Poster presentations will be available as part of the virtual meeting beginning at 9:30 a.m. ET on Wednesday, January 13

PR-01 Real-time, point-of-care pathology diagnosis via embedded deep learning. Bowen Chen, Harvard University, Cambridge, MA.

PR-02 Machine learning models to quantify lineage plasticity and neuroendocrine differentiation in high-grade prostate cancer. Beatrice Knudsen, University of Utah and ARUP laboratories, Salt Lake City, UT.

PR-03 Radiomics and AI-based treatment decision support for non-small cell lung cancer. Wei J. Mu, H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL.

PR-04 Effect of breast cancer chemoprevention on a convolutional neural network-based mammographic evaluation using a mammographic dataset of women with atypical hyperplasia, lobular or ductal carcinoma in situ. Julia E. McGuinness, Columbia University Irving Medical Center, New York, NY.

PR-05 Leveraging graphs to do novel hypothesis and data-driven research using multiplex immunofluorescence images. Christopher Innocenti, Astrazeneca, Gaithersburg, MD.

PR-06 Utilizing biological domain knowledge and machine learning methods to improve cellular segmentation on multiplex fluorescence and imaging mass cytometry datasets improves the quality of single-cell data obtained. Trevor D. McKee, University Health Network, Toronto, ON, Canada.

PR-07 ORCESTRA: A platform for orchestrating and sharing high-throughput multimodal data analyses. Anthony Mammoliti, University Health Network, Toronto, ON, Canada.

PR-08 Accurate quantification of tumor DNA in liquid biopsies using deep learning. O. Alejandro Balbin, Novartis Institutes for Biomedical Research, Inc, Cambridge, MA.

PR-09 Genetic risk scores for breast cancer based on machine learning analysis of chromosomal-scale length variation. James P. Brody, University of California, Irvine, CA.

PR-10 Identifying new risk factors for early-onset CRC in population under 50 years old using EHR-based machine learning. Taylor M. Parker, University of Florida, Gainesville, FL.

PR-11 Developing an agnostic risk prediction model for acute kidney injury in cancer patients using a machine learning algorithm from blood results data. Lauren Scanlon, The Christie NHS Foundation Trust, Manchester, United Kingdom.

PR-12 Towards verifying results from biomedical deep learning models using the UMLS: Cases of primary tumor site classification and cancer named entity recognition. Theodore Gaelejwe, IBM Research, Johannesburg, South Africa.

PO-001 Deep learning-based image analysis of the histological Glasgow Microenvironment Score in patients with colorectal cancer. Christopher J. Bigley, University of Glasgow, Glasgow, United Kingdom.

PO-002 Pan-cancer integrative histology-genomic analysis via interpretable multimodal deep learning. Richard J. Chen, Harvard Medical School, Boston, MA.

PO-003 Deep learning identifies conserved pan-cancer tumor features. Ali Foroughi pour, The Jackson Laboratory, Farmington, CT.

PO-004 A deep convolutional neural network for segmentation of whole-slide pathology images in glioblastoma. Guillermo A. Gomez, Centre for Cancer Biology, SA Pathology and the University of South Australia, Adelaide, SA, Australia.

PO-005 An efficient digitized annotation platform for pathology-oriented dataset generation in AI research. Amoon Jamzad, Queen's University, Kingston, ON, Canada.

PO-006 Artificial intelligence aided interpretation of ALK fluorescent in situ hybridization for lung cancer: An algorithm development based on 10-year-annotated quality control files in central laboratory. Tae-Jung Kim, Department of Hospital Pathology, Seoul, Republic of Korea.

PO-007 Deep learning-based computational pathology predicts origins for cancers of unknown primary. Ming Yang Lu, Brigham and Women's Hospital, Boston, MA.

PO-008 Federated learning on whole slide images using weakly supervised computational pathology. Ming Yang Lu, Brigham and Women's Hospital, Boston, MA.

PO-009 Towards solving overlapping nuclei segmentation: Sequential CNNs for one to many mapping of pixels to objects. Calum E. MacAulay, BC Cancer, Vancouver, BC, Canada.

PO-010 Feature pyramid network for revealing tumour infiltrating lymphocyte presence and distribution in a whole slide image. Jonathan Mazurski, University of Toronto, Toronto, ON, Canada.

