Ultrasound using EASyExamAI
Amira Elfergani, *Albany Medical College*

Automating Medical Scheduling through Agentic Assistant
Paulo Kuriki, MD, *UT Southwestern Medical Center*

Automating NLP on Clinical CSV Files Using a Customizable LLM Workflow Tool
Shiven Velagapudi, *UT Southwestern Medical Center*

Development and Implementation of a Criteria-based Radiology Imaging Selection Platform
Nicholas Mynarski, MD, *Northwell Health*

Eliminating Physician Dependency Bottlenecks in Automated Segmentation Quality Assurance Through a Novel Methodology
Reid Jockisch, *OSF HealthCare*

Monday, Oct 20

6:30 – 7:30 PM	**Scientific Poster Presentations & Networking Reception** (cont'd)

Evaluating the Accuracy and Safety of Patient-friendly Complete Radiology Reports using a HIPAA-compliant Large Language Model
Juan Serna, *University of California, San Francisco*

Evaluating the Diagnostic Value of a Large Language Model in Analyzing Chest X-Ray and CT Imaging in ED Trauma Cases
David Choung, *University of California, Irvine*; Catherine Kim, *University of California, Irvine*

Foundation Models Fail to Close Fairness Gaps in Medical AI: Unexpected Benefits of LLM-Extracted Labels
Amirali Khosravi, MD, *Mayo Clinic*

GUSL: A Novel and Efficient Machine Learning Model for Kidney Segmentation
Jiaxin Yang, PhD Student, *University of Southern California*

Leveraging Large Language Models to create Medical Research Databases: A Feasibility Study, Case Example, and Open-source App
Luke Altnether, *UT Southwestern Medical Center*

MCP-Driven Multi-Agent RAG System for Prostate Cancer Temporal Summarization, Lifespan Prediction, and Treatment Recommendation
Meenakshi Amulya Jayanti, *University of Chicago;* Zoe Calianos, *University of Chicago;* Hyunji Kim, *University of Chicago*

MRad-RAG: A Local Multimodal Radiology RAG Framework for Consumer Level Hardware
Liliana Ma, MD, PhD, *Stanford Healthcare*

Pre-Imaging Predictors of Cardiac MR Image Quality Using Large Language Model-Based Clinical Data Extraction
Masha Bondarenko, *University of California, San Francisco*

Rapid, Low-Cost Structuring of 200 MIMIC-CXR Reports with an Open 4-Billion-Parameter MedGemma Language Model
Mathue Duhaney, MD, *SUNY Downstate Health Sciences*

Monday, Oct 20	
6:30 – 7:30 PM	**Scientific Poster Presentations & Networking Reception** (cont'd) Speaking the Same Language: Utilizing Large Language Models to Automate Rad-Path Results Concordance Classification Across a Multi-System Healthcare Network Othria Ahmed, MD, *Northwell Health* Unclogging the CPU Pipes: A Persistent Caching Pipeline to Speed Up Deep Learning Workflows in Radiology Aditya V. Kulkarni, MSc, *St. Jude Children's Research Hospital* Withholding Sensitive Radiology Reports: Real-World Evaluation of an LLM-Based Classifier Aaron T. Chin, MD, *University of California, Los Angeles*

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Tuesday, Oct 21

7:00 – 8:00 AM	**Registration & Continental Breakfast**
8:00 – 9:30 AM Scan to review the abstracts [QR code]	**The Rise of LLMs and Agentic AI in Radiology** **Scientific Abstract Presentations	2001** Chair: Eliot L. Siegel, MD, FSIIM, *University of Maryland*, *VA Maryland Healthcare System*, *United Theranostics*, Conference Co-Chair Agentic Vision-Language Model for Explainable Stepwise Image Interpretation David Fussell, MD, *University of California, Irvine* Effect of Oral Contrast on the Distribution of False-positive Polyp Candidates Detected by AI in CT Colonography Hidekazu Takahashi, MD, PhD, *Massachusetts General Hospital, Boston Medical Sciences, Inc.* Latterview: A Multi-Agent Framework for Systematic Review Automation using Large Language Models Pouria Rouzrokh, MD, MPH, MHPE, *Yale New Haven Hospital, Yale University* RadDB-Agent: An Automatic Agentic System for Efficiently Building Large-scale Trustworthy Cancer Patient Databases Zheren Zhu, PhD Student, *University of California, San Francisco, University of California, Berkeley* Reasoning-Based Large Language Model Study for Automated Drain Management in Interventional Radiology Krishnaveni Parvataneni, *Massachusetts General Hospital* Structuring Free-text Abdominal CT Reports using Privacy-preserving LLMs Tanvir Agnihotri, *MD, Mount Sinai*
9:30 – 10:30 AM	**Translational Integration AI Showcase	2002** Marina Abdalla, *PaxeraHealth* Peter D. Chang, MD, *UC Irvine,* Conference Co-Chair Mohamed Shoura, PhD, *PaxeraHealth*

