**Curriculum Vitae**

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| **Date Prepared:** | 2023-03-13 |
| **Name:** | Jayashree Kalpathy-Cramer |
| **Office Address:** | Department of Ophthalmology University of Colorado School of Medicine 1675 Aurora Court, F731, Aurora, CO 80045 |
| **Work Email:** | Jayashree.kalpathy-cramer@cuanschutz.edu |

EDUCATION

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| **Year** | **Degree** | **Major** | **School/Program** |
| 1987 | B.Tech | Electrical Engineering | Indian Institute of Technology, Bombay, India |
| 1989 | MS | Electrical Engineering | Rensselaer Polytechnic Institute, Troy, NY |
| 1993 | PhD | Electrical Engineering  (Prof. SP Murarka) | Rensselaer Polytechnic Institute, Troy, NY |
| 2009 | MS | Biomedical Informatics  (Prof. W. Hersh) | Oregon Health & Science University, Portland, OR |

Postdoctoral Training

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| Year(s) | Title | Specialty/Discipline  (Lab PI for postdoctoral research) | Institution |

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| 04/1995- 10/1995 | Semiconductor Research Corporation Post Doctoral Research Associate | Semiconductor Research  PI: Dr. SP Murarka | Rensselaer Polytechnic Institute, Troy, NY |
| 09/2006-08/2009 | National Library of Medicine Fellowship | Department of Medical Informatics and Clinical Epidemiology  PI: Dr. W. Hersh | Oregon Health & Science University, Portland, OR |

FACULTY ACADEMIC APPOINTMENTS

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| Year(s) | Academic Title | | Department | | Academic Institution | |
| 09/1992-12/1992 | | Instructor | | Mathematics | | Hudson Valley Community College, Troy, NY | |
| 09/2009-8/2011 | | Instructor | | Medical Informatics | | Oregon Health & Science University, Portland, OR | |
| 11/ 2010- 4/2011 | | Visiting Research Scientist | | Electrical and Computer Engineering | | Northeastern University, Boston, MA | |
| 09/2011-12/2013 | | Instructor | | Radiology | | Harvard Medical School, Boston, MA | |
| 01/2014- 11/2017 | | Assistant Professor | | Radiology | | Harvard Medical School, Boston, MA | |
| 09/2011-present | | Adjunct Asst. Professor (non-voting) | | Medical Informatics, Radiation Medicine | | Oregon Health & Science University, Portland, OR | |
| 12/2017- 5/2022 | | Associate Professor | | Radiology | | Harvard Medical School, Boston, MA | |
| 6/2022-present | | [Visiting] Professor | | Radiology | | Harvard Medical School, Boston, MA | |
| 6/2022-present | | Professor | | Ophthalmology | | University of Colorado, Anschutz Medical Campus | |

OTHER PROFESSIONAL POSITIONS

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| Year(s) | Position Title | Institution |
| 10/1995-10/1996 | Senior Process Engineer | LSI Logic, Santa Clara, CA |
| 11/1996-5/2004 | Staff Process and Integration Engineer,  Technology owner for 0.18 μm and 0.35 μm LSI Logic (semiconductor chip manufacturer) specific semiconductor processes: managed flow changes and updates, oversaw process improvements and changes as part of the Quality Review Board | LSI Logic, Gresham, OR |
| 2016 | Consultant | INFOTECH Soft, Inc |

MAJOR ADMINISTRATIVE LEADERSHIP POSITIONS

Local

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| Year(s) | Position Title | Institution (note if specific department) |

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| 2010, 2011 | Developed the quantitative research methods course for graduate students in Medical Informatics | Dept. Medical Informatics & Clinical Epidemiology, Oregon Health & Science University |

National and International

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| Year(s) | Position Title | Institution (note if specific department) |

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| 1998 | Organizer/Chair at the 1998 Spring meeting MRS Symposium Q (Materials Issues in Chemical-Mechanical Polishing) | Materials Research Society Spring Meeting, San Francisco, CA, April 1998 |
| 2007-2013 | Co-organizer of ImageCLEF | International Image Retrieval challenge |
| 2010 | Co-organizer for ImageCLEF@ICPR – The CLEF Cross Language Image Retrieval Track | International Conference on Pattern Recognition, Istanbul, Turkey |
| 2011 | Co-chair | International ACM Workshop on Medical Multimedia Analysis and Retrieval (MMAR), Scottsdale, AZ |
| 2012 | Chair of the Bioinformatics and Data Sharing Working Group | Quantitative Imaging Network (a network of 13+ sites funded by the NCI to develop and advance quantitative imaging for cancer) |
| 2013 | Chair of the PET/CT working group | Quantitative Imaging Network (a network of 17+ sites funded by the NCI to develop and  advance quantitative imaging for cancer) |
| 2013 | Co-organizer for the NCI-MICCAI 2013 Grand Challenges in Image Segmentation (Multiparametric Brain Tumor Segmentation) | MICCAI 2013, Nagoya, Japan |
| 2013 | Co-organizer for the AMIA-ImageCLEF workshop | American Medical Informatics Association Annual Meeting, Washington, DC, |
| 2014 | Chair of the Image Analysis and Performance Metrics Working group | Quantitative Imaging Network (a network of 21+ sites funded by the NCI to develop and  advance quantitative imaging for cancer) |
| 2014 | Co-organizer for the NCI-MICCAI 2014 Grand Challenges in Image Segmentation (Multiparametric Brain Tumor Segmentation) | MICCAI 2014, Boston, MA |
| 2015 | Co-organizer for NCI-MICCAI 2015 Computational Brain Tumor Cluster of events | MICCAI 2015, Munich, Germany |
| 2015, 2016, 2017 | Co-chair National Brain Tumor Society MRI image analysis workgroup | Jump Starting Brain Tumor Drug Development Coalition |
| 2016 | Co-organizer of NCI-MICCAI Precision Medicine Workshop | MICCAI 2016, Athens, Greece |
| 2016-2017 | Co-chair of the technical working group of the Informatics Technology for Cancer Research (ITCR) | National Cancer Institute Program |
| 2017 | Co-organizer of NCI-MICCAI Precision Medicine Workshop | MICCAI 2017, Quebec City, Canada |
| 2017 | Chair of the Bioinformatics and Data Sharing Working Group | Quantitative Imaging Network (a network of 25+ sites funded by the NCI to develop and advance quantitative imaging for cancer) |
| 2019 -date | Senior Scientist | American College of Radiology, Data Science Institute |
| 2020-date | Co-chair, Federated Learning working group | MONAI open source project. |
| 2021-2023 | Organizing Committee | MICCAI 2023, Vancouver, Canada |
| 2022 | Organizer, tutorial on “Federated Learning in Medical Imaging” | IEEE ISBI 2022, Calcutta, India |
| 2022 | Organizer, ACR-NCI-NVIDIA Breast density federated learning challenge | MICCAI 2022, Singapore |
| 2023 | Co-chair, Challenges | MICCAI, 2023, Vancouver, |

COMMITTEE SERVICE

Local

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| Year(s) of  Membership | Name of Committee | Institution/Organization |
| Dates of Role(s) | Title of Role(s) |

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| 2009-2011 | Admissions Committee | Dept. Medical Informatics and Clinical Epidemiology, OHSU |
| 2009-2011 | PhD Exam Committee | Dept. Medical Informatics and Clinical Epidemiology, OHSU |
| 2020 | Search Committee for Executive Director | Athinoula A. Martinos Center for Biomedical Imaging, MGH |
| 2019-2021 | Radiology executive committee for research | Dept. Radiology, MGH |

National and International

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| Year(s) of  Membership | Name of Committee | Institution/Organization |
| Dates of Role(s) | Title of Role(s) |

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| 2007 | Program Committee member | IEEE Workshop of Data Mining in Medicine | |
| 2009 | Publicity chair | MCBR-CDS 2009: Medical Content-based Retrieval for Clinical Decision Support, Medical Image Computing and Computer Assisted Interventions Conference (MICCAI) 2009 | |
| 2011 | Program Committee member | First IEEE Conference on Healthcare Informatics, Imaging, and Systems Biology (HISB), San Jose, CA | |
| 2011 | Program Committee member | International ACM Workshop on Medical Multimedia Analysis and Retrieval (MMAR), Scottsdale, AZ | |
| 2011 | Sponsorship Chair | First IEEE Conference on Healthcare Informatics, Imaging, and Systems Biology (HISB), San Jose, CA | |
| 2012 | Publicity chair | | SIGIR, Portland, OR | |
| 2012 | Program Committee member | ACM Multimedia 2012, Nara, Japan | |
| 2012 | Program Committee member | MICCAI MCBR-CDS 2012: Medical Content-based Retrieval for Clinical Decision Support, Nice, France | |
| 2012-date | Invited member | Quantitative Imaging Biomarker Alliance (QIBA) Metrology and PDF committees (RSNA effort) | |
| 2015-2018 | Invited member | National Brain Tumor Imaging Standardization Steering Committee | |
| 2016 | Program Committee member | MICCAI 2016, Athens, Greece | |
| 2017 | Program Committee member | ML-CDS 2017: Multimodal Learning for Clinical Decision Support Workshop at MICCAI 2017 | |
| 2017/2018 | Program Committee member | Health on the Web” research paper track at the 27th World Wide Web Conference (WWW) | |
| 2017-date | Member, Biomedical Engineering Advisory Council | Rensselaer Polytechnic Institute, Troy, NY | |
| 2017-date | Machine Learning Steering Committee | Radiological Society of North America (RSNA) | |
| 2018-date | Research Advisory Council | The Cancer Imaging Archive project | |
| 2018 | Program Committee | MICCAI 2018 | |
| 2019-date | Advanced Imaging Task Group | National Lung Cancer Roundtable | |
| 2019-date | Research Round Table Content Committee | NBTS Research Roundtable Content Committee | |
| 2020-date | External Advisory Committee Co-Chair | NCI Imaging Data Commons | |
| 2020 | Program Committee member | RSNA Breast Scientific Program Committee | |
| 2020 | Program Committee member | MICCAI Distributed and Collaborative Learning workshop | |
| 2020 | Steering Committee | Medical Open Network for AI (MONAI) | |
| 2020 | Working group chair | Federated Learning, MONAI | |
| 2020 | Search Committee | AA Martinos Professorship, MIT | |
| 2021 | Program Committee member | 2nd MICCAI Workshop on Distributed and Collaborative Learning | |
| 2021, 2022 | General chair | Workshop on Interpretability of Machine Intelligence in Medical Image Computing at MICCAI 2021 | |
| 2022 | Committee member | AAO Artificial Intelligence committee | |
| 2022-2023 | Program Committee member | SPIE Medical Imaging | |
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PROFESSIONAL SOCIETIES

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| Year(s) of  Membership | Society Name |  |
| Dates of Role(s) | Title of Role(s) |

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| 1990-1993 | The Electrochemical Society | Member |
| 1998-2000 | The Electrochemical Society | Member |
| 1998-2000 | Materials Research Society | Member |
| 2001-2004 | Institute of Electrical and Electronics Engineers | Member |
| 2007-present | Institute of Electrical and Electronics Engineers | Member |
| 2006- present | American Medical Informatics Association | Member |
| 2007- present | SPIE | Member |
| 2008- present | Association for Computing Machinery (ACM) | Member |
| 2011-present | American Society for Radiation Oncology (ASTRO) | Associate member |
| 2012-present | Radiological Society of North America (RSNA) | Associate member |
| 2013-present | International Society for Magnetic Resonance in Medicine (ISMRM) | Member |

GRANT REVIEW ACTIVITIES

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| Year(s) of  Membership | Society Name |  |
| Dates of Role(s) | Title of Role(s) |

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| May, 2014 | Special Emphasis Panel/Scientific Review Group 2014/10 Study section ZCA1 TCRB-Y (O2) | NIH/NCI Ad hoc member |
| October, 2014 | Special Emphasis Panel/Scientific Review Group 2015/01 ZRG1 SBIB-D (57) | NIH/NCI Ad hoc member |
| January, 2015 | Special Emphasis Panel/Scientific Review Group 2015/05 Study section ZCA1 TCRB-Y (M1) | NIH/NCI Ad hoc member |
| May, 2015 | Special Emphasis Panel/Scientific Review Group 2015/10 ZCA1 TCRB-Y (O2), | NIH/NCI Ad hoc member |
| November, 2015 | Special Emphasis Panel/Scientific Review Group 2016/01 ZCA1 TCRB-W (J1) S | NIH/NCI Ad hoc member |
| April, 2016 | Special Emphasis Panel/Scientific Review Group 2016/05 ZCA1 GRB-P (M2) S | NIH/NCI Ad hoc member |
| October, 2017 | Special Emphasis Panel/Scientific Review Group 2017 ZCA1 TCRB – D (J1) | NIH/NCI Ad hoc member |
| July, 2018 | Special Emphasis Pane/Scientific Review Group 2018 ZLM1 YW – C (01) | NIH/NLM Ad hoc member |
| January 2019 | External grant review | Israel Science Foundation |
| May 2019 | External grant review | Singapore Ministry of Health |
| September 2019 | Special Emphasis Panel SPORE program, ZCA1 RPRB – J (J1) | NIH/NCI Ad hoc member |
| September 2019 | Artificial Intelligence in Oncology | Hanarth Fonds, Netherlands |
| March 2020 | External grant review | Singapore Ministry of Health |
| October 2020 | CTIS study section | NIH temporary member |
| July 2021 | External grant review | Health Research Board, Ireland |
| August 2021 | External grant review | MRC council, UK |
| December 2021 | Site view review of NIH Molecular Imaging Branch | Site visit review team |

Editorial Activities

Ad hoc Reviewer

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| Journals for which you serve as a reviewer |

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| Computer Vision and Image Understanding |
| Journal of the American Society for Information Science and Technology |
| International Journal of Computers and Applications |
| Computer Methods and Programs in Biomedicine |
| Pattern Recognition Letters |
| International Medical Informatics Association Yearbook |
| Health Information and Libraries Journal |
| AMIA annual meeting, 2010, 2011 |
| AMIA Clinical Research Informatics Summit, 2011 |
| Medical Journal of Australia |
| Journal of Convergence Information Technology |
| Methods of Information in Medicine |
| Journal of Digital Imaging |
| Computerized Medical Imaging and Graphics |
| IEEE Journal of Biomedical and Health Informatics  MICCAI Annual conference 2016  NIPS annual conference 2016, 2017 |
| PeerJ |
| Radiology |
| IEEE Transactions on Medical Imaging |
| NeurIPS conferences 2016, 2017, 2019 |
| The Lancet |
| JAMA Oncology |

Editorial Board

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| Journals for which you serve as a reviewer |

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| Methods of Information in Medicine (since November 2012)  Editorial Board Member, Translational Vision Science and Technology (since 2020) |

Associate Editor

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| Journals for which you serve as a reviewer |

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| The British Journal of Radiology (AI section) (since December 2020) |

Deputy Editor

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| Journals for which you serve as a reviewer |

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| Radiology: Artificial Intelligence (since July 2018) |

[Honors and Prizes](http://cv.hms.harvard.edu/index.php?page=honors)

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| Year | Name of Honor/Prize | Awarding Organization | Achievement for which awarded  (if unclear from award title) |

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| 1989 | Nominated for teaching award | Electrical Engineering Department, Rensselaer Polytechnic Institute |
| 2010 | Candidate for best poster, “Propensity Score-Weighted Survival Model for the Benefit of Adjuvant Chemoradiotherapy for Gallbladder Cancer” | Medinfo 2010, Cape Town, South Africa |
| 2017 | Co-supervised student paper that won  Robert F. Wagner Best Student paper in the SPIE Medical Imaging 2017 | Dicente Cid Y, Mamonov A, Beers A, Thomas A, Kovalev V, Kalpathy-Cramer J, Müller H, Making sense of large data sets without annotations: analyzing age-related correlations from lung CT scans, Proc. SPIE 10138, Medical Imaging 2017: Imaging Informatics for Healthcare, Research, and Applications, 1013809 (March 13, 2017) |
| 2017 | 2017 Marco Ramoni Distinguished paper award, American Medical Informatics Association Translational Bioinformatics Summit | Saltz J, Almeida J, Gao Y, Sharma A, Bremer E, DiPrima Y, Saltz M, Kalpathy-Cramer J, Kurc T , Towards generation, management, and exploration of combined radiomics and pathomics datasets for cancer research, |
| 2020 | Council of Distinguished Investigators | Academy for Radiology & Biomedical Imaging Research |
| 2022 | Supervised Image Processing best student paper award runner-up, SPIE Image Processing Conference, 2022 | Hoebel K, Bridge C, Lemay A, Chang K, Patel J, Rosen B, Kalpathy-Cramer J, "Do I know this? segmentation uncertainty under domain shift," Proc. SPIE 12032, Medical Imaging 2022: Image Processing, 1203211 (4 April 2022); |
| 2022 | Thrall Mentoring Award (recognizes and honors mentoring contributions of faculty who have demonstrated sustained interest and success in mentoring junior faculty members and trainees.) | Department of Radiology, MGH |

**Report of Funded and Unfunded Projects**

Funding Information

Current

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| 2019 – 2023 | Partnership for Retinopathy Of Prematurity Evaluation in the Real world (PROPER)  Subcontract-PI: $103,886 (direct costs)  The long-term goal of this project is to evaluate whether deep learning may be used to  predict disease recurrence in retinopathy of prematurity |
| 2020 –2024 | EU2020  ProCan -I: An AI Platform integrating imaging data and models, supporting precision care through prostate cancer’s continuum  Kalpathy-Cramer (sub-contract PI): $508,784 (direct costs) The objective to design, develop and sustain a cloud-based, secure image infrastructure with tools and services for data handling and to develop AI tools for prostate cancer. |
| 2020 –2022 | Robust AI to develop risk models in retinopathy of prematurity using deep learning  Kalpathy-Cramer (PI): $275,000 (direct costs)  The goal of this project is to develop risk models for retinopathy of prematurity using distributed learning approaches. |
| 2020-2025 | NIBIB: Medical Imaging and Data Consortium: Rapid Response to COVID-19 Pandemic (PI: Giger)  Kalpathy-Cramer (subcontract/project PI): $396,496 (direct costs), budget for years 3-5 to be amended.  The goal of this project is to develop algorithms and infrastructure for image analysis in COVID-19 |
| 12/2020 – 12/2025 | NEI/NIH  Clinical and Genetic Analysis of Retinopathy of Prematurity Kalpathy-Cramer (sub-contract PI), $449,163 The long-term goal of this project is to evaluate how deep learning may be used to  predict disease recurrence in retinopathy of prematurity |
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Past