PO-012 AI and digital pathology based on nucleus morphology for diagnosis, prognosis, and morphological-gene isolation Li Fraumeni as a model. Ilan Tsarfaty, Tel Aviv University, Tel Aviv, Israel.

PO-014 Deep learning-based segmentation accurately captures histological features in cancer-free lymph nodes of breast cancer patients. Gregory Verghese, King's College London, London, United Kingdom.

PO-016 Seeing glycolysis on PDAC: Applying deep learning convolutional neural network model. Chang-Jiun Wu, MD Anderson Cancer Center, Houston, TX.

PO-017 Annotation-free 3D gland segmentation with generative image-sequence translation for prostate cancer risk assessment. Weisi Xie, University of Washington, Seattle, WA.

PO-018 Computational staining of tumor hypoxia from H&E images using convolutional neural networks. Mark Zaidi, University of Toronto, Toronto, ON, Canada.

PO-021 Humans cannot accurately detect mucinous colorectal carcinoma from CT images, can AI help?. Kinga Bernatowicz, Vall d'Hebron Institute of Oncology (VHIO), Barcelona, Spain.

PO-022 Automated liver tissue segmentation in point of care ultrasound b-mode images using U-Net. Raul Blazquez Garcia, Oncoustics, Toronto, ON, Canada.

PO-023 Differentiation of tumefactive multiple sclerosis and glioblastoma using radiomics features extracted from magnetic resonance imaging and machine learning. Gian Marco Conte, Mayo Clinic, Rochester, MN.

PO-024 Boosting up knee bone tumor detection from radiology and magnetic resonance imaging by using deep learning techniques. Nhu-Tai Do, Chonnam National University, Gwangju, Republic of Korea.

PO-025 Differentiation of benign from clinically significant prostate cancer tissues using convolution neural networks on raw micro-ultrasound data. Ahmed El Kaffas, Stanford University, Stanford, CA.

PO-026 Convolutional neural network assessment of immune activation state of brain metastases. Mishka Gidwani, Massachusetts General Hospital, Boston, MA.

PO-027 Associations of radiomics features with tumor necrosis following chemotherapy and/or radiation therapy in patients with extremity soft tissue sarcoma. James Grosso, University of Miami, Miami, FL.

PO-029 Survival prediction of non-small cell lung cancer by deep learning model integrating clinical and positron emission tomography data. Sae-Ryung Kang, Chonnam National University Hwasun Hospital, Hwasun-gun, Republic of Korea.

PO-030 Radiomics for head and neck cancer prognostication: Results from the RADCURE machine learning challenge. Michal Kazmierski, Department of Medical Biophysics, University of Toronto, Toronto, ON, Canada.

PO-031 Evaluating clinical utility of organs-at-risk segmentation In head and neck cancer by simple open-source 3D CNNs. Joseph Marsilla, University of Toronto, Toronto, ON, Canada.

PO-033 The impact of the variation of CT scanner on the prediction of HPV status in head&neck cancer patients. Reza Reiazi, Princess Margaret Cancer Centre, Toronto, ON, Canada.

PO-034 The prediction of Mandibular osteoradionecrosis in head and neck cancer patients using CT-derived radiomics features. Reza Reiazi, Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network, Toronto, ON, Canada.

PO-035 Development of a robust radiomic biomarker of PDL1 expression and patient survival after first-line immunotherapy for Non-Small Cell Lung Cancer. Apurva Singh, University of Pennsylvania, Philadelphia, PA.

PO-036 A sophisticated bioinformatics framework for integrative study of radiomics and genomics profiles of tumors. Shrey S. Sukhadia, Queensland University of Technology, Brisbane, QLD, Australia.

PO-038 Improving lung cancer survival analysis from CT images by Sliency Sampling. Hung Thanh Vo, Chonnam National University, Gwangju, Republic of Korea.

PO-039 Artificial intelligence-based extracapsular extension prediction in head and neck cancer analysis. Haifeng Wang, Mississippi State University, Mississippi State, MS.

PO-040 Retinal disease diagnosis through an adaptive deep learning model. Haifeng Wang, Mississippi State University, Mississippi State, MS.