Tuesday, Oct 21

10:30 – 10:45 AM	**Coffee Break**
10:45 AM – 12:15 PM Scan to review the abstracts [QR code]	**Opportunistic Screening, Population Health, and Risk Prediction Scientific Abstract Presentations | 2003** Chair: Ingrid Reiser, PhD, FAAPM, *University of Chicago* Conference Co-Chair Advancing Opportunistic Detection of Osteoporosis Through AI-Driven CT Segmentation Amy MiHyun Jang, *University of Pennsylvania, Perelman School of Medicine* An Explanatory Deep Learning Model for the Prediction of Biologically Relevant Gene Expression in Non-small Cell Lung Tumors and their Microenvironment Vibha Rajesh Rao, *Dartmouth Health* Applying a Pediatric Liver Fibrosis Classification Tool to Adult Trichrome-Stained Liver Biopsies: A Validation Study Zachary Taylor, *Cincinnati Children's Hospital Medical Center* Deep Learning for Automated Aortic Valve Calcium Scoring on Non-Gated Chest CT Chanon Chantaduly, *University of California, Irvine* Discordance Analysis Between Automated Cardiothoracic Ratio Measurements and NLP-Extracted Cardiomegaly Labels Frank Li, PhD, *Emory University* Predicting Major Adverse Cardiovascular Events Using Multimodal Models Frank Li, PhD, *Emory University*
12:15 – 1:00 PM [QR code]	**Lunch & Visit Scientific Posters**

Tuesday, Oct 21

1:00 – 2:00 PM	**Navigating Your Career in Radiology AI Research	2004** Chair: Katherine P. Andriole, PhD, FSIIM, *Mass General Brigham,* Conference Co-Chair, *Moderator* Faraz Farhadi, MD, Radiology Resident, *Mass General Brigham* Woojin Kim, MD, *HOPPR* Amanda Lee, PhD Candidate, *San Diego State University and UC, Irvine* Briana Malik, *St. Jude Children's Research Hospital*
2:00 PM – 3:00 PM	**Closing Keynote	2005** **10 Years in Focus: Imaging AI Then, Now, and Next with the OGs** Bradley J. Erickson, MD, PhD, CIIP, FSIIM, *Mayo Clinic, Rochester* Eliot L. Siegel, MD, FSIIM, *University of Maryland School of Medicine, United Theranostics & VA Maryland Health Care System,* Conference Co-Chair
3:00 – 3:30 PM	**Excellence in AI Research Awards Presentation + Closing Remarks** *Recognition of the top 3 oral & poster abstract presentations.*

SIIM Machine Learning & Research Committees: AI in Imaging Informatics Collection

Explore the latest research from these committees in this curated collection — with more exciting publications on the way!

- "Teaching AI for Radiology Applications: a Multisociety-Recommended Syllabus from the AAPM, ACR, RSNA, and SIIM"
- "Digital Twin Technology In Radiology"
- "Best Practices and Checklist for Reviewing AI-Based Medical Imaging Papers"
- "Cross-Institutional Evaluation of LLMs for Radiology Diagnosis Extraction"
- "RIDGE: Reproducibility, Integrity, Dependability, Generalizability, and Efficiency Assessment of Medical Image Segmentation Models"
- "2023 Industry Perceptions Survey on AI Adoption and Return on Investment
- A Guideline for Open-Source Tools to Make Medical Imaging Data Ready for AI Applications"
- "Checklist for Reproducibility of Deep Learning in Medical Imaging"
- "Reproducibility of Deep Learning Algorithms Developed for Medical Imaging Analysis"

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