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| 2006-2009 | | Biomedical Informatics Research Training At Oregon Health & Science University  NLM 2T15LM007088  Trainee/fellow | | |
| 2009-2011 | | Oregon Clinical and Translational Science Institute: To change biomedical research to create a vibrant academic home for clinical/translational research  1 UL1 RR024140  Informatician, Translational Bioinformatics Program (BMIP) | | |
| 2009-2011 | | Clinical Image Retrieval: User needs assessment, toolbox development and evaluation  NLM/K99-R00 1K99LM009889  PI ($199,587 total direct costs)  The specific aims of this grant are to (1) Understand the image retrieval needs of novice and expert users in radiation oncology and develop gold standards for evaluation; (2) Develop algorithms for semantic, multimodal image retrieval; (3) Perform user based evaluation of adaptive image retrieval in radiation oncology; (4) Extend the techniques developed to create a multimodal image retrieval system in pathology | | |
| 2011-2014 | | Clinical Image Retrieval: User needs assessment, toolbox development and evaluation  NLM/K99-R00 4R00LM009889  PI: $416,255 (direct costs)  The specific aims of this grant are to (1) Understand the image retrieval needs of novice and expert users in radiation oncology and develop gold standards for evaluation; (2) Develop algorithms for semantic, multimodal image retrieval; (3) Perform user based evaluation of adaptive image retrieval in radiation oncology; (4) Extend the techniques developed to create a multimodal image retrieval system in pathology | | |
| 2011-2016 | | Shutter-Speed Model DCE-MRI for Assessment of Response to Cancer Therapy (PI: Wei Huang, PhD, OHSU)  NCI 1U01CA154602-01A1  Sub PI: $32,689 (direct costs)  My role on this grant is to lead the informatics development efforts in Aim 3. I serve as the liaison with the NCI informatics community and the QIN informatics sub-group and work closely with Drs. Huang and Ryan to assist in integration of other data types with the imaging studies. | | |
| 2011-2017 | | Quantitative MRI of glioblastoma response  NCI 1U01CA154601-01  PI: $1,935,771.00 (direct costs)  The goal of this project is to develop advanced MR imaging techniques and tools that are effective in the early prediction of response to therapy in patients with glioblastoma. Through simulations, phantom studies, retrospective analysis as well as advanced imaging in prospective clinical trials, we hope to improve the reliability of advanced MRI methods as potential imaging biomarkers, and pave the way for clinically useful decision-making tool that can be applied in the context of multi-center clinical trials. | | |
| 2013 | | Protocol 6677 Reader MOU  ACRIN  PI: $2012 (direct costs)  We analyzed 750 datasets, provided by the Imaging Core Lab from the ACRIN 6677 trial, consisting of MR images and DICOM RT structures for a comparative analysis to determine agreement versus discordance between the two central readers. | | |
| 2013 | | A Prototype Quantitative Imaging Network portal using the HubZero collaborative platform  NCI Contract  PI: $43,593 (direct costs)  The scope of this project is to support the requirements analysis, design, and development of a prototype QIN Portal using the HUBzero collaborative platform | | |
| 2013-2016 | Automated retinopathy of prematurity classification using machine learning  NEI 1R21EY022387-01A1  PI: $274,158/ $121,696 (direct costs/PI share)  Retinopathy of prematurity (ROP) is a leading cause of childhood blindness in the United States and throughout the world. In this project based on the secondary analysis of existing data sets, we will develop a web-based, semi-automated system for identifying severe ROP with “plus disease” from retinal images. | | |
| 2014-2016 | MedICI— The Medical Imaging Challenge Initiative  Leidos Contract 14X229  Kalpathy-Cramer (PI): $350,034 (direct costs)  The goal of this project is to develop and implement infrastructure to conduct pilot challenges in imaging, digital pathology and genomics and to host three such challenges | | |
| 2013-2018 | Quantitative image informatics for cancer research (QIICR) (PI: Ron Kikinis, MD, BWH)  NCI 1U24CA180918-01  Sub PI: $346,195 (direct costs)  The purpose of this project is to develop and disseminate interoperable image informatics platform for development of software tools for quantitative imaging biomarker discovery. This platform will enable archival, organization, retrieval, dissemination of the data produced by the novel analysis tools and performance evaluation of quantitative analysis methods | | |
| 2014-2019 | Informatics Tools for Optimized Imaging Biomarkers for Cancer Research & Discovery  NCI 1U24 CA180927  Kalpathy-Cramer/ Rosen (MPI): $2,672,052/ $696,743 (direct costs/ PI share)  The goal of this project is to develop, deploy, and disseminate a Cloud-based Image Biomarker  Optimization Platform (C-BIBOP) for the large-scale central analysis of multi-institutional quantitative image data which can be linked to specific cancer types | | |
| 2015-2020 | Clinical and Genetic Analysis of Retinopathy of Prematurity (PI: Chiang)  NEI R01EY019474  Site PI: $225,305 (direct costs)  The long-term goal of this project is to identify clinical and genetic features of retinopathy of prematurity (ROP) development, and to analyze their relationships. Although biomedical research data are being generated at an enormous pace, much less work has been done to integrate disparate scientific findings across the spectrum from genomics to imaging to clinical medicine. Our overall hypotheses are that genetic factors are involved in the initiation and modulation of ROP, and that analysis of relationships among clinical, imaging, and genetic findings in ROP using bioinformatics approaches will improve understanding of disease pathogenesis and diagnosis | | |
| 2016 | Informatics Tools for Optimized Imaging Biomarkers for Cancer Research & Discovery  NCI 1U24 CA180927 (administrative supplement)  Rosen/Kalpathy-Cramer (MPI): $50,000(direct costs)  This collaborative project, funded by the supplement, performed a pilot study to combine radiology and pathology analysis on brain tumor data from TCIA. Our containerized tools, deployed in the cloud, allowed for easy interoperability between tools being developed at the parent institutions. | | |
| 2017-2018 | Informatics Tools for Optimized Imaging Biomarkers for Cancer Research & Discovery  NCI 1U24 CA180927 (administrative supplement)  Rosen/Kalpathy-Cramer (MPI): $50,000(direct costs)  This collaborative project, funded by the supplement, performed a pilot study to combine radiology and pathology analysis on brain tumor data from TCIA. Our containerized tools, deployed in the cloud, allowed for easy interoperability between tools being developed at the parent institutions. | | |
| 2017-2020 | Leidos Biomedical Research Inc 17X095  Kalpathy-Cramer (PI): $128,387 (direct costs)  Leidos contract for MedICI support. An ongoing contract from NCI/CBIIT to support the MedICI platform for challenges. Project has been approved | | |
| 2018-2019 | DeepROP – a Point-of-care system for Diagnosis of Plus Disease in Retinopathy of Prematurity Partners Innovation Discovery Grant Kalpathy-Cramer (PI): $43,275 (direct costs) We developed a system for the diagnosis of ROP. We are currently in the process of seeking FDA approval and commercialization opportunities | | |
| 2017 – 2020 | Evaluation of metastatic brain tumor heterogeneity and physiological response to immunotherapy using advanced MRI  1R01CA211238-01  Investigator (Gerstner PI)  The goal of this proposal is to use longitudinal MRI to characterize the biological response of BM to immunotherapy and to improve our understanding of how tumor heterogeneity may influence the response to immunotherapy. | | |
| 2019-2020 | AWS Machine Learning Research Awards ($50,000 in AWS credits) | | |
| 2020-2021 | NSF: ImagiQ: Asynchronous and Decentralized Federated Learning for Medical Imaging (PI: Baek)  Kalpathy-Cramer (subcontract PI): $41,516 (direct costs) | | |
| 2016-2021 | Assistive Integrative Support Tool for Retinopathy of Prematurity  NSF 1622542  Kalpathy-Cramer (PI): $410,839 (direct costs)  Retinopathy of Prematurity (ROP) is a leading cause of childhood blindness worldwide. The goal of this project is to develop and deploy a machine learning framework for the assessment and diagnosis of ROP severity. The prototype assistive integrative support tool (ASSIST) for ROP will quantitatively describe disease severity and offer diagnostic estimates, through clinical evidence classifiers trained jointly over expert-generated labels. | | |
| 2018 – 2023 | Multimodal MR-PET Machine Learning Approaches for Primary Prostate Cancer Characterization  R01CA218187  Investigator (Catana PI)  We propose to accelerate the translation of quantitative MR-PET to prostate cancer research and clinical applications. In particular, we will develop and validate an MR-based attenuation correction approach to guarantee that quantitatively accurate PET data are obtained in an integrated MR-PET scanner and then use machine learning approaches to characterize the aggressiveness of the tumors in patients undergoing radical prostatectomy | | |
| 2019 – 2022 | Minoryx Therapeutics S.L.  Investigator (Helmer PI)  CRSA: Imaging Centralized Services for the MT-2-02 Trial  We are performing the image analysis for this ALD gene therapy trial. | | |
| 2020-2022 | GE Health Systems  Kalpathy-Cramer (PI): $512,974 (direct costs)  Smart Devices Project—MRI Image Artifact Correction  The goal is to detect common MRI artifacts during acquisition, then to develop reconstruction algorithms and acquisition strategies that are robust to these artifacts. | | |
| 2020-2021 | Microsoft AI for Health grant for COVID research ($75,000 in Azure credits) | | |
| 2020-2021 | Evergrande Foundation/Harvard College  Kalpathy-Cramer (PI), $150,000  Collaborative AI for Covid-19 (CAI4C)  The goal of this collaborative project between MGB and the Guanghzou Institute of Respiratory Health, China is to advanced artificial intelligence (AI) techniques applied to medical imaging, clinical data, and laboratory testing to gain and disseminate knowledge about how to diagnose the pulmonary manifestations of COVID-19, quantify the severity of lung involvement, and predict the disease course and recovery in a variety of settings (in emergency rooms, respiratory clinics, ICUs, and therapeutic trials). | | |
| 2019-2022 | HHSN2612008000001E  Kalpathy-Cramer (PI): $182,668 (direct costs)  MedICI Help Desk Task Order2 to develop and support medical imaging challenges | | |
| 2019-2022 | Distributed Learning of Deep Learning Models for Cancer Research  U01CA242879  Rubin/Kalpathy-Cramer (MPI): $420,188 (direct costs)  The goal of this project is to develop technology that will enable researchers to create deep learning models for cancer applications without requiring sharing of patient data. Our work will enable development of more robust deep learning models to improve clinical decision making in cancer than models currently built on data from single institutions. | | |
| 2019-2025 | DISCOVERY: Determinants of Incident Stroke Cognitive Outcomes and Vascular Effects on RecoverY  Key Scientific Leadership, sub-study lead (Rost PI)  The major goal(s) of the project (<https://discoverystudy.org/scientific-leadership>) is to develop a collaborative nationwide network of clinical sites with access to diverse acute stroke US populations has the expertise, experience and capacity to execute a large prospective study that will unravel the mechanisms of post-stroke cognitive disability, early recovery after stroke, and potential targets for personalized prevention, intervention, and rehabilitation. | | |
| Year(s) funded | Role on Project/ Title of Project | |
| One sentence description of the purpose of the project | |

**Report of Local Teaching and Training**

Teaching of Students in Courses

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| --- | --- | --- |
| 2010 | Quantitative Research Methods | Oregon Health & Science University |
|  | Masters and PhD students | 3 hours/week for 10 weeks |
| 2011 | Quantitative Research Methods | Oregon Health & Science University |
|  | Masters and PhD students | 3 hours/week for 10 weeks |
| 2012 | Lecture on quantitative imaging and image retrieval, Medical Informatics (BMI702) | HMS, 3 hour lecture+ lab, homework and office hours |
| 2013 | Lecture on quantitative imaging and image retrieval, Medical Informatics (BMI702) | HMS, 3 hour lecture+ lab, homework and office hours |
| 2014 | Modules on imaging informatics and data visualization (BMI702) | HMS, 4 weeks of 3 hour lecture +lab, homework and office hours |
| 2015 | Lecture on data visualization, Medical Informatics (BMI702) | HMS, 3 hour lecture+ lab, homework and office hours |
| 2016/2017 | Clinical Imaging Informatics | MIT, IAP 4week long course with lectures and lab |
| 2017 | Lecture on machine learning in medical imaging | MIT, HST.563 Imaging Biophysics and Clinical Applications |
| 2018 | Lecture on machine learning (BMI702) | HMS, 3 hour lecture+ lab, homework and office hours |
| 2019 | Lecture on machine learning (BMI702) | HMS, 3 hour lecture+ lab, homework and office hours |
| 2020 | Lecture on machine learning (BMI702) | HMS, 3 hour lecture+ lab, homework and office hours |

[Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)](http://cv.hms.harvard.edu/index.php?page=residents)

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| --- | --- | --- |
| 2009-20011 | Clinical Image Retrieval | Oregon Health & Science University |
|  | Post-doctoral research fellows | One hour seminar each year |
| 2014-2016 | MRI image analysis | Radiology Resident Advanced MRI Rotation, Martinos Center, MGH |
| 2019-2020 | AI in radiology | Resident lecture |

[Laboratory and Other Research Supervisory and Training Responsibilities](http://cv.hms.harvard.edu/index.php?page=lab)

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| --- | --- | --- |
| 2008 | Mentored a summer intern funded through the NLM summer internship program | Daily mentorship for 10 weeks |
| 2009 | Mentored a summer intern funded through the NLM summer internship program | Daily mentorship for 10 weeks |
| 2010 | Mentored two students funded through the NLM summer internship program. | Daily mentorship for 10 weeks |
| 2010 | Mentored two students funded through my K99-R00 grant | Daily mentorship for 10 weeks |
| 2010 | External mentor for Capstone project for 4 students at Portland State University. The goal of this project was to create a device for ‘Hand Function Assessment’ for applications in vascular surgery | Bimonthly mentorship for a semester |
| 2010-2012 | Mentored high school students funded through the OHSU’s CURE Program (Cancer Institute’s Minority Summer Internship Program) | Weekly mentorship for 10 weeks |
| 2011-date | Supervised Research fellows, instructors, programmers at the AA Martinos Center for Biomedical Imaging, MGH | Weekly mentorship |
| 2015-2016 | Supervised medical student thesis | Weekly mentorship, thesis |

Formally Mentored Medical School and Graduate Students

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Years | Name | Degree, institution | Role in training | Current position |
| 2011-2014 | Pavlina Polaskova | MD | Post-doctoral supervisor, co-authored a number of publications | PhD Student, Czech Republic |
| 2011-2015 | Kourosh Jafari-Khouzani | PhD | Post-doctoral supervisor, co-authored a number of publications | Senior Research Scientist, iCAD |
| 2014-2016 | Yangming Ou | PhD | Post-doctoral supervisor, co-authored a number of publications | Instructor, Harvard Medical School |
| 2016-date | Ken Chang | MD | PhD supervisor (completed) | MD/PhD student,  Harvard Medical  School |
| 2016-date | James Brown | PhD | Post-doctoral supervisor, MGH | Senior Lecturer (University of Lincoln) |
| 2018 | Szu-Yeu, Hu, | MD | MS Capstone supervisor, Dept. Biomedical Informatics, HMS | Postdoctoral Fellow, MGH |
| 2018-date | Katharina Hoebel | MD | PhD supervisor, currently working in my lab | PhD student, MIT HST MEMP program |
| 2018-date | Jay Patel | BS | PhD supervisor, currently working in my lab | PhD student, MIT HST MEMP program |
| 2018-2019 | Malika Shahrawat | BS | MS thesis supervisor, MIT EECS | Data Scientist at Munich American Reassurance Company |
| 2018 | Cheng Che Tsai | MD | MS Capstone supervisor, Dept. Biomedical Informatics, HMS | Postdoctoral Fellow, MGH |
| 2019-date | Praveer Singh | PhD | Post-doctoral supervisor, co-authored a number of publications | Postdoctoral Fellow, MGH |
| 2019-2020 | Sean Ko | MEng | MS thesis supervisor, MIT EECS | MS student, MIT EECS program |
| 2019-2020 | Bryan Chen | MEng | MS thesis supervisor, MIT EECS | MS student, MIT EECS program |
| 2020-date | Mishka Gidwani | BS | PhD supervisor, currently working in my lab | PhD student, Cleveland Clinic |
| 2020 | Lucy Liu | MBI | MS Capstone supervisor, Dept. Biomedical Informatics, HMS | MS student, Dept. Biomedical Informatics, HMS |
| 2020-date | Christopher Bridge | PhD | Post-doctoral supervisor | Senior Data Scientist, MGB |
| 2020-2022 | Charles Lu | MS | Supervisor | Data Scientist, MGB |
| 2020-2021 | Vibha Aggarwal | BS | MS thesis supervisor, MIT EECS | MS student, MIT  EECS program |
| 2020-2022 | Eric Yang | BS | Capstone thesis supervisor, HMS | MS student, Dept. Biomedical Informatics |
| 2021-2022 | Sherif Shamseldein | MS | Capstone thesis supervisor, HMS | MS student, MMSCI program, HMS |
| 2020-date | Syed Rakin Ahmeed | BS | PhD supervisor, currently working in my lab | PhD student, Harvard Biophysics |

Other Mentored trainees

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| --- | --- | --- | --- | --- |
| Years | Name | Degree, institution | Role in training | Current position |
| 2011-2015 | Esra Ataer-Cansizoglu | PhD, Northeastern University | External thesis committee member, weekly meetings, co-authored numerous publications | Research scientist, MERL, Boston |
| 2011-2013 | James McKanna | PhD, OHSU | External thesis committee member, quarterly thesis committee meetings | Senior Data Scientist, Wayfair |
| 2015 | Alba García Seco de Herrera | PhD, HES-SO Switzerland | External supervisor for PhD thesis, reviewed thesis, attend thesis defense, provided written critique | Lecturer, School of Computer Science and Electronic Engineering, University of Essex, UK |
| 2016 | Carlos Correa | MS, University of Bern, Switzerland | External reviewer for Master’s thesis, reviewed thesis, provided written critique | Post-doctoral Fellow, University of Bern |
| 2016-2019 | Ryan Swan | PhD, OHSU | External thesis committee member, weekly meetings, co-authored numerous publications | Machine Learning Engineer at Optum |
| 2017 | Kyra Donahue | Middle school student | Weekly meetings | High school student |
| 2018, 2019 | Arthi Nagarajan | High school | Weekly meetings | Undergrad at Carnegie Mellon University |
| 2017, 2018 | Laurel Parsons | High school | Weekly meetings | Undergrad at U. Mass Amherst |
| 2018-date | Aaron Coyner | PhD, OHSU | External thesis committee member, weekly meetings, co-authored numerous publications | PhD student at OHSU |
| 2018-2021 | Manuel Morales | PhD, MIT | External thesis committee member, weekly meetings, co-authored numerous publications | Post doc at HMS |
| 2019-date | Nishanth Arun | MS, CMU | Mentor for internship, thesis supervisor | Graduate student at CMU |
| 2020-date | Ashwin Vaswani | B.Tech, BITS Pilani | Mentor for internship, thesis supervisor | Intern at Google, India |
| 2020-2021 | Mehak Aggarwal | MS, IIT Delhi | Mentor for internship | Data scientist at Sybill, India |
| 2020-date | Sharut Gupta | MS, IIT Delhi | Mentor for internship | IIT, Delhi |
| 2021-date | Andreanne Lemay | MS, Polytechnique Montreal university | Mentor for internship | Graduate student in Montreal |
| 2021 | Abdullah Ahmed | MD, Brown University | Mentor for internship | Medical school at Brown |
| 2020-date | Shruti Raghavan | BTech, IIIT Coimbatore | Mentor for internship |  |
| 2021-date | Sakshi Bhandari | MS, IIT Delhi | Mentor for internship | IIT, Delhi |
| 2021-date | Sourav Kumar | MS, IIT Delhi | Mentor for internship | IIT, Delhi |

Formal Teaching of Peers (e.g., CME and other continuing education courses)

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| 2015 | SNO sunrise session, Neuroimaging, SNO Annual Meeting, | SNO Annual meeting, San Antonio, TX |
| 2015, 2017 | RSNA Faculty refresher course, Quantitative Imaging/Radiomics, Chicago, IL | RSNA Annual meeting, Chicago, IL |
| 2016 | How to teach a machine, Association of University Radiologists Annual meeting | Hollywood, FL |
| 2018 | Artificial Intelligence in Medical Imaging | MGH, Charlestown, MA |
| 2019 | Artificial Intelligence in Medical Imaging | MGH, Charlestown, MA |
| 2020 | Artificial Intelligence in Medical Imaging | MGH, Charlestown, MA |
| 2020 | AI in Neuroimaging:  Opportunities and Challenges | BWH, Boston, MA |
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Local Presentations

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| --- | --- |
| 4/2012 | Quantitative Imaging to Assess Therapeutic Response in Tumors at the “Imaging Biomarkers in Clinical Trials: Current Practice & Future Trends” CME Course at MGH |
| 10/2011 | Invited talk at the 5th Annual Rubinstein Research Retreat for the Department of Radiation Medicine, OHSU, Portland, OR |
| 3/2012 | “Developing novel biomarkers- Integrating advanced imaging with genomic data” at the Biomedicine in 4D conference, Oregon Health & Science University |
| 4/2012-6/2012 | Quantitative Research Methods (10 week distance/in-class course), Oregon Health & Science University |
| 4/2013-6/2013 | Quantitative Research Methods (10 week distance/in-class course), Oregon Health & Science University |

**Report of Regional, National and International Invited Teaching and Presentations**

Regional

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| --- | --- |
| 9/24/19 | HMS Neuroradiology Post Graduate Course, Boston, MA, “Assessment of Brain Tumors with Deep Learning Methods” |