PO-041 Shape features predicting intrahepatic progression-free and overall survival for SBRT treated HCC patients using radiomics and deep learning based survival models. Lise Wei, Radiation Oncology Department, University of Michigan, Ann Arbor, MI.

PO-042 Nanoparticles imaging for cancer metastasis diagnosis. Yulia Merkher, Moscow Institute of Physics and Technology (MIPT), Dolgoprudny, Moscow Region, Russian Federation.

PO-043 Combining multiplexed immunohistochemistry and deep learning to spatially map the tumor microenvironment. Kouther Noureddine, BC Cancer Research Centre, Vancouver, BC, Canada.

PO-045 Machine learning for predicting overall survival using whole exome DNA and gene expression data and analyzing the significance of features. Dmitrii K. Chebanov, BioAlg Corp., Walnut, CA.

PO-046 MethylationToActivity: A deep-learning framework that reveals promoter activity landscapes from DNA methylomes in individual tumors. Xiang Chen, St. Jude Children's Research Hospital, Memphis, TN.

PO-048 Visual nucleotyping identifies chromatin phenotypes triggered by genome editing. Vivek Nandakumar, Altius Institute for Biomedical Sciences, Seattle, WA.

PO-049 Pseudo-alignment resolution in discriminating mouse reads. Soheil Jahangiri-Tazehkand, Princess Margaret Cancer Centre, Toronto, ON, Canada.

PO-050 Identifying de novo stage IV breast cancer (DNIV) cases in Electronic Health Records (EHR) using natural language processing. James Jakub, Mayo Clinic, Rochester, MN.

PO-051 Development of web-based quality-assurance tool for radiotherapy target delineation for head and neck cancer: Quality evaluation of nasopharyngeal carcinoma. Jun Kim, Princess Margaret Cancer Centre, University Health Network, Toronto, ON, Canada.

PO-052 Exploring patient derived xenografts based pharmacogenomic data for precision oncology. Arvind Singh Mer, University Health Network, Toronto, ON, Canada.

PO-053 Machine learning CADx process for classification of lung nodules below the Lung-RADS 4A threshold in LDCT scans. Rohan Abraham, British Columbia Cancer Research Center, Vancouver, BC, Canada.

PO-054 Development of machine learning based early warning for rapid response system in a single cancer center. Bo-Gun Kho, Chonnam National University Medical School, Gwangju, Republic of Korea.

PO-056 Importance of artificial intelligence, machine learning deep learning in the field of medicine on the future role of the physician. Subash Kumar, Lochbridge, Elkridge, MD.

PO-058 Decoding tissue of origin patterns by tumor DNA and plasma tumor proteins. Mao Mao, Research & Development, SeekIn Inc, Shenzhen, China (Mainland).

PO-059 Recurrence predictive models for patients with hepatocellular carcinoma after radiofrequency ablation based on machine learning algorithms. Ja-Der Liang, National Taiwan University Hospital, Taipei, Taiwan (Greater China).

PO-060 Individualized prediction of meningioma recurrence risk over prolonged time periods. Yasin Mamatjan, Princess Margaret Cancer Centre, Toronto, ON, Canada.

PO-062 Fully automated artificial intelligence based breast cancer scanning through transilluminated image acquisition for mass screening appliances. Ponram P, Amrita College of Engineering and Technology, Nagercoil, India.

PO-064 Predicting tumor sensitivity to chemotherapeutic drugs using molecular, cellular and computational methods. N. Rajendra Prasad, Annamalai University, Kumbakonam, India.

PO-065 Artificial Intelligence to improve selection for NSCLC patients treated with immunotherapy. Arsela Prelaj, Fondazione IRCCS Istituto Nazionale TumoriFondazion, Milan, Italy.

PO-066 Data standardization, integration and meta-analysis of preclinical pharamcogenomics studies for gene expression biomarker discovery. Petr Smirnov, University of Toronto, Toronto, ON, Canada.

PO-067 AI and CT-radiomics as a tool for breast cancer prognosis and radiomics-gene isolation: Activated MET induced mammary carcinoma as a model. Ilan Tsarfaty, Tel Aviv University, Tel Aviv, Israel.

PO-068 Developing ovarian cancer sensors using molecular perceptron . Zvi Yaari, Memorial Sloan Kettering Cancer Center, New York, NY.