National

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| --- | --- |
| 12/2010 | Invited talk on “Multimodal Image Retrieval – ImageCLEF and beyond” at Lister Hill Center, National Library of Medicine, Bethesda, MD |
| 11/2012 | Invited talk on the QIN lung tumor segmentation project, Radiomics Workshop, Moffitt Cancer Center, FL |
| 11/2013 | Invited talk on the QIN lung tumor segmentation project, Radiomics Workshop, Moffitt Cancer Center, FL |
| 12/2013 | Invited talk about “Inter-rater variability in segmentation for glioblastoma multiforme:ACRIN 6677”, ECOG-ACRIN Fall meeting, Hollywood, FL |
| 5/2014 | Invited talk CI4CC <http://www.ci4cc.org/events/spring2014> |
| 11/2014 | Invited talk Rubinstein Retreat, Department of Radiation Medicine, OHSU, OR |
| 10/2015 | Invited talk, CI4CC meeting, La Jolla, CA |
| 4/2016 | Invited talk, Quantitative Imaging Network, Annual Face to face meeting, Rock creek, MD |
| 7/2016 | Invited talk, NCI CBIIT Speaker series, Rock Creek, MD |
| 10/2016 | Invited talk, Radiomics Workshop, Moffitt Cancer Center, FL |
| 11/2015 | Invited talk, Society for Neuro Oncology (SNO) annual meeting, San Antonio, TX |
| 11/2016 | CNS Anticancer Drug Discovery and Development Conference Speaker, Scottsdale, AZ |
| 11/2016 | Invited talk, AMIA Biomedical Imaging Informatics Working Group AMIA 2016 pre-symposium |
| 11/2016 | Invited talk, IBIIS Seminar series, Stanford University, Palo Alto, CA |
| 4/2017 | Invited panelist, Quantitative Imaging Network Annual Face to Face meeting, Rockville, MD |
| 5/2017 | Invited talk, Annual meeting of the Association of Academic Radiologist (AUR), Hollywood, FL |
| 5/2017 | Invited panelist, Quantitative Imaging Biomarker Alliance (QIBA) Annual meeting, hosted by RSNA, Alexandria VA |
| 5/2017 | Invited talk, GTC, DC |
| 10/2017 | Invited talk, HubWeek, Boston |
| 11/2017 | Invited talk, Science Council FOReM (Focused Research Meeting): Image Guided Therapy, AAPM, Alexandria, VA |
| 2/2018 | Invited talk, MD Anderson Cancer Center, Houston, TX |
| 4/2018 | Invited talk, Cancer Imaging Steering Committee, NCI, Rock Creek, MD |
| 4/2018 | Invited talk, Marvin Zelen Symposium, Boston, MA |
| 4/2018 | Invited talk, Moffitt Cancer Center, Tampa, FL |
| 7/2018 | Invited talk, NRG Oncology meeting, Philadelphia, PA |
| 6/2018 | Invited talk, Practical Big Data Workshop, Ann Arbor, MI |
| 8/2018 | Invited talk, NIBIB/RSNA Workshop on AI in medical imaging, Bethesda, MD |
| 10/2018 | Invited talk, ISMRM Machine Learning Workshop II, Washington DC |
| 11/2018 | Invited talk, RSNA, Chicago, IL, Special Interest Session: Demystifying Machine Learning and Artificial Intelligence for the Radiologist, “The Reality: Current Application of Machine Learning and Artificial Intelligence in Clinical Radiology and Research” (given by Ken Chang due to travel issues) |
| 11/2018 | Invited talk, RSNA, Chicago, IL, Novel Discoveries Using the NCI's Cancer Imaging Archive (TCIA) Public Data Sets |
| 11/2018 | Invited talk, RSNA, Chicago, IL, Machine Learning for Radiotherapy Applications, “Machine learning Tumor Classification” |
| 3/24/2019 | Invited talk, MD Anderson Cancer Center, Houston, TX, MRI Educational Seminar, “Machine Learning/ Deep Learning”. |
| 3/29/2019 | Invited talk, AACR, Atlanta, GA, Tools for Deep Learning in Cancer Image Analysis, “Deep Learning in Cancer Imaging: Promises and Challenges” |
| 4/1/2019 | Invited talk, AACR, Atlanta, GA, “Radiomics -Separating the Hope from the Hype” |
| 4/2/2019 | Invited talk, UCSD Grand Rounds, San Diego, CA, “AI in Radiology – a Practitioners’ Perspective” |
| 4/2/2019 | Invited talk, San Diego Radiological Society Meeting, San Diego, CA, “The Hope, the Hype and the Reality of AI in Radiology” |
| 4/8/2019 | Invited talk, World Medical Innovation Forum (WMIF), Boston, MA, “DeepROP: Point of Care System for the Diagnosis of Plus Disease in Retinopathy of Prematurity” |
| 4/26/2019 | Invited talk, Podos Symposium, Vancouver BC, “AI in Retinopathy of Prematurity: Opportunities and Challenges” |
| 5/18/2019 | Invited talk, 2019 Annual Conference of the American Society of Neuroradiology (ASNR), Boston, MA, “Applications of AI to Brain Tumor Imaging” |
| 5/22/2019 | Invited talk, LDV Vision Summit, New York, NY, panelist “Computer Vision Applications in Medicine & Health” |
| 5/31/2019 | Invited talk, RSNA Spotlight course, Radiology in the Age of AI, San Francisco, CA, “AI for multi-institutional collaborations” |
| 6/20/2019 | Invited talk, AAO Board of Trustees, Detroit, MI, “The Hope, the Hype and the Reality of AI in Radiology” |
| 6/25/2019 | Invited talk, 2019 SIIM-ACR Data Science Summit, Aurora, CO, “Mitigating Bias in Algorithm Development” |
| 6/25/2019 | Invited talk, 2019 SIIM-ACR Data Science Summit, Aurora, CO, “Distributed Learning in AI Model Development” |
| 6/25/2019 | Invited talk, 2019 SIIM-ACR Data Science Summit, Aurora, CO, “Ethics in Algorithm Training” |
| 7/15/2019 | Invited talk, AAPM, San Antonio, TX, “AI for Predicting Treatment Outcomes” |
| 9/8/2019 | Invited talk, ACR-RLI Summit, Wellesley, MA, “AI in Medical Imaging” |
| 9/18/2019 | Invited talk, ASTRO, Chicago, IL, Panel of Emerging Career Paths in Radiation Oncology Big Data, “Lessons from the field, building an informatics career with a focus on imaging” |
| 12/1/2019 | Creating Publicly Accessible Radiology Imaging Resources for Machine Learning and AI, RSNA 2019 |
| 12/2/2019 | “Brain Tumors and Other Lesions: How Will AI Help?”, CME Course, RSNA 2019 |
| 12/2/2019 | “Crowds Cure Cancer”, RSNA 2019, |
| 12/4/2019 | “Machine Learning Tumor Classification”, CME Course, RSNA 2019 |
| 12/5/2019 | “Role of challenges and their requirements”, CME Course, RSNA 2019 |
| 2/1/2020 | Invited talk, “What is AI and how is it changing medicine?”, AUPO, Palm Springs, CAL |
| 2/4/2020 | Invited talk, “A Brief Survey of the AI Validation Landscape and Why We Need It”, IBM Symposium on AI for Biomedical Imaging Across Scales, IBM Research Almaden, CA |
| 4/25/2020 | Invited talk, “Machine Learning and AI in COVID19”, MetroHacks Women (Virtual) |
| 6/16/2020 | SIIM Webinar, “Federated Learning”, SIIM U Online |
| 6/23/2020 | Invited talk, “Science of Evaluation and Explainability”, Virtual 2020 SIIM-ACR data science summit |
| 6/24/2040 | Opportunities and challenges to developing robust AI algorithms, SIIM Annual Meeting (Virtual) |
| 7/24/2020 | Invited talk, Society for Artificial Intelligence and Deep Learning (SAiDL) (Virtual) |
| 8/5/2020 | Invited talk, “Collaborative Learning: Improving Model Robustness Without the Need for Data Sharing”, Stanford Artificial Intelligence in Medicine & Imaging, Symposium (Virtual) |
| 8/27/2020 | Invited Talk, Machine Learning in Glioma Genetics and Stroke, ENRS annual meeting, Burlington, VT (virtual) |
| 10/4/2020 | Keynote, 1st MICCAI Workshop on “Distributed And Collaborative Learning”, MICCAI, Lima, Peru (virtual) |
| 10/5/2020 | Invited Panelist, RSNA & MICCAI 2020 Panel – “Radiology and Machine Learning: from Dialogue to Clinical Practice”, MICCAI, Lima, Peru (virtual) |
| 10/8/2020 | Keynote, “Radiomics & Radiogenomics with Deep Learning in Neuro-oncology”, RNO-AI-2020, MICCAI, Lima, Peru (virtual) |
| 10/24/2020 | Invited talk, “Challenges in AI: brittleness, explainability and bias “,AI-Ophthalmology (Ai-O) Symposium, University of Illinois, Chicago (virtual) |
| 10/27/2020 | Invited talk, “Collaborative Learning: Improving Model Robustness Without the Need for Data Sharing, ACR Imaging Informatics Summit (virtual) |
| 11/29/2020 | Invited talk, “Creating Publicly Accessible Radiology Imaging Resources for Machine Learning and AI”, RSNA 2020 |
| 3/16/2021 | Invited talk, “The Predictive Value of Deep Learning and Radiomics in Medical Imaging”, APS March 2021, Boston, MA (virtual) |
| 3/24/2021 | Invited talk, ”Challenges in AI: brittleness, explainability and bias”, University of Iowa Seminar Series (virtual) |
| 4/13/2021 | Invited talk, “Collaborative Learning in Medical Imaging: Opportunities and Challenges”, GTC 2021, (virtual) |
| 4/29/2021 | Invited talk “Collaborative Learning in Medical Imaging: Opportunities and Challenges”, Transatlantic AI CAU-USCF: Fighting the Pandemic with Federated Learning, (virtual) |
| 5/24/2021 | Invited talk, “Infrastructure for Machine Learning”, SIIM (virtual) |
| 7/13/2021 | Grand Rounds, “AI  in radiology- opportunities and challenges”, Dept. Radiology, University of Pennsylvania, (virtual) |
| 8/20/2021 | Invited talk, “Distributed Learning and Applications”, ENRS Annual meeting (virtual) |
| 9/16/2021 | Invited talk, “Brain Tumors and AI”, ASFNR Annual meeting, Santa Fe, NM |
| 2/22/2022 | Keynote presentation, “Deep Learning in Medical Imaging: A practical guide to opportunities and challenges”, SPIE medical imaging, San Diego, CA |
| 2/23/2022 | Invited talk, “Facilitating imaging related AI solutions”, ACR National Lung Cancer Round Table - Advanced Imaging Task Group, SPIE medical imaging, San Diego, CA |
| 5/13/2022 | Invited webinar, “Learning from Multi-institutional Data: A Practical Guide”, NIH Data sharing and reuse seminar series. |
| 6/30/2033 | Panelist, Technical Advancements in Clinical Machine Learning - What's New in 2021 , Precision Medicine World Conference, Santa Clara, CA |
| 7/23/2022 | Invited Speaker, “Principles of Distribution Shift” Workshop at ICML 2022, Baltimore, MD |

International

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| 10/2015 | Invited talk, MICCAI workshop, Munich, Germany |
| 8/2015 | Invited talk, Northeastern University China, Shenyang, China |
| 12/2016 | Invited talk, The 24th annual meeting of the Japanese vascular biology and medicine organization, Nagasaki, Japan |
| 12/2016 | Invited talk, GTC-X Conference, Mumbai, India |
| 9/2017 | Invited talk, A\*STAR, Singapore |
| 4/2018 | Invited talk, ESTRO, Barcelona |
| 10/2018 | Invited talk, ISMRM Workshop on Advances in Multiscale Detection in Cancer, Dublin, Ireland |
| 5/15/19 | Invited talk, The Wizardry of AI and Machine Learning in Cancer Imaging, Champalimaud Centre for the Unknown, Lisbon, Portugal, International Cancer Imaging Society, “Image Annotation and Data Curation” |
| 3/7/2020 | Invited talk, Artificial intelligence in brain imaging- opportunity and challenges, WINNERS ( Women In Neurology – New and Emerging Research Symposium) Conference, Bhubaneswar, Odisha, India |
| 11/23/2020 | First Hessian conference on AI-ready health care, TU-Darmstadt (virtual) |
| 3/16/2021 | Invited panelist, Launching AI platforms for the NHS: 2021-2023, London Medical Imaging & Artificial Intelligence Centre for Value Based Healthcare (virtual) |
| 5/18/2021 | Invited talk “Technical Benchmarking for Image Analysis/Prediction Tools”, ISMRM 2021 (virtual) |
| 5/18/2021 | Invited talk, “The Promise of AI in SARS-CoV-2”, ISMRM 2021 (virtual) |
| 9/27/2021 | Christian Barillot keynote speaker, MICCAI BrainLes 2021 workshop, Strasbourg, France (virtual) |
| 03/24/2022 | Invited panelist, “Democratizing health data for Collaborative Research”, TiE Con Delhi-NCR |
| 06/16/2022 | Keynote Speaker, Robarts Research Retreat, Western University in London, Ontario, Canada |

**Report of Technological and Other Scientific Innovations**

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| --- | --- |
| On the use of non-spherical carriers for substrate chemi-mechanical polishing (1998) | US Patent 5,769,692 |
| Method for determining optical constants prior to film processing to be used improve accuracy of post-processing thickness measurements (1998) | US Patent 5,835,226 |
| Slurry formulation for chemical mechanical polishing of metals (1999) | US Patent 5,866,031 |
| Chemical mechanical polishing pad slurry distribution grooves (1999) | US Patent 5,882,251 |
| Controlling groove dimensions for enhanced slurry flow (1999) | US Patent 5,888,121 |
| Use of ethylene glycol as a corrosion inhibitor during cleaning after metal chemical mechanical polishing (1999) | US Patent 5,893,756 |
| Use of hydrofluoric acid for effective pad conditioning (1999) | US Patent 5,913,715 |
| Chemical-mechanical polishing pad conditioning systems (2000) | US Patent 6,093,280 |
| Modifying contact areas of a polishing pad to promote uniform removal rates (2001) | US Patent 6,254,456 |
| Apparatus and method for linearly planarizing a surface of a semiconductor wafer (2002) | US Patent 6,464,566 |
| Microchannel formation for fuses, interconnects, capacitors, and inductors (2005) | US Patent 6,784,045 |
| Method for SRAM bitmap verification (2008) | US Patent 7,467,363 |
| Target Contour Testing/Instructional Computer Software (TaCTICS): A Novel Training and Evaluation Platform for Radiotherapy Target Delineation (2010) | Software |
| QTIM Suite, a toolkit for quantitative image analysis in cancer | Software |
| MedICI – a platform for medical imaging challenges to support radiology, pathology and omics challenges | Software |
| C-BIBOP – cloud-based image biomarker optimization platform | Software |
| DeepROP- open-source software for the classification of plus disease in retinopathy of prematurity | Software (Breakthrough status from the FDA), licensed to Boston AI |

**Report of Education of Patients and Service to the Community**

Activities

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| 2009-2012 | Mentored high school students participating in the Intel International Science and Engineering Fair |
| 2016 | Mentored high school students from Belmont high school throughout the year and summer |
| 2017 | Represented MGH at the Women in Data Science Conference, Microsoft, Cambridge |
| 2017 | Judge at Timilty middle school science fair |
| 2018 | Oregon Public Broadcasting, <https://www.opb.org/news/article/artificial-intelligence-ai-childhood-eye-disease/> |
| 2020 | Presented at the Metrohacks virtual meeting to high school STEAM students |
| 2020 | COVID-19 with technology <https://siliconangle.com/2020/08/10/researchers-deploy-nvidias-latest-ai-systems-battle-covid-19/> |
| 2020 | WSJ:Covid-19 Pandemic Underscored Importance of IT in Medical <https://www.wsj.com/articles/covid-19-pandemic-underscored-importance-of-it-in-medical-research-11605263401> |
| 2020 | TechTarget: COVID-19 research generates big data, invaluable info  <https://searchstorage.techtarget.com/news/252492333/COVID-19-research-generates-big-data-invaluable-info> |
| 2020 | Open source project MONAI <https://venturebeat.com/2020/04/21/nvidia-launches-project-monai-ai-framework-for-health-care-research-in-alpha/> |
| 2020 | Open source project MONAI <https://analyticsindiamag.com/nvidia-launches-monai-framework-to-accelerate-ai-in-healthcare/> |

PUBLICATIONS

Peer reviewed publications in print or other media

<https://scholar.google.com/citations?user=8JTcfFMAAAAJ&hl=en> (H-index 58)

<https://orcid.org/0000-0001-8906-9618>

<https://www.researchgate.net/profile/Jayashree_Kalpathy-Cramer>

Research investigations

1. **Kalpathy-Cramer J**, Murarka SP, Srikrishnan KV, Patrick W. Sodium passivation dependence on phosphorus concentration in tetraethylorthosilicate plasma-enhanced chemical vapor deposited phosphosilicate glasses. Journal of Applied Physics. 1993;73(5):2458-2461.
2. **Kalpathy-Cramer J**, Murarka SP, Stress-temperature behavior of electron cyclotron resonance oxides and their correlation to hydrogenous species concentration, Journal of Applied Physics. 1995;77(7):3048-3055.
3. Cunningham, **Kalpathy-Cramer J**, Kirchner EJ, Berman M, Process development and monitoring with atomic force profiling for CMP, Solid State Technology, 2000.
4. **Kalpathy-Cramer J**, Hersh WR, Effectiveness of global features for automatic medical image classification and retrieval - The experiences of OHSU at ImageCLEFmed, Pattern Recognit. Lett. 2008;29(15):2032-2038 (PMID: 19884953).
5. Müller H, **Kalpathy-Cramer J**, Hersh WR, Geissbuhler A, Using medline queries to generate image retrieval tasks for benchmarking, Stud. Health Technol. Inform. 2008;136:523-528 (PMID: 18487784)
6. Hersh WR, **Kalpathy-Cramer J**, Müller H, The ImageCLEFmed Medical Image Retrieval Task Test Collection. Journal of Digital Imaging. 2009;22(6):648-655 (PMID:18769965).
7. Müller H, **Kalpathy-Cramer J**, Analyzing the content out of context - features in medical image retrieval, Int. J. on Healthcare Information Systems and Informatics, 2009, 4(1):88-98.
8. **Kalpathy-Cramer J**, Bedrick S, Radhouani S, Hersh W, Eggel I, Kahn CE Jr, Müller H., Retrieving similar cases from the medical literature - the ImageCLEF experience, Stud Health Technol. Inform., 2010;160(Pt 2):1189-1193 (PMID 20841872).
9. Wang SJ, **Kalpathy-Cramer J**, Fuller CD, Thomas CR, An Interactive Tool for Individualized Estimation of Conditional Survival in Rectal Cancer, Annals of Surgical Oncology, 2011;18(6):1547-1552 (PMID:21207162)
10. Wang SJ, Wissel AR, Ord CB, **Kalpathy-Cramer J**, Fuller CD, Holland JM, Gross ND, Individualized Estimation of Conditional Survival for Patients with Head and Neck Cancer, Otolaryngol Head Neck Surg. 2011 Jul;145(1):71-3. (PMID:21493289)
11. Kahn CE, **Kalpathy-Cramer J**, Lam CA, Eldredge C, Kahn CE, Accurate Determination of Imaging Modality using an Ensemble of Text- and Image-based Classifiers, J Digit Imaging. 2012 Feb;25(1):37-42.(PMID:21748413)
12. Wang SJ, Lemieux A, **Kalpathy-Cramer J**, Ord CB, Walker G, Fuller CD, Kim JS, Thomas CR, A Nomogram for Predicting the Benefit of Adjuvant Chemoradiotherapy for Resected Gallbladder Cancer, J Clin Oncol. J Clin Oncol. 2011 Dec 10;29(35):4627-32. (PMID:22067404)
13. Fedorov A, Beichel R, **Kalpathy-Cramer J**, Finet J, Fillion-Robin JC, Pujol S, Bauer C, Jennings D, Fennessy F, Sonka M, Buatti J, Aylward S, Miller JV, Pieper S, Kikinis R. 3D Slicer as an image computing platform for the Quantitative Imaging Network. Magn Reson Imaging. 2012 Nov; 30(9):1323-41.( PMID: 22770690)
14. Awan M, **Kalpathy-Cramer J,** Gunn GB, Beadle BM, Garden AS, Phan J, Holliday E, Jones WE, Maani E, Patel A, Choi J, Clyburn V, Tantiwongkosi B, Rosenthal DI, Fuller CD, Prospective assessment of an atlas-based intervention combined with real-time software feedback in contouring lymph node levels and organs-at-risk in the head and neck: Quantitative assessment of conformance to expert delineation, Practical Radiation Oncology, 20 December 2012 (PMID: 23853674)
15. Ataer-Cansizoglu E, Bas E, **Kalpathy-Cramer J**, Sharp GC, Erdogmus D, Contour-based shape representation using principal curves, Pattern Recognition, 2013 Apr; 46(4): 1140–1150
16. Keck KM, **Kalpathy-Cramer J**, Ataer-cansizoglu E, You S, Erdogmus D, Chiang MF, Plus disease diagnosis in retinopathy of prematurity: vascular tortuosity as a function of distance from optic disk, Retina 2013 Sep;33(8):1700-7. (PMID: 23538582)
17. **Kalpathy-Cramer J,** Awan M, Bedrick S, Rasch CRN, Rosenthal DI, Fuller CD, Development of a Software for Quantitative Evaluation Radiotherapy Target and Organ-at-Risk Segmentation Comparison, J Digit Imaging.. 2014 Feb;27(1):108-19. doi: 10.1007/s10278-013-9633-4. PMID: 24043593; PMCID: PMC3903974.
18. Pinho MC, Polaskova P, **Kalpathy-Cramer J**, Jennings D, Emblem KE, Jain RK, Rosen BR, Wen PY, Sorensen AG, Batchelor TT, Gerstner ER., Low Incidence of Pseudoprogression by Imaging in Newly Diagnosed Glioblastoma Patients Treated With Cediranib in Combination With Chemoradiation. Oncologist. Oncologist. 2014 Jan;19(1):75-81. doi: 10.1634/theoncologist.2013-0101. Epub 2013 Dec 5. PMID: 24309981; PMCID: PMC3903059.
19. Batchelor TT, Gerstner ER, Emblem KE, Duda DG, **Kalpathy-Cramer** **J**, Snuderl M, Ancukiewicz M, Polaskova P, Pinho MC, Jennings D, Plotkin SR, Chi AS, Eichler AF, Dietrich J, Hochberg FH, Lu-Emerson C, Iafrate AJ, Ivy SP, Rosen BR, Loeffler JS, Wen PY, Sorensen AG, Jain RK. Improved tumor oxygenation and survival in glioblastoma patients who show increased blood perfusion after cediranib and chemoradiation. Proc Natl Acad Sci., 2013 Nov 19; 110(47):19059-64. (PMID: 24190997)
20. **Kalpathy-Cramer J,** Freymann JB, Kirby JS, Kinahan PE, Prior FW, Quantitative Imaging Network Data Sharing and Competitive Algorithm Validation Leveraging The Cancer Imaging Archive, Translational Oncology, Transl Oncol. 2014 Feb 1;7(1):147-52. eCollection 2014 Feb. (PMID: 24772218)
21. Huang W, Li X, Chen Y, Li X, Chang MC, Oborski MJ, Malyarenko DI, Muzi M, Jajamovich GH, Fedorov A, Tudorica A, Gupta SN, Laymon CM, Marro KI, Dyvorne HA, Miller JV, Barbodiak DP, Chenevert TL, Yankeelov TE, Mountz JM, Kinahan PE, Kikinis R, Taouli B, Fennessy F, **Kalpathy-Cramer J**., Variations of dynamic contrast-enhanced magnetic resonance imaging in evaluation of breast cancer therapy response: a multicenter data analysis challenge. Transl Oncol. 2014 Feb 1;7(1):153-66. eCollection 2014 Feb. (PMID: 24772219)
22. Gutman DA, Dunn WD Jr, Cobb J, Stoner RM, **Kalpathy-Cramer J**, Erickson B., Web based tools for visualizing imaging data and development of XNATView, a zero footprint image viewer. Front Neuroinform. 2014 May 27;8:53, (PMID: 24904399)
23. Obuchowski NA, Reeves AP, Huang EP, Wang XF, Buckler AJ, Kim HJ, Barnhart HX, Jackson EF, Giger ML, Pennello G, Toledano AY, **Kalpathy-Cramer J,** Apanasovich TV, Kinahan PE, Myers KJ, Goldgof DB, Barboriak DP, Gillies RJ, Schwartz LH, Sullivan AD; (for the Algorithm Comparison Working Group). Quantitative imaging biomarkers: A review of statistical methods for computer algorithm comparisons, Stat Methods Med Res. 2015 Feb;24(1):68-106. PMID: 24919829
24. Obuchowski NA, Barnhart HX, Buckler AJ, Pennello G, Wang XF, **Kalpathy-Cramer J,** Kim HJ, Reeves AP; for the Case Example Working Group., Statistical issues in the comparison of quantitative imaging biomarker algorithms using pulmonary nodule volume as an example, Stat Methods Med Res. 2015 Feb;24(1):107-40. PMID: 24919828.
25. **Kalpathy-Cramer J**, Gerstner ER, Emblem KE, Andronesi OC, Rosen B., Advanced magnetic resonance imaging of the physical processes in human glioblastoma. Cancer Res. 2014 Sep 1;74(17):4622-37. PMID: 25183787
26. Awan M, Dyer BA, **Kalpathy-Cramer J**, Bongers E, Dahele M, Yang J, Walker GV, Thaker NG, Holliday E, Bishop AJ, Thomas CR Jr, Rosenthal DI, Fuller CD., Auto-segmentation of the brachial plexus assessed with TaCTICS - A software platform for rapid multiple-metric quantitative evaluation of contours., Acta Oncol. 2015 Apr;54(4):557-60.
27. Ataer-Cansizoglu E1, **Kalpathy-Cramer J**, You S, Keck K, Erdogmus D, Chiang MF.,Analysis of Underlying Causes of Inter-expert Disagreement in Retinopathy of Prematurity Diagnosis: Application of Machine Learning Principles., Methods Inf Med. 2015 Jan 12;54(1):93-102, PMID: 25434784.
28. Mohamed AS1, Ruangskul MN, Awan MJ, Baron CA, **Kalpathy-Cramer J**, Castillo R, Castillo E, Guerrero TM, Kocak-Uzel E, Yang J, Court LE, Kantor ME, Gunn GB, Colen RR, Frank SJ, Garden AS, Rosenthal DI, Fuller CD., Quality Assurance Assessment of Diagnostic and Radiation Therapy-Simulation CT Image Registration for Head and Neck Radiation Therapy: Anatomic Region of Interest-based Comparison of Rigid and Deformable Algorithms, Radiology. 2015 Mar;274(3):752-63. PMID: 25380454.
29. Demner-Fushman D, Antani S, **Kalpathy-Cramer J**, Müller H., A decade of community-wide efforts in advancing medical image understanding and retrieval. Comput Med Imaging Graph. 2015 Jan;39:1-2, PMID: 25572585
30. **Kalpathy-Cramer J**, de Herrera AGS, Demner-Fushman D, Antani S, Bedrick S, Müller H, Evaluating performance of biomedical image retrieval systems–an overview of the medical image retrieval task at ImageCLEF 2004-2013, Comput Med Imaging Graph. 2015 Jan;39:55-61. ScienceDirect top 25 list of most downloaded articles, ranked 9th on the top 25 for Computerized Medical Imaging and Graphics - January to March 2015
31. Bolón-Canedo V, Ataer-Cansizoglu E, Erdogmus D, **Kalpathy-Cramer J,** Fontenla-Romero O, Alonso-Betanzos A, Chiang MF, Dealing with inter-expert variability in retinopathy of prematurity: A machine learning approach. Comput Methods Programs Biomed. 2015 Oct;122(1):1-15. PMID: 26120072; PMCID: PMC4549198.
32. Prah MA, Stufflebeam SM, Paulson ES, **Kalpathy-Cramer J**, Gerstner ER, Batchelor TT, Barboriak DP, Rosen BR, Schmainda KM., Repeatability of Standardized and Normalized Relative CBV in Patients with Newly Diagnosed Glioblastoma., AJNR Am J Neuroradiol. 2015 Sep;36(9):1654-61. PMID: 26066626; PMCID: PMC4567906.
33. Jafari-Khouzani K, Emblem KE, **Kalpathy-Cramer J,** Bjørnerud A, Vangel MG, Gerstner ER, Schmainda KM, Paynabar K, Wu O, Wen PY, Batchelor T, Rosen B, Stufflebeam SM., Repeatability of Cerebral Perfusion Using Dynamic Susceptibility Contrast MRI in Glioblastoma Patients., Transl Oncol. 2015 Jun;8(3):137-46. PMID: 26055170
34. Ellingson BM, Bendszus M, Boxerman J, Barboriak D, Erickson BJ, Smits M, Nelson SJ, Gerstner E, Alexander B, Goldmacher G, Wick W, Vogelbaum M, Weller M, Galanis E, **Kalpathy-Cramer J,** Shankar L, Jacobs P, Pope WB, Yang D, Chung C, Knopp MV, Cha S, van den Bent MJ, Chang S, Al Yung WK, Cloughesy TF, Wen PY, Gilbert MR; Jumpstarting Brain Tumor Drug Development Coalition Imaging Standardization Steering Committee, Consensus recommendations for a standardized Brain Tumor Imaging Protocol in clinical trials., Neuro Oncol. 2015 Sep;17(9):1188-98. Review., PMID: 2625056
35. Prust MJ, Jafari-Khouzani K, **Kalpathy-Cramer J,** Polaskova P, Batchelor TT, Gerstner ER, Dietrich J., Standard chemoradiation for glioblastoma results in progressive brain volume loss. Neurology. 2015 Aug 25;85(8):683-91. PMID: 26208964
36. Shoultz-Henley S, Garden AS, Mohamed AS, Sheu T, Kroll MH, Rosenthal DI, Brandon Gunn G, Hayes AJ, French C, Eichelberger H, **Kalpathy-Cramer J,** Smith BD, Phan J, Ayoub Z, Lai SY, Pham B, Kies M, Gold KA, Sturgis E, Fuller CD. Prognostic value of pre-therapy platelet elevation in oropharyngeal cancer patients treated with chemoradiation. Int J Cancer. 2016 Mar 1;138(5):1290-7. PMID: 26414107; PMCID: PMC4779600.
37. Ding Y, Hazle JD, Mohamed ASR,Frank SJ, Hobbs BP, Colen RR, Gunn BG, Wang J, **Kalpathy-Cramer J,** Garden AJ, Lai SY, Rosenthal DI, Fuller CD, Intravoxel Incoherent Motion Imaging Kinetics during Chemoradiotherapy for Human Papillomavirus-Associated Squamous Cell Carcinoma of the Oropharynx: Preliminary Results from a Prospective Pilot Study" NMR Biomed. 2015 Dec;28(12):1645-54 PMID: 26451969
38. Menze BH, Jakab A, Bauer S, **Kalpathy-Cramer J**, Farahani K, Kirby J, Burren Y, Porz N, Slotboom J, Wiest R, Lanczi L, Gerstner E, Weber MA, Arbel T, Avants BB, Ayache N, Buendia P, Collins DL, Cordier N, Corso JJ, Criminisi A, Das T, Delingette H, Demiralp Ç, Durst CR, Dojat M, Doyle S, Festa J, Forbes F, Geremia E, Glocker B, Golland P, Guo X, Hamamci A, Iftekharuddin KM, Jena R, John NM, Konukoglu E, Lashkari D, Mariz JA, Meier R, Pereira S, Precup D, Price SJ, Raviv TR, Reza SM, Ryan M, Sarikaya D, Schwartz L, Shin HC, Shotton J, Silva CA, Sousa N, Subbanna NK, Szekely G, Taylor TJ, Thomas OM, Tustison NJ, Unal G, Vasseur F, Wintermark M, Ye DH, Zhao L, Zhao B, Zikic D, Prastawa M, Reyes M, Van Leemput K, The Multimodal Brain Tumor Image Segmentation Benchmark (BRATS)," in Medical Imaging, IEEE Transactions on , Oct. 2015;34(10):1993-2024. PMID: 25494501; PMCID: PMC4833122.
39. Ataer-Cansizoglu E, Bolon-Canedo V, Campbell JP, Bozkurt A, Erdogmus D, **Kalpathy-Cramer J,** Patel S, Jonas K, Chan RVP, Ostmo S, Chiang MF, on behalf of the i-ROP research consortium, Computer-based Image Analysis for Plus Disease Diagnosis in Retinopathy of Prematurity: Performance of the "i-ROP" system and Image Features Associated with Expert Diagnosis, Translational Vision Science & Technology, Transl Vis Sci Technol. 2015 Nov 30;4(6):5. eCollection 2015 Nov. PMID: 26644965
40. Yankeelov TW, Mankoff DA, Schwartz LH, Lieberman FS, Buatti JM, Mountz JM, Erickson BJ, Fennessy FMM, Huang W, **Kalpathy-Cramer J**, Wahl RL, Linden HM, Kinahan P, Zhao B, Hylton NM, Gillies RJ, Clarke L, Nordstrom R, Rubin DL, Quantitative Imaging in Cancer Clinical Trials, Clinical Cancer Research, Clin Cancer Res. 2016 Jan 15;22(2):284-90, PMID: 26773162
41. Messer JA, Mohamed AS, Hutcheson KA, Ding Y, Lewin JS, Wang J, Lai SY, Frank SJ, Garden AS, Sandulache V, Eichelberger H, French CC, Colen RR, Phan J, **Kalpathy-Cramer J**, Hazle JD, Rosenthal DI, Gunn GB, Fuller CD., Magnetic resonance imaging of swallowing-related structures in nasopharyngeal carcinoma patients receiving IMRT: Longitudinal dose-response characterization of quantitative signal kinetics., Radiother Oncol. 2016 Feb;118(2):315-22. Epub 2016 Jan 28. PMID: 26830697
42. Dale T, Hutcheson K, Mohamed AS, Lewin JS, Gunn GB, Rao AU, **Kalpathy-Cramer J,** Frank SJ, Garden AS, Messer JA, Warren B, Lai SY, Beadle BM, Morrison WH, Phan J, Skinner H, Gross N, Ferrarotto R, Weber RS, Rosenthal DI, Fuller CD., Beyond mean pharyngeal constrictor dose for beam path toxicity in non-target swallowing muscles: Dose-volume correlates of chronic radiation-associated dysphagia (RAD) after oropharyngeal intensity modulated radiotherapy. Radiother Oncol. 2016 Feb;118(2):304-14, Epub 2016 Feb 17. PMID: 26897515
43. Holliday E, Fuller CD, **Kalpathy-Cramer J**, Gomez D, Rimner A, Li Y, Senan S, Wilson LD, Choi J, Komaki R, Thomas CR Jr., Quantitative assessment of target delineation variability for thymic cancers: Agreement evaluation of a prospective segmentation challenge. J Radiat Oncol. 2016 Mar;5(1):55-61. PMID: 27570583
44. Campbell JP, Ataer-Cansizoglu E, Bolon-Canedo V, Bozkurt A, Erdogmus D, **Kalpathy-Cramer J,** Patel SN, Reynolds JD, Horowitz J, Hutcheson K, Shapiro M, Repka MX, Ferrone P, Drenser K, Martinez-Castellanos MA, Ostmo S, Jonas K, Chan RV, Chiang MF; Expert Diagnosis of Plus Disease in Retinopathy of Prematurity From Computer-Based Image Analysis. Imaging and Informatics in ROP (i-ROP) Research Consortium., JAMA Ophthalmol. 2016 Jun 1;134(6):651-7. PMID: 27077667
45. Huang W, Chen Y, Fedorov A, Li X, Jajamovich GH, Malyarenko DI, Aryal MP, LaViolette PS, Oborski MJ, O'Sullivan F, Abramson RG, Jafari-Khouzani K, Afzal A, Tudorica A, Moloney B, Gupta SN, Besa C, **Kalpathy-Cramer J**, Mountz JM, Laymon CM, Muzi M, Schmainda K, Cao Y, Chenevert TL, Taouli B, Yankeelov TE, Fennessy F, Li X, The Impact of Arterial Input Function Determination Variations on Prostate Dynamic Contrast-Enhanced Magnetic Resonance Imaging Pharmacokinetic Modeling: A Multicenter Data Analysis Challenge, Tomography. 2016 Mar;2(1):56-66, PMID: 27200418
46. Sandulache VC, Hobbs BP, Mohamed ASR, Frank SJ, Song J, Ding Y, Ger R, Court LE, **Kalpathy-Cramer J,** Hazle JD, Wang J, Awan MJ, Rosenthal DI, Garden AD, Gunn GB, Colen RR, Elshafeey N, Elbanan M, Hutcheson KA, Lewin JS, Chambers MS, Hofstede TM, Weber RS, Lai SY, Fuller CD, Dynamic contrast-enhanced MRI detects acute radiotherapy-induced alterations in mandibular microvasculature: prospective assessment of imaging biomarkers of normal tissue injury, Sci Rep. 2016 Aug 8;6:29864. PMID: 27499209
47. **Kalpathy-Cramer J,** Zhao B, Goldgof D, Gu Y, Wang X, Yang H, Tan Y, Gillies R, Napel S., A Comparison of Lung Nodule Segmentation Algorithms: Methods and Results from a Multi-institutional Study. J Digit Imaging. 2016 Aug;29(4):476-87, PMID: 26847203
48. **Kalpathy-Cramer J\*,** Campbell JP\*, Erdogmus D, Tian P, Kedarisetti D, Moleta C, Reynolds JD, Hutcheson K, Shapiro MJ, Repka MX, Ferrone P, Drenser K, Horowitz J, Sonmez K, Swan R, Ostmo S, Jonas KE, Chan RV, Chiang MF; Imaging and Informatics in Retinopathy of Prematurity Research Consortium, Plus Disease in Retinopathy of Prematurity: Improving Diagnosis by Ranking Disease Severity and Using Quantitative Image Analysis. Ophthalmology. 2016 Nov;123(11):2345-2351. PMID: 27566853; PMCID: PMC5077696.
49. Campbell JP\*, **Kalpathy-Cramer J\***, Erdogmus D, Tian P, Kedarisetti D, Moleta C, Reynolds JD, Hutcheson K, Shapiro MJ, Repka MX, Ferrone P, Drenser K, Horowitz J, Sonmez K, Swan R, Ostmo S, Jonas KE, Chan RV, Chiang MF; Imaging and Informatics in Retinopathy of Prematurity Research Consortium. Plus Disease in Retinopathy of Prematurity: A Continuous Spectrum of Vascular Abnormality as a Basis of Diagnostic Variability., Ophthalmology. 2016 Nov;123(11):2338-2344. PMID: 27591053; PMCID: PMC5077639.
50. Boujelben A, Watson M, McDougall S, Yen Y, Gerstner ER, Catana C, Deisboeck T, Batchelor TT, Boas D, Rosen B, **Kalpathy-Cramer J**, Chaplain MAJ, Multimodality imaging and mathematical modelling of drug delivery to glioblastomas Interface Focus. 2016 Oct 6;6(5):20160039. PMID: 27708763.
51. Hansen MB, Tietze A, **Kalpathy-Cramer J,** Gerstner ER, Batchelor TT, Østergaard L, Mouridsen K., Reliable estimation of microvascular flow patterns in patients with disrupted blood-brain barrier using dynamic susceptibility contrast MRI, J Magn Reson Imaging. 2017 Aug;46(2):537-549. PMID: 27902858.
52. Moleta C, Campbell JP, **Kalpathy-Cramer J,** Chan RP, Ostmo S, Jonas K, Chiang MF; Imaging & Informatics in ROP Research Consortium, Plus Disease in Retinopathy of Prematurity: Diagnostic Trends in 2016 vs. 2007. Am J Ophthalmol. 2017 Apr;176:70-76. PMID: 28087400; PMCID: PMC5376516.
53. **Kalpathy-Cramer J,** Chandra V, Da X, Ou Y, Emblem KE, Muzikansky A, Cai X, Douw L, Evans JG, Dietrich J, Chi AS, Wen PY, Stufflebeam S, Rosen B, Duda DG, Jain RK, Batchelor TT, Gerstner ER., Phase II study of tivozanib, an oral VEGFR inhibitor, in patients with recurrent glioblastoma, J Neurooncol. 2017 Feb;131(3):603-610. Nov 16. PMID: 27853960; PMCID: PMC7672995.
54. Le M, Delingette H, **Kalpathy-Cramer J**, Gerstner E, Batchelor T, Unkelbach J, Ayache N., MRI Based Bayesian Personalization of a Tumor Growth Model., IEEE Trans Med Imaging. 2016 Oct;35(10):2329-2339. Apr 29. PMID: 27164582.
55. Le M, Delingette H, **Kalpathy-Cramer J,** Gerstner ER, Batchelor T, Unkelbach J, Ayache N., Personalized Radiotherapy Planning Based on a Computational Tumor Growth Model. IEEE Trans Med Imaging. 2017 Mar;36(3):815-825. Nov 8. PMID: 28113925.
56. Farahani K, **Kalpathy-Cramer J**, Chenevert TL, Rubin DL, Sunderland JJ, Nordstrom RJ, Buatti J, Hylton N, Computational challenges and Collaborative projects in the NCI Quantitative Imaging Network, Tomography, Tomography. 2016 Dec;2(4):242-249. PMID: 28798963
57. **Kalpathy-Cramer J,** Mamomov A, Zhao B, Lu L, Cherezov D, Napel S, Echegaray S, Rubin D, McNitt-Gray M, Lo P, Sieren JC, Uthoff J, Dilger SK, Driscoll B, Yeung I, Hadjiiski L, Cha K, Balagurunathan Y, Gillies R, Goldgof D., Radiomics of Lung Nodules: A Multi-Institutional Study of Robustness and Agreement of Quantitative Imaging Features., Tomography. 2016 Dec;2(4):430-437. PMID: 28149958
58. Elhalawani H, Mohamed ASR, White AL, Zafereo J, Wong AJ, Berends JE, AboHashem S, Williams B, Aymard JN, Kanwar A, Perni S, Rock CD, Cooksey L, Campbell S, Ding Y, Lai SY, Marai EG, Vock D, Canahuate GM, Freymann J, Farahani K, **Kalpathy-Cramer J**, Fuller CD, on behalf of MICCAI/MDACC H&N Quantitative Imaging Working Group, Matched computed tomography segmentation and demographic data for oropharyngeal cancer radiomics challenges, Nature Sci Data. 2017 Jul 4;4:170077. PMID: 28675381
59. Bane O, Hectors S, Wagner M, Arlinghaus L, Aryal M, Cao Y, Chenevert T, Fennessy F, Huang W, Hylton N, **Kalpathy-Cramer J,** Keenan K, Maylarenko D, Mulkern R, Newitt D, Russek S, Stupic K, Tudorica A, Wilmes L, Yankeelov T, Yen Y, Boss M, Taouli B, Accuracy, repeatability and interplatform reproducibility of T1 quantification methods used for DCE-MRI: results from a multicenter phantom study., Magn Reson Med. 2018 May;79(5):2564-2575. PMID: 28913930; PMCID: PMC5821553.
60. Ger R, Mohamed ASR, Awan M, Ding Y, Li K, Fave X, Beers A, Driscoll B, Elhalawani H, Hormuth D, van Houdt P, He R, Zhou S, Mathieu K, Li H, Coolens C, Chung C, Bankson J, Huang W, Wang J, Sandulache B, Lai S, Howell R, Stafford J, Yankeelov T, van der Heide U, Frank S, Barboriak D, Hazle J, Court L, **Kalpathy-Cramer J,** Fuller CD, A Multi-Institutional Comparison of Dynamic Contrast-Enhanced Magnetic Resonance Imaging Parameter Calculations, Sci Rep. 2017 Sep 11;7(1):11185. PMID: 28894197
61. Chang K, Balachandar N, Lam C, Yi D, Brown J, Beers A, Rosen B, Rubin, DL, **Kalpathy-Cramer, J**., 2018. Distributed deep learning networks among institutions for medical imaging. Journal of the American Medical Informatics Association, 25(8), pp.945-954. DOI: 10.1093/jamia/ocy017. PMID: 29617797