PO-069 A deep learning model assists urine cytology reporting with computational estimates of the nuclear/cytoplasmic ratios of the urothelial cells based on the Paris System. Wei-Lei Yang, AIxMed, Inc., Fremont, CA.

PO-070 Bimodality of gene expression in cancer patient tumors as interpretable biomarkers for drug sensitivity. Wail Ba-alawi, Princess Margaret Cancer Centre, Toronto, ON, Canada.

PO-071 Simulation of colorectal cancer clinical trials using real-world data and machine learning. Zhaoyi Chen, University of Florida, Gainesville, FL.

PO-072 Robust deployment of ML models quantifying the HE tumor microenvironment in NSCLC subjects from an AstraZeneca-sponsored phase II clinical trial. Laura Dillon, AstraZeneca, Gaithersburg, MD.

PO-073 Using machine learning to identify the risk factors of pancreatic cancer from the PLCO dataset. Sheema Khan, University of Memphis, Memphis, TN.

PO-074 The impact of phenotypic bias in the generalizability of deep learning models in non-small cell lung cancer. Aidan Gilson, Yale School of Medicine, New Haven, CT.

PO-075 Kinotype to phenotype: Perturbed phosphoproteomic state predicts cancer cell growth rates in vitro. Shawn M. Gomez, The University of North Carolina at Chapel Hill, Chapel Hill, NC.

PO-076 Unsupervised learning of image embeddings enables new opportunities to extract novel information from digital pathology HE images. Jason Hipp, AstraZeneca, Gaithersburg, MD.

PO-077 Image clustering of brain tumor patients using a deep neural network. Hadi Hosseini, St. Jude Children's Research Hospital, Memphis, TN.

PO-078 Exploring adversarial image attacks on deep learning models in oncology. Marina Joel, Yale University, New Haven, CT.

PO-079 Fused LASSO application for gastric cancer image segmentation. Jiwon Jung, Asan Medical Center, Seoul, Republic of Korea.

PO-080 Deep learning-based analysis of heterogeneity of breast cancer cells using lens-free digital in-line holography. Kwonmoo Lee, Boston Children's Hospital, Boston, MA.

PO-082 Automated tumor segmentation, grading, and analysis of tumor heterogeneity in preclinical models of lung adenocarcinoma. John H. Lockhart, Moffitt Cancer Center, Tampa, FL.

PO-083 Artificial intelligence based detection of breast cancer from transilluminated optical data. Ponram P, Amrita College of Engineering and Technology, Nagercoil, India.

PO-084 Automated detection of pancreatic ductal adenocarcinoma (PDAC) on CT scans using artificial intelligence (AI): Impact of inclusion of automated pancreas segmentation on the accuracy of 3D-convolutional neural network (CNN). Anurima Patra, Mayo Clinic, Rochester, MN.

PO-086 Detection of cancer lesions in histopathological lung images using a sparse PCA network. Sundaresh Ram, University of Michigan, Ann Arbor, MI.

PO-089 Morphokinetic single-cell analysis and machine learning as a tool to characterize breast cancer cell motility and response to therapy. Ilan Tsarfaty, Tel Aviv University, Tel Aviv, Israel.

PO-090 Application of deep learning methods in predicting survival and identifying high-risk populations from large Optum real world breast cancer data. Han Wang, NC State, Raleigh, NC.

PO-091 Modeling the effects of glucose accessibility on tumor cell growth: A comparison of mechanism-based and machine learning models. Jianchen Yang, The University of Texas at Austin, Austin, TX.

PO-092 Developing a computable phenotype to identify populations eligible/ineligible for lung cancer screening. Shuang Yang, University of Florida, Gainesville, FL.

PO-093 Evaluating dependencies by rapid image-based ex vivo cancer biosensors. Mushriq Al-Jazrawe, Broad Institute of MIT and Harvard, Cambridge, MA.

PO-094 Socioeconomic status and utilization of cancer surgeries in the United States, Canada, and Australia. Hilary Pang, Faculty of Medicine, University of Toronto, Toronto, ON, Canada.

PO-095 The PROState AI Cancer–Decision Support (PROSAIC-DS) pilot study: Clinical decision support technology and its role in prostate cancer MDT meetings. Vishal Shiatis, King's College London, London, United Kingdom.