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1. Newitt DC, Malyarenko D, Chenevert TL, Quarles CC, Bell L, Fedorov A, Fennessy F, Jacobs MA, Solaiyappan M, Hectors S, Taouli B, Muzi M, Kinahan PE, Schmainda KM, Prah MA, Taber EN, Kroenke C, Huang W, Arlinghaus LR, Yankeelov TE, Cao Y, Aryal M, Yen YF, **Kalpathy-Cramer J**, Shukla-Dave A, Fung M, Liang J, Boss M, Hylton N., Multisite concordance of apparent diffusion coefficient measurements across the NCI Quantitative Imaging Network., J Med Imaging (Bellingham). 2018 Jan;5(1):011003. PMID: 29021993; PMCID: PMC5633866.
2. Shazeeb MS, **Kalpathy-Cramer J**, Issa B., MRI Simulation Study Investigating Effects of Vessel Topology, Diffusion, and Susceptibility on Transverse Relaxation Rates Using a Cylinder Fork Model., Sci Rep. 2017 Nov 24;7(1):16223. PMID: 29176647
3. Chang K, Bai HX, Zhou H, Su C, Bi WL, Agbodza E, Kavouridis VK, Senders JT, Boaro A, Beers A, Zhang B, Capellini A, Liao W, Shen Q, Li X, Xiao B, Cryan J, Ramkissoon S, Ramkissoon L, Ligon K, Wen PY, Bindra RS, Woo J, Arnaout O, Gerstner ER, Zhang PJ, Rosen BR, Yang L, Huang RY, **Kalpathy-Cramer J.**, Residual Convolutional Neural Network for the Determination of IDH Status in Low- and High-Grade Gliomas from MR Imaging. Clin Cancer Res. 2018 Mar 1;24(5):1073-1081. PMID: 29167275

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1. Prust ML, Jafari-Khouzani K, **Kalpathy-Cramer J**, Polaskova P, Batchelor TT, Gerstner ER, Dietrich J., Standard chemoradiation in combination with VEGF targeted therapy for glioblastoma results in progressive gray and white matter volume loss., Neuro Oncol. 2018 Jan 22;20(2):289-291. PMID: 29315410
2. Lee A, Taylor P, **Kalpathy-Cramer** J, Tufail A., Machine Learning Has Arrived!, Ophthalmology. 2017 Dec;124(12):1726-1728.PMID: 29157423
3. Ou Y, Zöllei L, Da X, Retzepi K, Murphy SN, Gerstner ER, Rosen BR, Grant PE, **Kalpathy-Cramer J,** Gollub RL., Field of View Normalization in Multi-Site Brain MRI., Neuroinformatics. 2018 Oct;16(3-4):431-444. PMID: 29353341
4. Farrar CT, Gale EM, Kennan R, Ramsay I, Masia R, Arora G, Looby K, Wei L, **Kalpathy-Cramer J**, Bunzel MM, Zhang C, Zhu Y, Akiyama TE, Klimas M, Pinto S, Diyabalanage H, Tanabe KK, Humblet V, Fuchs BC, Caravan P., CM-101: Type I Collagen-targeted MR Imaging Probe for Detection of Liver Fibrosis. Radiology. 2017 Nov 20:170595. PMID: 29156148
5. Lauer A, Da X, Hansen MB, Boulouis G, Ou Y, Cai X, Liberato Celso Pedrotti A, **Kalpathy-Cramer J,** Caruso P, Hayden DL, Rost N, Mouridsen K, Eichler FS, Rosen B, Musolino PL., ABCD1 dysfunction alters white matter microvascular perfusion., Brain. 2017 Dec 1;140(12):3139-3152., PMID: 29136088
6. Balagurunathan Y, Beers A, **Kalpathy-Cramer J,** McNitt-Gray M, Hadjiiski L, Zhao B, Zhu J, Yang H, Yip SSF, Aerts HJWL, Napel S, Cherezov D, Cha K, Chan HP, Flores C, Garcia A, Gillies R, Goldgof D., Semi-automated pulmonary nodule interval segmentation using the NLST data., Med Phys. 2018 Mar;45(3):1093-1107. PMID: 29363773
7. Brown JM, Campbell JP, Beers A, Chang K, Ostmo S, Chan RVP, Dy J, Erdogmus D, Ioannidis S, **Kalpathy-Cramer J\*,** Chiang MF\*; Imaging and Informatics in Retinopathy of Prematurity (i-ROP) Research Consortium., Automated Diagnosis of Plus Disease in Retinopathy of Prematurity Using Deep Convolutional Neural Networks. JAMA Ophthalmol. 2018 Jul 1;136(7):803-810. PMID: 29801159; PMCID: PMC6136045.

This work has received “Breakthrough” Status from the FDA and is being commercialized, Featured in NVIDIA, MGH Research News

1. Schmainda KM, Prah MA, Rand SD, Liu Y, Logan B, Muzi M, Rane SD, Da X, Yen YF, **Kalpathy-Cramer J**, Chenevert TL, Hoff B, Ross B, Cao Y, Aryal MP, Erickson B, Korfiatis P, Dondlinger T, Bell L, Hu L, Kinahan PE, Quarles CC., Multisite Concordance of DSC-MRI Analysis for Brain Tumors: Results of a National Cancer Institute Quantitative Imaging Network Collaborative Project. AJNR Am J Neuroradiol. 2018 Jun;39(6):1008-1016. PMID: 29794239
2. Kim SJ, Campbell JP, **Kalpathy-Cramer J**, Ostmo S, Jonas KE, Choi D, Chan RVP, Chiang MF; Imaging and Informatics in Retinopathy of Prematurity (i-ROP) Research Consortium., Accuracy and Reliability of Eye-Based vs Quadrant-Based Diagnosis of Plus Disease in Retinopathy of Prematurity. JAMA Ophthalmol. 2018 Jun 1;136(6):648-655. PMID: 29710185
3. Ng SP, Dyer BA, **Kalpathy-Cramer J**, Mohamed ASR, Awan MJ, Gunn GB, Phan J, Zafereo M, Debnam JM, Lewis CM, Colen RR, Kupferman ME, Guha-Thakurta N, Canahuate G, Marai GE, Vock D, Hamilton B, Holland J, Cardenas CE, Lai S, Rosenthal D, Fuller CD., A prospective in silico analysis of interdisciplinary and interobserver spatial variability in post-operative target delineation of high-risk oral cavity cancers: Does physician specialty matter? Clin Transl Radiat Oncol. 2018 Aug 2;12:40-46., PMID: 30148217
4. Robins M, **Kalpathy-Cramer J**, Obuchowski NA, Buckler A, Athelogou M, Jarecha R, Petrick N, Pezeshk A, Sahiner B, Samei E., Evaluation of Simulated Lesions as Surrogates to Clinical Lesions for Thoracic CT Volumetry: The Results of an International Challenge., Acad Radiol. 2019 Jul;26(7):e161-e173. Sep 12. PMID: 30219290; PMCID: PMC6414290.
5. Winzeck S, Hakim A, McKinley R, Pinto JAADSR, Alves V, Silva C, Pisov M, Krivov E, Belyaev M, Monteiro M, Oliveira A, Choi Y, Paik MC, Kwon Y, Lee H, Kim BJ, Won JH, Islam M, Ren H, Robben D, Suetens P, Gong E, Niu Y, Xu J, Pauly JM, Lucas C, Heinrich MP, Rivera LC, Castillo LS, Daza LA, Beers AL, Arbelaezs P, Maier O, Chang K, Brown JM, **Kalpathy-Cramer J**, Zaharchuk G, Wiest R, Reyes M., ISLES 2016 and 2017-Benchmarking Ischemic Stroke Lesion Outcome Prediction Based on Multispectral MRI., Front Neurol. 2018 Sep 13;9:679., PMID: 30271370
6. Ina Ly K, Vakulenko-Lagun B, Emblem KE, Ou Y, Da X, Betensky RA, **Kalpathy-Cramer J,** Duda DG, Jain RK, Chi AS, Plotkin SR, Batchelor TT, Sorensen G, Rosen BR, Gerstner ER., Probing tumor microenvironment in patients with newly diagnosed glioblastoma during chemoradiation and adjuvant temozolomide with functional MRI., Sci Rep. 2018 Nov 20;8(1):17062. PMID: 30459364
7. Halabi SS, Prevedello LM, **Kalpathy-Cramer J,** Mamonov AB, Bilbily A, Cicero M, Pan I, Pereira LA, Sousa RT, Abdala N, Kitamura FC, Thodberg HH, Chen L, Shih G, Andriole K, Kohli MD, Erickson BJ, Flanders AE., The RSNA Pediatric Bone Age Machine Learning Challenge., Radiology. 2019 Feb;290(2):498-503. Nov 27. PMID: 30480490; PMCID: PMC6358027.
8. Redd TK, Campbell JP, Brown JM, Kim SJ, Ostmo S, Chan RVP, Dy J, Erdogmus D, Ioannidis S, **Kalpathy-Cramer J,** Chiang MF; Imaging and Informatics in Retinopathy of Prematurity (i-ROP) Research Consortium., Evaluation of a deep learning image assessment system for detecting severe retinopathy of prematurity.Br J Ophthalmol. 2018 Nov 23:bjophthalmol-2018-313156. PMID: 30470715.
9. Elhalawani H, Elgohari B, Lin TA, Mohamed ASR, Fitzgerald TJ, Laurie F, Ulin K, **Kalpathy-Cramer J,** Guerrero T, Holliday EB, Russo G, Patel A, Jones W, Walker GV, Awan M, Choi M, Dagan R, Mahmoud O, Shapiro A, Kong FS, Gomez D, Zeng J, Decker R, Spoelstra FOB, Gaspar LE, Kachnic LA, Thomas CR Jr, Okunieff P, Fuller CD., An in-silico quality assurance study of contouring target volumes in thoracic tumors within a cooperative group setting., Clin Transl Radiat Oncol. 2019 Jan 6;15:83-92. PMID: 30775563
10. Coyner AS, Swan R, Brown JM, **Kalpathy-Cramer J,** Kim SJ, Campbell JP, Jonas KE, Ostmo S, Chan RVP, Chiang MF., Deep Learning for Image Quality Assessment of Fundus Images in Retinopathy of Prematurity., AMIA Annu Symp Proc. 2018 Dec 5;2018:1224-1232. eCollection 2018., PMID: 30815164 18.
11. Armato SG 3rd, Huisman H, Drukker K, Hadjiiski L, Kirby JS, Petrick N, Redmond G, Giger ML, Cha K, Mamonov A, **Kalpathy-Cramer J,** Farahani K., PROSTATEx Challenges for computerized classification of prostate lesions from multiparametric magnetic resonance images., J Med Imaging (Bellingham). 2018 Oct;5(4):044501. PMID: 30840739
12. Huang W, Chen Y, Fedorov A, Li X, Jajamovich GH, Malyarenko DI, Aryal MP, LaViolette PS, Oborski MJ, O'Sullivan F, Abramson RG, Jafari-Khouzani K, Afzal A, Tudorica A, Moloney B, Gupta SN, Besa C, **Kalpathy-Cramer J,** Mountz JM, Laymon CM, Muzi M, Kinahan PE, Schmainda K, Cao Y, Chenevert TL, Taouli B, Yankeelov TE, Fennessy F, Li X, The Impact of Arterial Input Function Determination Variations on Prostate Dynamic Contrast-Enhanced Magnetic Resonance Imaging Pharmacokinetic Modeling: A Multicenter Data Analysis Challenge, Part II., Tomography. 2019 Mar;5(1):99-109., PMID: 30854447
13. Bell LC, Semmineh N, An H, Eldeniz C, Wahl R, Schmainda KM, Prah MA, Erickson BJ, Korfiatis P, Wu C, Sorace AG, Yankeelov TE, Rutledge N, Chenevert TL, Malyarenko D, Liu Y, Brenner A, Hu LS, Zhou Y, Boxerman JL, Yen YF, **Kalpathy-Cramer J,** Beers AL, Muzi M, Madhuranthakam AJ, Pinho M, Johnson B, Quarles CC., Evaluating Multisite rCBV Consistency from DSC-MRI Imaging Protocols and Postprocessing Software Across the NCI Quantitative Imaging Network Sites Using a Digital Reference Object (DRO)., Tomography. 2019 Mar;5(1):110-117., PMID: 30854448
14. Langlotz CP, Allen B, Erickson BJ, **Kalpathy-Cramer J,** Bigelow K, Cook TS, Flanders AE, Lungren MP, Mendelson DS, Rudie JD, Wang G, Kandarpa K., A Roadmap for Foundational Research on Artificial Intelligence in Medical Imaging: From the 2018 NIH/RSNA/ACR/The Academy Workshop., Radiology. 2019 Jun;291(3):781-791. PMID: 30990384
15. Vu QD, Graham S, Kurc T, To MNN, Shaban M, Qaiser T, Koohbanani NA, Khurram SA, **Kalpathy-Cramer J,** Zhao T, Gupta R, Kwak JT, Rajpoot N, Saltz J, Farahani K., Methods for Segmentation and Classification of Digital Microscopy Tissue Images., Front Bioeng Biotechnol. 2019 Apr 2;7:53. PMID: 31001524
16. Prevedello LM,  Halabi SS,  Shih G,  Wu CC,  Kohli MD,  Chokshi FH,  Erickson BJ,  **Kalpathy-Cramer J**,  Andriole KP, Flanders AE, Challenges Related to Artificial Intelligence Research in Medical Imaging and the Importance of Image Analysis Competitions, Radiol Artif Intell. 2019 Jan;1(1):e180031. PMID: 33937783
17. Coyner AS, Swan R, Campbell JP, Ostmo S, Brown JM, **Kalpathy-Cramer J,** Kim SJ, Jonas KE, Chan RVP, Chiang MF; Imaging and Informatics in Retinopathy of Prematurity Research Consortium., Automated Fundus Image Quality Assessment in Retinopathy of Prematurity Using Deep Convolutional Neural Networks., Ophthalmol Retina. 2019 May;3(5):444-450. PMID: 31044738
18. Choudhery S, Chou SS, Chang K, **Kalpathy-Cramer J,** Lehman CD. Kinetic Analysis of Lesions Identified on a Rapid Abridged Multiphase (RAMP) Breast MRI Protocol., Acad Radiol. May;27(5):672-681. PMID: 31147233; PMCID: PMC6879810.
19. Chang K, Beers AL, Bai HX, Brown JM, Ly KI, Li X, Senders JT, Kavouridis VK, Boaro A, Su C, Bi WL, Rapalino O, Liao W, Shen Q, Zhou H, Xiao B, Wang Y, Zhang PJ, Pinho MC, Wen PY, Batchelor TT, Boxerman JL, Arnaout O, Rosen BR, Gerstner ER, Yang L, Huang RY, **Kalpathy-Cramer J.,** Automatic assessment of glioma burden: A deep learning algorithm for fully automated volumetric and bi-dimensional measurement., Neuro Oncol. 2019 Neuro Oncol. 2019 Nov 4;21(11):1412-1422. PMID: 31190077; PMCID: PMC6827825.

Highlighted in Neuro-Oncology DOI: 10.1093/neuonc/noz162

Featured in MGH Radiology, Martinos Center News

1. Ly KI, Vakulenko-Lagun B, Emblem KE, Ou Y, Da X, Betensky RA, **Kalpathy-Cramer J,** Duda DG, Jain RK, Chi AS, Plotkin SR, Batchelor TT, Sorensen G, Rosen BR, Gerstner ER., Probing tumor microenvironment in patients with newly diagnosed glioblastoma during chemoradiation and adjuvant temozolomide with functional MRI., Sci Rep. 2019 Jun 14;9(1):8721, PMID: 31197238
2. Yıldız İ, Tian P, Dy J, Erdoğmuş D, Brown J, **Kalpathy-Cramer J,** Ostmo S, Peter Campbell J, Chiang MF, Ioannidis S., Classification and comparison via neural networks., Neural Netw. 2019 Oct;118:65-80, PMID: 31254769
3. Pan I, Thodberg HT, Halabi SS, **Kalpathy-Cramer J,** Larson DB, Improving Automated Pediatric Bone Age Estimation Using Ensembles of Models from the 2017 RSNA Machine Learning Challenge, Radiol Artif Intell. 2019 Nov 20;1(6):e190053. PMID: 32090207.
4. Gupta K, Campbell JP, Taylor S, Brown JM, Ostmo S, Chan RVP, Dy J, Erdogmus D, Ioannidis S, **Kalpathy-Cramer J,** Kim SJ, Chiang MF; Imaging and Informatics in Retinopathy of Prematurity Consortium., A Quantitative Severity Scale for Retinopathy of Prematurity Using Deep Learning to Monitor Disease Regression After Treatment., JAMA Ophthalmol. 2019 Jul 3;137(9):1029–36. PMID: 31268499; PMCID: PMC6613298
5. Taylor S, Brown JM, Gupta K, Campbell JP, Ostmo S, Chan RVP, Dy J, Erdogmus D, Ioannidis S, Kim SJ, **Kalpathy-Cramer J\*,** Chiang MF\*; Imaging and Informatics in Retinopathy of Prematurity Consortium., Monitoring Disease Progression With a Quantitative Severity Scale for Retinopathy of Prematurity Using Deep Learning., JAMA Ophthalmol. 2019 Jul 3;137(9):1029–36. PMID: 31268499; PMCID: PMC6613298
6. Allen B, Agarwal S, **Kalpathy-Cramer J,** Dreyer K., Democratizing AI. J Am Coll Radiol. 2019 Jul;16(7):961-963. PMID: 31272590
7. Silva MA, Patel J, Kavouridis V, Gallerani T, Beers A, Chang K, Hoebel KV, Brown J, See AP, Gormley WB, Aziz-Sultan MA, **Kalpathy-Cramer J,** Arnaout O, Patel NJ., Machine Learning Models can Detect Aneurysm Rupture and Identify Clinical Features Associated with Rupture., World Neurosurg. 2019 Nov;131:e46-e51, PMID: 31295616.
8. Christopherson KM, Ghosh A, Mohamed ASR, Kamal M, Gunn GB, Dale T, Kalpathy-Cramer J, Messer J, Garden AS, Elhalawani H, Frank SJ, Lewin J, Morrison WH, Phan J, Gross N, Ferrarotto R, Weber RS, Rosenthal DI, Lai SY, Hutcheson K, Marai GEL, Canahuate G, Vock DM, Fuller CD, (MD Anderson Head and Neck Cancer Symptom Working Group; Spatial-Non-spatial Multi-Dimensional Analysis of Radiotherapy Treatment/Toxicity Team (SMART3)), Chronic radiation-associated dysphagia in oropharyngeal cancer survivors: Towards age-adjusted dose constraints for deglutitive muscles., Clin Transl Radiat Oncol. 2019 Jun 15;18:16-22, PMID: 31341972
9. Gerstner E, Emblem KE, Chang K, Vakulenko-Lagun B, Yen YF, Beers AL, Dietrich J, Plotkin SR, Catana C, Hooker JM, Duda DG, Rosen B, **Kalpathy-Cramer J**, Jain RK, Batchelor T., Bevacizumab reduces permeability and concurrent temozolomide delivery in a subset of patients with recurrent glioblastoma., Clin Cancer Res. 2020 Jan 1;26(1):206-212. PMID: 31558474; PMCID: PMC7139851.
10. Balachandar N, Chang K, **Kalpathy-Cramer J**\*, Rubin DL\*. Accounting for data variability in multi-institutional distributed deep learning for medical imaging. J Am Med Inform Assoc. 2020 May 1;27(5):700-708. PMID: 32196092; PMCID: PMC7309257.
11. Kurc T, Bakas S, Ren X, Bagari A, Momeni A, Huang Y, Zhang L, Kumar A, Thibault M, Qi Q, Wang Q, Kori A, Gevaert O, Zhang Y, Shen D, Khened M, Ding X, Krishnamurthi G, **Kalpathy-Cramer J,** Davis J, Zhao T, Gupta R, Saltz J, Farahani K. Segmentation and Classification in Digital Pathology for Glioma Research: Challenges and Deep Learning Approaches. Front Neurosci. 2020 Feb 21;14:27. PMID: 32153349; PMCID: PMC7046596.
12. Bellsmith KN, Brown J, Kim SJ, Goldstein IH, Coyner A, Ostmo S, Gupta K, Chan RVP, **Kalpathy-Cramer J,** Chiang MF, Campbell JP. Aggressive Posterior Retinopathy of Prematurity: Clinical and Quantitative Imaging Features in a Large North American Cohort. Ophthalmology. 2020 Feb 7:S0161-6420(20)30129-9. PMID: 32197913.
13. Choi RY, Brown JM, **Kalpathy-Cramer J**, Chan RP, Ostmo S, Chiang MF, Campbell JP; Imaging and Informatics in Retinopathy of Prematurity (i-ROP) Consortium. Real world variability in plus disease identified using a deep learning-based retinopathy of prematurity severity scale. Ophthalmol Retina. 2020 May 4:S2468-6530(20)30185-8. PMID: 32380115.
14. Greenwald MF, Danford ID, Shahrawat M, Ostmo S, Brown J, **Kalpathy-Cramer J,** Bradshaw K, Schelonka R, Cohen HS, Chan RVP, Chiang MF, Campbell JP. Evaluation of artificial intelligence-based telemedicine screening for retinopathy of prematurity. J AAPOS. 2020 Jun;24(3):160-162. PMID: 32289490.
15. Morales MA, Izquierdo-Garcia D, Aganj I, **Kalpathy-Cramer J,** Rosen BR, Catana C. Implementation and Validation of a Three-dimensional Cardiac Motion Estimation Network. Radiol Artif Intell. 2019 Jul 17;1(4):e180080. PMID: 32076659; PMCID: PMC6677286.
16. Li MD, Chang K, Bearce B, Chang CY, Huang AJ, Campbell JP, Brown JM, Singh P, Hoebel KV, Erdoğmuş D, Ioannidis S, Palmer WE, Chiang MF, **Kalpathy-Cramer J.** Siamese neural networks for continuous disease severity evaluation and change detection in medical imaging. NPJ Digit Med. 2020 Mar 26;3:48. PMID: 32258430; PMCID: PMC7099081.

Featured in Martinos Center News

1. Fedorov A, Beichel R, **Kalpathy-Cramer J,** Clunie D, Onken M, Riesmeier J, Herz C, Bauer C, Beers A, Fillion-Robin JC, Lasso A, Pinter C, Pieper S, Nolden M, Maier-Hein K, Herrmann MD, Saltz J, Prior F, Fennessy F, Buatti J, Kikinis R. Quantitative Imaging Informatics for Cancer Research. JCO Clin Cancer Inform. 2020 May;4:444-453. PMID: 32392097; PMCID: PMC7265794.
2. Cardenas CE, Mohamed ASR, Yang J, Gooding M, Veeraraghavan H, **Kalpathy-Cramer J**, Ng SP, Ding Y, Wang J, Lai SY, Fuller CD, Sharp G. Head and neck cancer patient images for determining auto-segmentation accuracy in T2-weighted magnetic resonance imaging through expert manual segmentations. Med Phys. 2020 Jun;47(5):2317-2322. PMID: 32418343; PMCID: PMC7322982.
3. Boxerman JL, Quarles CC, Hu LS, Erickson BJ, Gerstner ER, Smits M, Kaufmann TJ, Barboriak DP, Huang RH, Wick W, Weller M, Galanis E, **Kalpathy-Cramer J,** Shankar L, Jacobs P, Chung C, van den Bent MJ, Chang S, Al Yung WK, Cloughesy TF, Wen PY, Gilbert MR, Rosen BR, Ellingson BM, Schmainda KM; Jumpstarting Brain Tumor Drug Development Coalition Imaging Standardization Steering Committee. Consensus recommendations for a dynamic susceptibility contrast MRI protocol for use in high-grade gliomas. Neuro Oncol. 2020 Sep 29;22(9):1262-1275. PMID: 32516388; PMCID: PMC7523451.
4. McNitt-Gray M, Napel S, Jaggi A, Mattonen SA, Hadjiiski L, Muzi M, Goldgof D, Balagurunathan Y, Pierce LA, Kinahan PE, Jones EF, Nguyen A, Virkud A, Chan HP, Emaminejad N, Wahi-Anwar M, Daly M, Abdalah M, Yang H, Lu L, Lv W, Rahmim A, Gastounioti A, Pati S, Bakas S, Kontos D, Zhao B, **Kalpathy-Cramer J,** Farahani K. Standardization in Quantitative Imaging: A Multicenter Comparison of Radiomic Features from Different Software Packages on Digital Reference Objects and Patient Data Sets. Tomography. 2020 Jun;6(2):118-128. PMID: 32548288; PMCID: PMC7289262.
5. Bell LC, Semmineh N, An H, Eldeniz C, Wahl R, Schmainda KM, Prah MA, Erickson BJ, Korfiatis P, Wu C, Sorace AG, Yankeelov TE, Rutledge N, Chenevert TL, Malyarenko D, Liu Y, Brenner A, Hu LS, Zhou Y, Boxerman JL, Yen YF, **Kalpathy-Cramer J,** Beers AL, Muzi M, Madhuranthakam AJ, Pinho M, Johnson B, Quarles CC. Evaluating the Use of rCBV as a Tumor Grade and Treatment Response Classifier Across NCI Quantitative Imaging Network Sites: Part II of the DSC-MRI Digital Reference Object (DRO) Challenge. Tomography. 2020 Jun;6(2):203-208. PMID: 32548297; PMCID: PMC7289259.
6. Beers A, Brown J, Chang K, Hoebel K, Patel J, Ly KI, Tolaney SM, Brastianos P, Rosen B, Gerstner ER, **Kalpathy-Cramer** J. DeepNeuro: an open-source deep learning toolbox for neuroimaging. Neuroinformatics. 2021 Jan;19(1):127-140. PMID: 32578020; PMCID: PMC7786286.
7. Chang K, Beers AL, Brink L, Patel JB, Singh P, Arun NT, Hoebel KV, Gaw N, Shah M, Pisano ED, Tilkin M, Coombs LP, Dreyer KJ, Allen B, Agarwal S, **Kalpathy-Cramer J.** Multi-Institutional Assessment and Crowdsourcing Evaluation of Deep Learning for Automated Classification of Breast Density. J Am Coll Radiol. 2020 Jun 24:S1546-1440(20)30539-1. PMID: 32592660.
8. Scruggs BA, Chan RVP, **Kalpathy-Cramer J,** Chiang MF, Campbell JP. Artificial Intelligence in Retinopathy of Prematurity Diagnosis. Transl Vis Sci Technol. 2020 Feb 10;9(2):5. PMID: 32704411; PMCID: PMC7343673.
9. Yildiz VM, Tian P, Yildiz I, Brown JM, **Kalpathy-Cramer J,** Dy J, Ioannidis S, Erdogmus D, Ostmo S, Kim SJ, Chan RVP, Campbell JP, Chiang MF; Imaging and Informatics in Retinopathy of Prematurity (i-ROP) Research Consortium. Plus Disease in Retinopathy of Prematurity: Convolutional Neural Network Performance Using a Combined Neural Network and Feature Extraction Approach. Transl Vis Sci Technol. 2020 Feb 14;9(2):10. PMID: 32704416; PMCID: PMC7346878.
10. Choi RY, Coyner AS, **Kalpathy-Cramer J,** Chiang MF, Campbell JP. Introduction to Machine Learning, Neural Networks, and Deep Learning. Transl Vis Sci Technol. 2020 Feb 27;9(2):14. PMID: 32704420; PMCID: PMC7347027.
11. Zhang JL, Conlin CC, Li X, Layec G, Chang K, **Kalpathy-Cramer** J, Lee VS. Exercise-induced calf muscle hyperemia: Rapid mapping of magnetic resonance imaging using deep learning approach. Physiol Rep. 2020 Aug;8(16):e14563. PMID: 32812401; PMCID: PMC7435025.
12. Torrado-Carvajal A, Toschi N, Albrecht DS, Chang K, Akeju O, Kim M, Edwards RR, Zhang Y, Hooker JM, Duggento A, **Kalpathy-Cramer** J, Napadow V, Loggia ML. Thalamic neuroinflammation as a reproducible and discriminating signature for chronic low back pain. Pain. 2021 Apr 1;162(4):1241-1249. PMID: 33065737; PMCID: PMC7969370.
13. Sun H, Jain A, Leone MJ, Alabsi HS, Brenner LN, Ye E, Ge W, Shao YP, Boutros CL, Wang R, Tesh RA, Magdamo C, Collens SI, Ganglberger W, Bassett IV, Meigs JB, **Kalpathy-Cramer J**, Li MD, Chu JT, Dougan ML, Stratton LW, Rosand J, Fischl B, Das S, Mukerji SS, Robbins GK, Westover MB. CoVA: An Acuity Score for Outpatient Screening that Predicts COVID-19 Prognosis. J Infect Dis. 2021 Jan 4;223(1):38-46. PMID: 33098643; PMCID: PMC7665643.
14. Campbell JP, Kim SJ, Brown JM, Ostmo S, Chan RVP, **Kalpathy-Cramer J\*,** Chiang MF\*; of the Imaging and Informatics in Retinopathy of Prematurity Consortium. Evaluation of a Deep Learning-Derived Quantitative Retinopathy of Prematurity Severity Scale. Ophthalmology.. 2021 Jul;128(7):1070-1076. PMID: 33121959; PMCID: PMC8076329.
15. Kirby J, Prior F, Petrick N, Hadjiski L, Farahani K, Drukker K, **Kalpathy-Cramer J,** Glide-Hurst C, El Naqa I. Introduction to Special Issue on Datasets hosted in The Cancer Imaging Archive (TCIA). Med Phys. 2020 Dec;47(12):6026-6028. PMID: 33202038.
16. Gerstner ER, Emblem KE, Yen Y, Dietrich J, Jordan JR, Catana C, Wenchin KL, Hooker JM, Duda DG, Rosen BR, **Kalpathy-Cramer J**, Jain RJ, Batchelor TT, Vascular Dysfunction Promotes Regional Hypoxia after Bevacizumab Therapy in Recurrent Glioblastoma Patients, Neurooncol Adv. 2020 Nov 17;2(1), PMID: 33392506; PMCID: PMC7764510.
17. Hoebel KV,  Patel JB,  Beers A,  Chang K,  Singh P,  Brown JM, Pinho MC, Batchelor TT,  Gerstner ER,  Rosen BR, **Kalpathy-Cramer J,** Radiomics Repeatability Pitfalls in a Scan-Rescan MRI Study of Glioblastoma, Radiol Artif Intell. 2020 Dec 16;3(1):e190199. PMID: 33842889; PMCID: PMC7845781.

Editorial in Radiology: Artificial Intelligence DOI: 10.1148/ryai.2020200227

1. Li, M.D., Arun, N.T., Gidwani, M., Chang, K., Deng, F., Little, B.P., Mendoza, D.P., Lang, M., Lee, S.I., O’Shea, A., Parakh, A., Singh, P, **Kalpathy-Cramer, J**, 2020. Automated Assessment and Tracking of COVID-19 Pulmonary Disease Severity on Chest Radiographs using Convolutional Siamese Neural Networks. Radiol Artif Intell. 2020 Jul 22;2(4):e200079. PMID: 33928256; PMCID: PMC7392327.

(Cover Article, #3 most viewed article Oct 2019-Sep 2020, #3 for Altimetric score Oct 2019-Sep 2020, top 10 most cited articles for the journal, Featured in NVIDIA News, MGH News, Martinos Center News)

1. Li MD, Lang M, Deng F, Chang K, Buch K, Rincon S, Mehan WA, Leslie-Mazwi TM, **Kalpathy-Cramer J.** Analysis of Stroke Detection during the COVID-19 Pandemic Using Natural Language Processing of Radiology Reports. AJNR Am J Neuroradiol. 2021 Mar;42(3):429-434. PMID: 33334851; PMCID: PMC7959438.
2. Tsai EB, Simpson S, Lungren M, Hershman M, Roshkovan L, Colak E, Erickson BJ, Shih G, Stein A, **Kalpathy-Cramer J**, Shen J, Hafez M, John S, Rajiah P, Pogatchnik BP, Mongan J, Altinmakas E, Ranschaert ER, Kitamura FC, Topff L, Moy L, Kanne JP, Wu CC. The RSNA International COVID-19 Open Annotated Radiology Database (RICORD). Radiology. 2021 Apr;299(1):E204-E213. PMID: 33399506; PMCID: PMC7993245.
3. Chung C, **Kalpathy-Cramer J**, Knopp MV, Jaffray DA. In the Era of Deep Learning, Why Reconstruct an Image at All? J Am Coll Radiol. 2021 Jan;18(1 Pt B):170-173. PMID: 33413895.
4. Daye D, Tabari A, Kim H, Chang K, Kamran SC, Hong TS, **Kalpathy-Cramer J**, Gee MS. Quantitative tumor heterogeneity MRI profiling improves machine learning-based prognostication in patients with metastatic colon cancer. Eur Radiol. 2021 Aug;31(8):5759-5767. PMID: 33454799.
5. Li MD, Little BP, Alkasab TK, Mendoza DP, Succi MD, Shepard JO, Lev MH, **Kalpathy-Cramer J.** Multi-Radiologist User Study for Artificial Intelligence-Guided Grading of COVID-19 Lung Disease Severity on Chest Radiographs. Acad Radiol. 2021 Apr;28(4):572-576. PMID: 33485773; PMCID: PMC7813473
6. Colak E, Kitamura FC, Hobbs SB, Wu CC, Lungren MP, Prevedello LM, **Kalpathy-Cramer J,** Ball RL, Shih G, Stein A, Halabi SS, Altinmakas E, Law M, Kumar P, Manzalawi KA, Nelson Rubio DC, Sechrist JW, Germaine P, Lopez EC, Amerio T, Gupta P, Jain M, Kay FU, Lin CT, Sen S, Revels JW, Brussaard CC, Mongan J; RSNA-STR Annotators and Dataset Curation Contributors. The RSNA Pulmonary Embolism CT Dataset. Radiol Artif Intell. 2021 Jan 20;3(2):e200254. PMID: 33937862; PMCID: PMC8043364.
7. Li MD, Deng F, Chang K, **Kalpathy-Cramer** **J,** Huang AJ. Automated Radiology-Arthroscopy Correlation of Knee Meniscal Tears Using Natural Language Processing Algorithms. Acad Radiol. 2021 Feb 11:S1076-6332(21)00026-X. Epub ahead of print. PMID: 33583713.
8. Lang M, Li MD, Jiang KZ, Yoon BC, Mendoza DP, Flores EJ, Rincon SP, Mehan WA Jr, Conklin J, Huang SY, Lang AL, Giao DM, Leslie-Mazwi TM, **Kalpathy-Cramer** J, Little BP, Buch K. Severity of Chest Imaging is Correlated with Risk of Acute Neuroimaging Findings among Patients with COVID-19. AJNR Am J Neuroradiol. 2021 May;42(5):831-837. PMID: 33541897.
9. Campbell JP, Singh P, Redd TK, Brown JM, Shah PK, Subramanian P, Rajan R, Valikodath N, Cole E, Ostmo S, Chan RVP, Venkatapathy N, Chiang MF, **Kalpathy-Cramer J**. Applications of Artificial Intelligence for Retinopathy of Prematurity Screening. Pediatrics. 2021 Mar;147(3):e2020016618.. PMID: 33637645; PMCID: PMC7924138.
10. Flanders AE, Prevedello LM, Shih G, Halabi SS, **Kalpathy-Cramer J**, Ball R, Mongan JT, Stein A, Kitamura FC, Lungren MP, Choudhary G, Cala L, Coelho L, Mogensen M, Morón F, Miller E, Ikuta I, Zohrabian V, McDonnell O, Lincoln C, Shah L, Joyner D, Agarwal A, Lee RK, Nath J; RSNA-ASNR 2019 Brain Hemorrhage CT Annotators. Construction of a Machine Learning Dataset through Collaboration: The RSNA 2019 Brain CT Hemorrhage Challenge. Radiol Artif Intell. 2020 Apr 29;2(3):e190211. PMID: 33937827; PMCID: PMC8082297.
11. Mukerji SS, Das S, Alabsi H, Brenner LN, Jain A, Magdamo C, Collens SI, Ye E, Keller K, Boutros CL, Leone MJ, Newhouse A, Foy B, Li MD, Lang M, Anahtar MN, Shao YP, Ge W, Sun H, Triant VA, **Kalpathy-Cramer J,** Higgins J, Rosand J, Robbins GK, Westover MB. Prolonged Intubation in Patients With Prior Cerebrovascular Disease and COVID-19. Front Neurol. 2021;12:642912. PMID: 33897598
12. Talati P, El-Abtah M, Kim D, Dietrich J, Fu M, Wenke M, He J, Natheir SN, Vangel M, Rapalino O, Vaynrub A, Arrillaga-Romany I, Forst DA, Yen YF, Andronesi O, **Kalpathy-Cramer J,** Rosen B, Batchelor TT, Gonzalez RG, Gerstner ER, Ratai EM. MR spectroscopic imaging predicts early response to anti-angiogenic therapy in recurrent glioblastoma. Neurooncol Adv. 2021 Jan-Dec;3(1):vdab060. PMID: 34131648.
13. Petrick N, Akbar S, Cha KH, Nofech-Mozes S, Sahiner B, Gavrielides MA, **Kalpathy-Cramer J,** Drukker K, Martel AL, and BreastPathQ Challenge Group. SPIE-AAPM-NCI BreastPathQ challenge: an image analysis challenge for quantitative tumor cellularity assessment in breast cancer histology images following neoadjuvant treatment. J Med Imaging (Bellingham). 2021 May;8(3):034501. PMID: 33987451
14. Gibson LE, Fenza RD, Lang M, Capriles MI, Li MD, **Kalpathy-Cramer J,** Little BP, Arora P, Mueller AL, Ichinose F, Bittner EA, Berra L, G Chang M. Right Ventricular Strain Is Common in Intubated COVID-19 Patients and Does Not Reflect Severity of Respiratory Illness. J Intensive Care Med. 2021 Aug;36(8):900-909. PMID: 33783269; PMCID: PMC8267080.
15. Li MD, Ahmed SR, Choy E, Lozano-Calderon SA, **Kalpathy-Cramer J**, Chang CY. Artificial intelligence applied to musculoskeletal oncology: a systematic review. Skeletal Radiol. 2021 May 19. PMID: 34013447.
16. Li MD, Wood PA, Alkasab TK, Lev MH, **Kalpathy-Cramer J,** Succi MD. Automated tracking of emergency department abdominal CT findings during the COVID-19 pandemic using natural language processing. Am J Emerg Med. 2021 May 27;49:52-57. PMID: 34062318.
17. Peng J, Kim DD, Patel JB, Zeng X, Huang J, Chang K, Xun X, Zhang C, Sollee J, Wu J, Dalal DJ, Feng X, Zhou H, Zhu C, Zou B, Jin K, Wen PY, Boxerman JL, Warren KE, Poussaint TY, States LJ, **Kalpathy-Cramer J**, Yang L, Huang RY, and Bai HX. Deep Learning-Based Automatic Tumor Burden Assessment of Pediatric High-Grade Gliomas, Medulloblastomas, and Other Leptomeningeal Seeding Tumors. Neuro Oncol. 2021 Jun 26. PMID: 34174070.
18. Balagurunathan Y, Beers A, McNitt-Gray M, Hadjiiski L, Napel S, Goldgof D, Perez G, Arbelaez P, Mehrtash A, Kapur T, Yang E, Moon JW, Bernardino G, Delgado-Gonzalo R, Mehdi Farhangi M, Amini AA, Ni R, Feng X, Bagari A, Vaidhya K, Veasey B, Safta W, Frigui H, Enguehard J, Gholipour A, Castillo LS, Daza LA, Pinsky P, **Kalpathy-Cramer J**, Farahani K. Lung Nodule Malignancy Prediction in Sequential CT Scans: Summary of ISBI 2018 Challenge. IEEE Trans Med Imaging. 2021 Jul 15;PP:. PMID: 34264825.
19. Li MD, Chang K, Mei X, Bernheim A, Chung M, Steinberger SR, **Kalpathy-Cramer J,** Little BP. Radiology Implementation Considerations for Artificial Intelligence (AI) Applied to COVID-19, From the AJR Special Series on AI Applications. AJR Am J Roentgenol. 2021 Oct 6. doi: 10.2214/AJR.21.26717. Epub ahead of print. PMID: 34612681.
20. Mongan J, **Kalpathy-Cramer J**, Flanders A, George Linguraru M. RSNA-MICCAI Panel Discussion: Machine Learning for Radiology from Challenges to Clinical Applications. Radiol Artif Intell. 2021 Jul 28;3(5):e210118. doi: 10.1148/ryai.2021210118. PMID: 34617032; PMCID: PMC8489458.
21. Morales MA, van den Boomen M, Nguyen C, **Kalpathy-Cramer J**, Rosen BR, Stultz CM, Izquierdo-Garcia D, Catana C. DeepStrain: A Deep Learning Workflow for the Automated Characterization of Cardiac Mechanics. Front Cardiovasc Med. 2021 Sep 3;8:730316. doi: 10.3389/fcvm.2021.730316. PMID: 34540923; PMCID: PMC8446607.
22. **Kalpathy-Cramer J**, Patel JB, Bridge C, Chang K. Basic Artificial Intelligence Techniques: Evaluation of Artificial Intelligence Performance. Radiol Clin North Am. 2021 Nov;59(6):941-954. doi: 10.1016/j.rcl.2021.06.005. PMID: 34689879.
23. Coyner AS, Chen JS, Singh P, Schelonka RL, Jordan BK, McEvoy CT, Anderson JE, Chan RVP, Sonmez K, Erdogmus D, Chiang MF, **Kalpathy-Cramer J,** Campbell JP. Single-Examination Risk Prediction of Severe Retinopathy of Prematurity. Pediatrics. 2021 Dec 1;148(6):e2021051772. doi: 10.1542/peds.2021-051772. PMID: 34814160.
24. Bridge CP, Best TD, Wrobel MM, Marquardt JP, Magudia K, Javidan C, Chung JH, **Kalpathy-Cramer J**, Andriole KP, Fintelmann FJ. A Fully Automated Deep Learning Pipeline for Multi-Vertebral Level Quantification and Characterization of Muscle and Adipose Tissue on Chest CT Scans. Radiol Artif Intell. 2022 Jan 5;4(1):e210080. doi: 10.1148/ryai.210080. PMID: 35146434; PMCID: PMC8823460.
25. Arun N, Gaw N, Singh P, Chang K, Aggarwal M, Chen B, Hoebel K, Gupta S, Patel J, Gidwani M, Adebayo J, Li MD, **Kalpathy-Cramer J.** Assessing the Trustworthiness of Saliency Maps for Localizing Abnormalities in Medical Imaging. Radiol Artif Intell. 2021 Oct 6;3(6):e200267. doi: 10.1148/ryai.2021200267. PMID: 34870212; PMCID: PMC8637231.

(Cover Article vol. 3, no. 6, #1 most cited articles for the journal in 2021 https://pubs.rsna.org/page/ai/blog/2022/01/ryai\_editorsblog011222)

1. Campbell JP, Chiang MF, Chen JS, Moshfeghi DM, Nudleman E, Ruambivoonsuk P, Cherwek H, Cheung CY, Singh P, **Kalpathy-Cramer J,** Ostmo S, Eydelman M, Chan RVP, Capone A Jr; Collaborative Community in Ophthalmic Imaging Executive Committee and the Collaborative Community in Ophthalmic Imaging Retinopathy of Prematurity Workgroup. Artificial Intelligence for Retinopathy of Prematurity: Validation of a Vascular Severity Scale against International Expert Diagnosis. Ophthalmology. 2022 Feb 12:S0161-6420(22)00124-5. doi: 10.1016/j.ophtha.2022.02.008. Epub ahead of print. PMID: 35157950.
2. Patel NJ, D'Silva KM, Li MD, Hsu TY, DiIorio M, Fu X, Cook C, Prisco L, Martin L, Vanni KMM, Zaccardelli A, Zhang Y, **Kalpathy-Cramer J**, Sparks JA, Wallace ZS. Assessing the Severity of COVID-19 Lung Injury in Rheumatic Diseases versus the General Population Using Deep Learning-Derived Chest Radiograph Scores. Arthritis Care Res (Hoboken). 2022 Mar 21:10.1002/acr.24883. doi: 10.1002/acr.24883. Epub ahead of print. PMID: 35313091; PMCID: PMC9081965.
3. Hanif A, Lu C, Chang K, Singh P, Coyner AS, Brown JM, Ostmo S, Chan RVP, Rubin D, Chiang MF, **Kalpathy-Cramer J\*,** Campbell JP\*; Imaging and Informatics in Retinopathy of Prematurity Consortium. Federated Learning for Multicenter Collaboration in Ophthalmology: Implications for Clinical Diagnosis and Disease Epidemiology. Ophthalmol Retina. 2022 Mar 16:S2468-6530(22)00104-X. doi: 10.1016/j.oret.2022.03.005. Epub ahead of print. PMID: 35304305.
4. Lu C, Hanif A, Singh P, Chang K, Coyner AS, Brown JM, Ostmo S, Chan RVP, Rubin D, Chiang MF, Campbell JP, **Kalpathy-Cramer J**; Imaging and Informatics in Retinopathy of Prematurity Consortium Members of the Imaging and Informatics in Retinopathy of Prematurity research consortium are as follows. Federated Learning for Multicenter Collaboration in Ophthalmology: Improving Classification Performance in Retinopathy of Prematurity. Ophthalmol Retina. 2022 Mar 14:S2468-6530(22)00103-8. doi: 10.1016/j.oret.2022.02.015. Epub ahead of print. PMID: 35296449.
5. Cox M, Reid N, Panagides JC, Di Capua J, DeCarlo C, Dua A, Kalva S, **Kalpathy-Cramer J**, Daye D. Interpretable Machine Learning for the Prediction of Amputation Risk Following Lower Extremity Infrainguinal Endovascular Interventions for Peripheral Arterial Disease. Cardiovasc Intervent Radiol. 2022 May;45(5):633-640. doi: 10.1007/s00270-022-03111-4. Epub 2022 Mar 23. PMID: 35322303.
6. Ardestani A, Li MD, Chea P, Wortman JR, Medina A, **Kalpathy-Cramer J**, Wald C. External COVID-19 Deep Learning Model Validation on ACR AI-LAB: It's a Brave New World. J Am Coll Radiol. 2022 Apr 8:S1546-1440(22)00278-2. doi: 10.1016/j.jacr.2022.03.013. Epub ahead of print. PMID: 35483438; PMCID: PMC8989698.
7. Zhang M, Qu L, Singh P, **Kalpathy-Cramer J**, L Rubin D. SplitAVG: A heterogeneity-aware federated deep learning method for medical imaging. IEEE J Biomed Health Inform. 2022 Jun 24;PP. doi: 10.1109/JBHI.2022.3185956. Epub ahead of print. PMID: 35749336.
8. Coyner AS, Oh MA, Shah PK, Singh P, Ostmo S, Valikodath NG, Cole E, Al-Khaled T, Bajimaya S, K C S, Chuluunbat T, Munkhuu B, Subramanian P, Venkatapathy N, Jonas KE, Hallak JA, Chan RVP, Chiang MF, **Kalpathy-Cramer J\***, Campbell JP\*. External Validation of a Retinopathy of Prematurity Screening Model Using Artificial Intelligence in 3 Low- and Middle-Income Populations. JAMA Ophthalmol. 2022 Aug 1;140(8):791-798. PMID: 35797036; PMCID: PMC9264225.
9. Li MD, Arun NT, Aggarwal M, Gupta S, Singh P, Little BP, Mendoza DP, Corradi GCA, Takahashi MS, Ferraciolli SF, Succi MD, Lang M, Bizzo BC, Dayan I, Kitamura FC, **Kalpathy-Cramer J**. Multi-population generalizability of a deep learning-based chest radiograph severity score for COVID-19. Medicine (Baltimore). 2022 Jul 22;101(29):e29587. PMID: 35866818; PMCID: PMC9302282.
10. Coyner AS, Chen JS, Chang K, Singh P, Ostmo S, Chan RVP, Chiang MF, Kalpathy-Cramer J, Campbell JP, Imaging and Informatics in Retinopathy of Prematurity Consortium, Synthetic medical images for robust, privacy-preserving training of artificial intelligence: application to retinopathy of prematurity diagnosis, Ophthalmology Science, 2022/6/1
11. Raghav Mehta et al, QU-BraTS: MICCAI BraTS 2020 Challenge on Quantifying, Uncertainty in Brain Tumor Segmentation - Analysis of Ranking Scores and Benchmarking Results, Journal of Machine Learning for Biomedical Imaging. 2022:026. pp 1-54 S
12. Bridge CP, Gorman C, Pieper S, Doyle SW, Lennerz JK, **Kalpathy-Cramer J,** Clunie DA, Fedorov AY, Herrmann MD. Highdicom: a Python Library for Standardized Encoding of Image Annotations and Machine Learning Model Outputs in Pathology and Radiology. J Digit Imaging. 2022 Aug 22. doi: 10.1007/s10278-022-00683-y. Epub ahead of print. PMID: 35995898.
13. Cole E, Valikodath NG, Al-Khaled T, Bajimaya S, Kc S, Chuluunbat T, Munkhuu B, Jonas KE, Chuluunkhuu C, MacKeen LD, Yap V, Hallak J, Ostmo S, Wu WC, Coyner AS, Singh P, **Kalpathy-Cramer J**, Chiang MF, Campbell JP, Chan RVP. Evaluation of an Artificial Intelligence System for Retinopathy of Prematurity Screening in Nepal and Mongolia. Ophthalmol Sci. 2022 Apr 25;2(4):100165. doi: 10.1016/j.xops.2022.100165. PMID: 36531583; PMCID: PMC9754980.
14. Brink L, Coombs LP, Kattil Veettil D, Kuchipudi K, Marella S, Schmidt K, Nair SS, Tilkin M, Treml C, Chang K, **Kalpathy-Cramer J**. ACR's Connect and AI-LAB technical framework. JAMIA Open. 2022 Nov 11;5(4):ooac094. doi: 10.1093/jamiaopen/ooac094. PMID: 36380846; PMCID: PMC9651971.
15. Gidwani M, Chang K, Patel JB, Hoebel KV, Ahmed SR, Singh P, Fuller CD, **Kalpathy-Cramer J.** Inconsistent Partitioning and Unproductive Feature Associations Yield Idealized Radiomic Models. Radiology. 2022 Dec 20:220715. doi: 10.1148/radiol.220715. Epub ahead of print. PMID: 36537895.
16. Robinson-Weiss C, Patel J, Bizzo BC, Glazer DI, Bridge CP, Andriole KP, Dabiri B, Chin JK, Dreyer K, **Kalpathy-Cramer J\*,** Mayo-Smith WW\*, Machine Learning for Adrenal Gland Segmentation and Adrenal Masses at CT, Radiology, 2022 (in press)
17. Chavva IR, Crawford AL, Mazurek MH, Yuen MM, Prabhat AM, Payabvash S, Sze G, Falcone GJ, Matouk CC, de Havenon A, Kim JA, Sharma R, Schiff SJ, Rosen MS, Kalpathy-Cramer J, Iglesias Gonzalez JE, Kimberly WT, Sheth KN. Deep Learning Applications for Acute Stroke Management. Ann Neurol. 2022 Oct;92(4):574-587. doi: 10.1002/ana.26435. Epub 2022 Jul 20. PMID: 35689531.
18. Lemay A, Hoebel K, Bridge CP, Befano B, De Sanjosé S, Egemen D, Rodriguez AC, Schiffman M, Campbell JP, Kalpathy-Cramer J. Improving the repeatability of deep learning models with Monte Carlo dropout. NPJ Digit Med. 2022 Nov 18;5(1):174. doi: 10.1038/s41746-022-00709-3. PMID: 36400939; PMCID: PMC9674698.
19. Cox M, Panagides JC, Tabari A, Kalva S, **Kalpathy-Cramer J,** Daye D. Risk stratification with explainable machine learning for 30-day procedure-related mortality and 30-day unplanned readmission in patients with peripheral arterial disease. PLoS One. 2022 Nov 21;17(11):e0277507. doi: 10.1371/journal.pone.0277507. PMID: 36409699; PMCID: PMC9678279.
20. Konz N, Buda M, Gu H, Saha A, Yang J, Chledowski J, Park J, Witowski J, Geras KJ, Shoshan Y, Gilboa-Solomon F, Khapun D, Ratner V, Barkan E, Ozery-Flato M, Martí R, Omigbodun A, Marasinou C, Nakhaei N, Hsu W, Sahu P, Hossain MB, Lee J, Santos C, Przelaskowski A, **Kalpathy-Cramer J,** Bearce B, Cha K, Farahani K, Petrick N, Hadjiiski L, Drukker K, Armato SG 3rd, Mazurowski MA. A Competition, Benchmark, Code, and Data for Using Artificial Intelligence to Detect Lesions in Digital Breast Tomosynthesis. JAMA Netw Open. 2023 Feb 1;6(2):e230524. doi: 10.1001/jamanetworkopen.2023.0524. PMID: 36821110; PMCID: PMC9951043.
21. Sobhy M, Cole E, Jabbehdari S, Valikodath NG, Al-Khaled T, Kalinoski L, Chervinko M, Cherwek DH, Chuluunkhuu C, Shah PK, K C S, Jonas KE, Scanzera A, Yap VL, Yeh S, **Kalpathy-Cramer J,** Chiang MF, Campbell JP, Chan RVP. Operationalization of Retinopathy of Prematurity Screening by the Application of the Essential Public Health Services Framework. Int Ophthalmol Clin. 2023 Jan 1;63(1):39-63. doi: 10.1097/IIO.0000000000000448. Epub 2022 Dec 27. PMID: 36598833; PMCID: PMC9839316.
22. Eilts SK, Pfeil JM, Poschkamp B, Krohne TU, Eter N, Barth T, Guthoff R, Lagrèze W, Grundel M, Bründer MC, Busch M, **Kalpathy-Cramer J,** Chiang MF, Chan RVP, Coyner AS, Ostmo S, Campbell JP, Stahl A; Comparing Alternative Ranibizumab Dosages for Safety and Efficacy in Retinopathy of Prematurity (CARE-ROP) Study Group. Assessment of Retinopathy of Prematurity Regression and Reactivation Using an Artificial Intelligence-Based Vascular Severity Score. JAMA Netw Open. 2023 Jan 3;6(1):e2251512. doi: 10.1001/jamanetworkopen.2022.51512. PMID: 36656578; PMCID: PMC9857423.
23. Patel NJ, D'Silva KM, Li MD, Hsu TYT, DiIorio M, Fu X, Cook C, Prisco L, Martin L, Vanni KMM, Zaccardelli A, Zhang Y, **Kalpathy-Cramer J**, Sparks JA, Wallace ZS. Assessing the Severity of COVID-19 Lung Injury in Rheumatic Diseases Versus the General Population Using Deep Learning-Derived Chest Radiograph Scores. Arthritis Care Res (Hoboken). 2023 Mar;75(3):657-666. doi: 10.1002/acr.24883. Epub 2022 Oct 21. PMID: 35313091; PMCID: PMC9081965.
24. Gupta S, Kumar S, Chang K, Lu C, Singh P, **Kalpathy-Cramer J.** Collaborative Privacy-preserving Approaches for Distributed Deep Learning Using Multi-Institutional Data. Radiographics. 2023 Apr;43(4):e220107. doi: 10.1148/rg.220107. PMID: 36862082.
25. Sobhy M, Cole E, Jabbehdari S, Valikodath NG, Al-Khaled T, Kalinoski L, Chervinko M, Cherwek DH, Chuluunkhuu C, Shah PK, K C S, Jonas KE, Scanzera A, Yap VL, Yeh S, **Kalpathy-Cramer J**, Chiang MF, Campbell JP, Chan RVP. Operationalization of Retinopathy of Prematurity Screening by the Application of the Essential Public Health Services Framework. Int Ophthalmol Clin. 2023 Jan 1;63(1):39-63. doi: 10.1097/IIO.0000000000000448. Epub 2022 Dec 27. PMID: 36598833; PMCID: PMC9839316.
26. Mehta R, Filos A, Baid U, Sako C, McKinley R, Rebsamen M, Dätwyler K, Meier R, Radojewski P, Murugesan GK, Nalawade S, Ganesh C, Wagner B, Yu FF, Fei B, Madhuranthakam AJ, Maldjian JA, Daza L, Gómez C, Arbeláez P, Dai C, Wang S, Reynaud H, Mo Y, Angelini E, Guo Y, Bai W, Banerjee S, Pei L, Ak M, Rosas-González S, Zemmoura I, Tauber C, Vu MH, Nyholm T, Löfstedt T, Ballestar LM, Vilaplana V, McHugh H, Maso Talou G, Wang A, Patel J, Chang K, Hoebel K, Gidwani M, Arun N, Gupta S, Aggarwal M, Singh P, Gerstner ER, **Kalpathy-Cramer J**, Boutry N, Huard A, Vidyaratne L, Rahman MM, Iftekharuddin KM, Chazalon J, Puybareau E, Tochon G, Ma J, Cabezas M, Llado X, Oliver A, Valencia L, Valverde S, Amian M, Soltaninejad M, Myronenko A, Hatamizadeh A, Feng X, Dou Q, Tustison N, Meyer C, Shah NA, Talbar S, Weber MA, Mahajan A, Jakab A, Wiest R, Fathallah-Shaykh HM, Nazeri A, Milchenko M, Marcus D, Kotrotsou A, Colen R, Freymann J, Kirby J, Davatzikos C, Menze B, Bakas S, Gal Y, Arbel T. QU-BraTS: MICCAI BraTS 2020 Challenge on Quantifying Uncertainty in Brain Tumor Segmentation - Analysis of Ranking Scores and Benchmarking Results. J Mach Learn Biomed Imaging. 2022 Aug;2022:https://www.melba-journal.org/papers/2022:026.html. PMID: 36998700; PMCID: PMC10060060.
27. Lauer A, Speroni SL, Choi M, Da X, Duncan C, McCarthy S, Krishnan V, Lusk CA, Rohde D, Hansen MB, **Kalpathy-Cramer J,** Loes DJ, Caruso PA, Williams DA, Mouridsen K, Emblem KE, Eichler FS, Musolino PL. Hematopoietic stem-cell gene therapy is associated with restored white matter microvascular function in cerebral adrenoleukodystrophy. Nat Commun. 2023 Apr 5;14(1):1900. doi: 10.1038/s41467-023-37262-w. PMID: 37019892; PMCID: PMC10076264.
28. Deng B, Gu H, Zhu H, Chang K, Hoebel KV, Patel JB, **Kalpathy-Cramer J,** Carp SA. FDU-Net: Deep Learning-Based Three-Dimensional Diffuse Optical Image Reconstruction. IEEE Trans Med Imaging. 2023 Mar 6;PP. doi: 10.1109/TMI.2023.3252576. Epub ahead of print. PMID: 37028063.
29. deCampos-Stairiker MA, Coyner AS, Gupta A, Oh M, Shah PK, Subramanian P, Venkatapathy N, Singh P, **Kalpathy-Cramer J,** Chiang MF, Chan RP, Campbell JP. Epidemiologic evaluation of retinopathy of prematurity severity in a large telemedicine program in India using artificial intelligence. Ophthalmology. 2023 Apr 6:S0161-6420(23)00205-1. doi: 10.1016/j.ophtha.2023.03.026. Epub ahead of print. PMID: 37030453.

Other peer-reviewed publications

1. **Kalpathy-Cramer J**, Hersh WR, Automatic image modality based classification and annotation to improve medical image retrieval, Stud Health Technol. Inform. 2007;129(Pt 2):1334-1338 (PMID:17911931)
2. **Kalpathy-Cramer J**, Hersh W, Kim JS, Thomas CR, Wang SJ, Survival Prediction Models for Estimating the Benefit of Post-Operative Radiation Therapy for Gallbladder Cancer and Lung Cancer, AMIA Annu Symp Proc. 2008:348-352 (PMID 18999217).
3. **Kalpathy-Cramer J**, Ozertem, U, Fuss, M, Erdogmus, D, Semi-supervised Segmentation using Non-parametric Snakes for 3D-CT Applications in Radiation Oncology, In: IEEE Workshop on Machine Learning for Signal Processing, 2008:109-114
4. Müller H, **Kalpathy-Cramer J**, Kahn C, Hatt W, Bedrick S, and Hersh W, Overview of the ImageCLEFmed 2008 medical image retrieval task, In: Peters C, Ferro TDN, Gonzalo J, et al., eds. Evaluating Systems for Multilingual and Multimodal Information Access, 9th Workshop of the Cross-Language Evaluation Forum, CLEF 2008.Vol 5706. Springer; 2009:512-522.
5. **Kalpathy-Cramer J**, Bedrick S, Hatt W, and Hersh W, Multimodal medical image retrieval OHSU at ImageCLEF 2008, in Peters C, Giampiccol D, Ferro N, Petras V, Gonzalo J, Penas A, Deselaers T, Mandl T, Jones G, Kurimo, M, Evaluating Systems for Multilingual and Multimodal Information Access, 9th Workshop of the Cross-Language Evaluation Forum, CLEF 2008, Lecture Notes in Computer Science, Vol. 5706, 744-751.
6. **Kalpathy-Cramer J,** Ozertem, U, Fuss, M, Erdogmus, D, Robust segmentation using non-parametric snakes with multiple cues for applications in radiation oncology, In: Pluim JPW, Dawant BM, eds. Medical Imaging 2009: Image Processing. Vol. 7259. SPIE; 2009:72594S.
7. Müller H, **Kalpathy-Cramer J**, Kahn CE, Hersh W, Comparing the quality of accessing the medical literature using content-based visual and textual information retrieval In: Siddiqui KM, Liu BJ, eds. Medical Imaging 2009: Advanced PACS-based Imaging Informatics and Therapeutic Applications.Vol. 7264. SPIE; 2009:726405.
8. Müller H, **Kalpathy-Cramer J**, Eggel I, Bedrick S, Radhouani S, Bakke B, Kahn CE, Hersh W, Overview of the CLEF 2009 Medical Image Retrieval Track, Multilingual Information Access Evaluation II. Multimedia Experiments, Lecture Notes in Computer Science Volume 6242, Springer, 2010:72-84
9. **Kalpathy-Cramer J**, Hersh WR, Multimodal Medical Image Retrieval - Image Categorization to Improve Search Precision, In: MIR ’10: Proceedings of the international conference on Multimedia information retrieval. New York, NY, USA: ACM; 2010:165-174.
10. Müller H, **Kalpathy-Cramer J**, The ImageCLEF Medical Competition at @ICPR 2010, The Fusion Task, in: Pattern Recognition (ICPR), 2010 20th International Conference on, 2010; 23-26: 3284-3287
11. Müller H, **Kalpathy-Cramer J**, Caputo B, Syeda-Mahmood T, Wang F, Overview of the First Workshop on Medical Content–Based Retrieval for Clinical Decision Support at MICCAI 2009, In: Caputo B, Müller H, Syeda-Mahmood T, et al., eds. Medical Content-Based Retrieval for Clinical Decision Support.Vol. 5853. Springer; 2010:1-17.
12. **Kalpathy-Cramer J**, Fuller CD, Target Contour Testing/Instructional Computer Software (TaCTICS): A Novel Training and Evaluation Platform for Radiotherapy Target Delineation, AMIA Annu Symp Proc. 2010:361-365. (PMID:21347001)
13. Wang SJ, **Kalpathy-Cramer J**, Fuller CD, Thomas CR, Parametric Survival Models for Predicting the Benefit of Adjuvant Chemoradiotherapy in Gallbladder Cancer, AMIA Annu Symp Proc. 2010: 847-851 (PMID:21347098)
14. You S, Ataer-Cansizoglu E, Erdogmus D, Tanyi J, **Kalpathy-Cramer J**, A Novel Application of Principal Surfaces for the Segmentation in 4D CT for Radiation Treatment Planning, Ninth International Conference on Machine Learning and Applications (ICMLA), 12-14 Dec. 2010; 758-763
15. You S, Bas E, Ataer-Cansizoglu E, **Kalpathy-Cramer J**, Erdogmus D., Principal curve based semi-automatic segmentation of organs in 3D-CT. Conf Proc IEEE Eng Med Biol Soc. 2011 Aug;2011:6220-3. (PMID:22255760)
16. Cao Y**, Kalpathy-Cramer** J, Ünay D, Medical multimedia analysis and retrieval, Proceedings of the 19th ACM international conference on Multimedia Retrieval, 617-618
17. **Kalpathy-Cramer J**, Bedrick SD, Boccia K, Fuller CD, A pilot prospective feasibility study of organ-at-risk definition using Target Contour Testing/Instructional Computer Software (TaCTICS), a training and evaluation platform for radiotherapy target delineation. AMIA Annu Symp Proc. 2011;2011:654-63. Epub 2011 Oct 22.(PMID:22195121)
18. Bas E, Ataer-Cansizoglu E, Erdogmus D, **Kalpathy-Cramer J**, Retinal Vasculature Segmentation using Principal Spanning Forests, ISBI, Barcelona, Spain, 2012
19. Ataer-Cansizoglu E, You S, **Kalpathy-Cramer J**, Keck K, Chiang MF, Erdogmus D. Observer and feature analysis on diagnosis of retinopathy of prematurity. IEEE Int Workshop Mach Learn Signal Process 2012: 1-6
20. Dizdaroğlu B, Ataer-Cansizoglu E, **Kalpathy-Cramer J**, Keck K, Chiang MF, Erdogmus D., Level Sets for Retinal Vasculature Segmentation Using Seeds from Ridges and Edges from Phase Maps. IEEE Int Workshop Mach Learn Signal Process. 2012:1-6.PMID: 24975694 PMCID: PMC4071603
21. Müller H, **Kalpathy-Cramer J**, Demner-Fushman D, Antani S, Creating a classification of image types in the medical literature for visual categorization, Proc. of SPIE, Vol 8319, 83190P, 2012
22. Dizdaroğlu1 B, Ataer-Cansizoglu E, **Kalpathy-Cramer J**, Keck K, Chiang MF, Erdogmus D, Structure-based level set method for automatic retinal vasculature segmentation, EURASIP Journal on Image and Video Processing 2014, 2014:39
23. Taliercio V, Logan JR, **Kalpathy-Cramer J**, Otero P, Developing a Survey to Assess Factors that Contribute to Physician Involvement in Clinical Research. Stud Health Technol Inform. 2013;192:107-11. (PMID: 23920525)
24. Hopfgartner F, Hanbury A, Müller H, Kando N, Mercer S, **Kalpathy-Cramer J**, Potthast M, Gollub T, Krithara A, Lin J, Balog K, Eggel I. 2015. Report on the Evaluation-as-a-Service (EaaS) Expert Workshop. SIGIR Forum 49, 1 (June 2015), 57-65.
25. Bolon-Canedo V, Ataer-Cansizoglu E, Erdogmus D, **Kalpathy-Cramer J,** Chiang, M.F, A GMM-based feature extraction technique for the automated diagnosis of Retinopathy of Prematurity," in Biomedical Imaging (ISBI), 2015 IEEE 12th International Symposium on , vol., no., pp.1498-1501, 16-19 April 2015
26. Jafari-Khouzani K, Gerstner E, Rosen B, **Kalpathy-Cramer J,** Upsampling dynamic contrast enhanced MRI," in Biomedical Imaging (ISBI), 2015 IEEE 12th International Symposium on , vol., no., pp.1032-1035, 16-19 April 2015
27. Ataer-Cansizoglu E, Taguchi Y, **Kalpathy-Cramer J,** Chiang MF, Erdogmus D, Analysis of shape assumptions in 3D reconstruction of retina from multiple fundus images, Biomedical Imaging (ISBI), 2015 IEEE 12th International Symposium on , pp.1502-1505, 16-19 April 2015
28. Le M, Delingette H, **Kalpathy-Cramer J**, Gerstner E, Batchelor T, Unkelbach J, Ayache N, Bayesian Personalization of Brain Tumor Growth Model, MICCAI - Medical Image Computing and Computer Assisted Intervention - 2015, Oct 2015, Munich, Germany. Springer, Lecture Notes in Computer Science – LNCS
29. Hopfgartner F, Hanbury A, Müller H, Kando N, Mercer S, **Kalpathy-Cramer J,** Potthast M, Gollub T, Krithara A, Lin J, Balog K, Eggel I., 2015. Report on the Evaluation-as-a-Service (EaaS) Expert Workshop. SIGIR Forum 49, 1 (June 2015), 57-65.
30. Müller H, **Kalpathy-Cramer J**, Hanbury A, Farahani K, Sergeev R, Paik JH, Klein A, Criminisi A, Trister A, Norman T, Kennedy D, Srinivasa G, Mamonov A, Preuss N., Report on the Cloud-Based Evaluation Approaches Workshop 2015, SIGIR Forum 50, 1 (June 2016), 38-41.
31. Tian P, Ataer-Cansizoglu E, **Kalpathy-Cramer J**, Ostmo S, Jonas K, Chan RVP, Campbell JP, Chiang MF, Erdogmus D., Toward a severity index for ROP: An unsupervised approach, 2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Orlando, FL, 2016, pp. 1312-1315.
32. Dicente Cid U, Mamonov A, Beers A, Thomas A, Kovalev V, **Kalpathy–Cramer J\*** & Müller H\*, Making Sense of Large Data Sets without Annotations: Analyzing Age–related Correlations from Lung CT Scans, SPIE Medical Imaging, 2017 (Winner of 2017 Robert F. Wagner Award for Best Student paper in Imaging Informatics)
33. Saltz J, Almeida J, Gao Y, Sharma A, Bremmer E, DiPrima T, Saltz M, **Kalpathy-Cramer J**, Kurc T., Towards Generation, Management, and Exploration of Combined Radiomics and Pathomics Datasets for Cancer Research, Proceedings of the AMIA Summit. 2017 March 30. (Winner of 2017 Marco Ramoni Distinguished Paper Award for Translational Bioinformatics at the American Medical Informatics Association (AMIA) Joint Summits on Translational). AMIA Jt Summits Transl Sci Proc. 2017 Jul 26;2017:85-94.PMID: 28815113
34. Hoebel, K., Chang, K., Patel, J., Singh, P., **Kalpathy-Cramer, J**., “Give me (un)certainty - An exploration of parameters that affect segmentation uncertainty”. In Machine Learning For Health, Neural Information Processing Systems, Dec. 2019.
35. Poirot, M.G., Vepakomma, P., Chang, K., **Kalpathy-Cramer, J.,** Gupta, R., Raskar, R., 2019, Dec, “Split Learning for collaborative deep learning in healthcare”. In New in ML, Neural Information Processing Systems, Dec 2019.
36. Sharma, V., Vepakomma, P., Swedish, T., Chang, K., **Kalpathy-Cramer,** J. Raskar, R., “ExpertMatcher: Automating ML Model Selection for Clients using Hidden Representations. In Robust AI in Financial Services: Data, Fairness, Explainability, Trustworthiness, and Privacy, Neural Information Processing Systems, Dec 2019.
37. Sharma, V., Vepakomma, P., Swedish, T., Chang, K., **Kalpathy-Cramer,** J. Raskar, R., ExpertMatcher: Automating ML Model Selection for Users in Resource Constrained Countries. In ML for the Developing World, Neural Information Processing Systems. Dec 2019.
38. Zhou M, Scott J, Chaudhury B, Hall L, Goldgof D, Yeom KW, Iv M, Ou Y, **Kalpathy-Cramer J,** Napel S, Gillies R, Gevaert O, Gatenby R. Radiomics in Brain Tumor: Image Assessment, Quantitative Feature Descriptors, and Machine-Learning Approaches. AJNR Am J Neuroradiol. 2018 Feb;39(2):208-216. doi: 10.3174/ajnr.A5391. Epub 2017 Oct 5. PMID: 28982791; PMCID: PMC5812810.
39. Hoebel K, Andrearczyk V, Beers A, Patel J, Chang K, Depeursinge A, Müller H, **Kalpathy-Cramer J,** "An exploration of uncertainty information for segmentation quality assessment," Proc. SPIE 11313, Medical Imaging 2020: Image Processing, 113131K (10 March 2020);<https://doi.org/10.1117/12.2548722>
40. Yildiz I, Dy JG, Erdogmus D, **Kalpathy-Cramer J,** Ostmo S, Campbell JP, Chiang MF, Ioannidis S., Fast and Accurate Ranking Regression. In The 23rd International Conference on Artificial Intelligence and Statistics, AISTATS 2020, volume 108 of Proceedings of Machine Learning, , pages 77–88. PMLR, 2020.http://proceedings.mlr.press/v108/yildiz20a.htmlResearch
41. Roth H, Chang K, Singh P, Neumark N, Li W, Gupta B, Gupta S, Qu L, Ihsani A, Bizzo BC, Wen Y, Buch V, Shah M, Kitamura F, Mendonça M, Lavor L, Harouni A, Compas C, Tetreault J, Dogra P, Cheng Y, Erdal S, White R, Hashemian B, Schultz T, Zhang M, McCarthy A, Yun M, Sharaf E, Hoebel K, Patel JB, Chen B, Ko S, Leibovitz E, Pisano ED, Coombs C, Xu D, Dreyer KJ, Dayan I, Naidu RC, Flores M, Rubin D, **Kalpathy-Cramer J**, Federated Learning for Breast Density Classification: A Real-World Implementation. In: Albarqouni S. et al. (eds) Domain Adaptation and Representation Transfer, and Distributed and Collaborative Learning. DART 2020, DCL 2020. Lecture Notes in Computer Science, vol 12444. Springer, Cham. <https://doi.org/10.1007/978-3-030-60548-3_18>
42. Patel J, Gidwani M, Chang K, **Kalpathy-Cramer J,** (2020) Radiomics and Radiogenomics with Deep Learning in Neuro-oncology. In: Kia S.M. et al. (eds) Machine Learning in Clinical Neuroimaging and Radiogenomics in Neuro-oncology. MLCN 2020, International Workshop on Radiomics and Radiogenomics in Neuro-oncology, RNO-AI 2020. Lecture Notes in Computer Science, vol 12449. Springer, Cham.
43. Patel J, Chang K, Hoebel K, Gidwani M, Arun N, Gupta S, Aggarwal M, Singh P, Rosen BR, Gerstner ER, **Kalpathy-Cramer J.** Segmentation, Survival Prediction, and Uncertainty Estimation of Gliomas from Multimodal 3D MRI Using Selective Kernel Networks, Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries, pp. 228-240 DOI: 10.1007/978-3-030-72087-2\_20, Mar 2021
44. Arun NT, Gaw N, Singh P, Chang K, Hoebel KV, Patel J, Gidwani M, **Kalpathy-Cramer J,** Assessing the validity of saliency maps for abnormality localization in medical imaging. In Medical Imaging with Deep Learning., Montreal, Canada, July, 2020
45. Jang I, Danley G, Chang K, **Kalpathy-Cramer J,** Decreasing Annotation Burden of Pairwise Comparisons with Human-in-the-Loop Sorting: Application in Medical Image Artifact Rating, Data-Centric AI, Neural Information Processing Systems, Dec 2021.
46. Coyner AS, Chen J, Campbell JP, Ostmo S, Singh P, **Kalpathy-Cramer J,** Chiang MF. Diagnosability of Synthetic Retinal Fundus Images for Plus Disease Detection in Retinopathy of Prematurity. AMIA Annu Symp Proc. 2021 Jan 25;2020:329-337. PMID: 33936405; PMCID: PMC8075515.
47. Yildiz V, Ioannidis S, Yildiz I, Tian P, Campbell JP, Ostmo S, **Kalpathy-Cramer J,** Chiang MF, Erdoğmuş D, Dy J, Structural Visual Guidance Attention Networks In Retinopathy Of Prematurity, 2021 IEEE 18th International Symposium on Biomedical Imaging (ISBI), 2021, pp. 353-357, doi: 10.1109/ISBI48211.2021.9433881.
48. Lu C, Lemay A, Hoebel K, **Kalpathy-Cramer J,** Evaluating subgroup disparity using epistemic uncertainty in mammography, Workshop on Interpretable ML in Healthcare, Thirty-eighth International Conference on Machine Learning, 2021
49. Mongan J, **Kalpathy-Cramer J,** Flanders A, Linguraru MG, RSNA-MICCAI Panel Discussion: Machine Learning for Radiology from Challenges to Clinical Applications, Radiol Artif Intell, 2021, https://doi.org/10.1148/ryai.2021210118
50. Patel J, Chang K., Ahmed S.R, Jang I, **Kalpathy-Cramer J,** Opportunities and Challenges for Deep Learning in Brain Lesions. Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries, 12962, pp. 25-36, Mar 2022.
51. Hoebel K, Bridge CP, Ahmed S, Akintola O, Chung C, Huang R., Johnson J, Kim A, Ly K.I., Chang K, Patel J, Pinho M, Batchelor TT, Rosen B, Gerstner E, **Kalpathy-Cramer J**,. Is this good enough? On expert perception of brain tumor segmentation quality. Medical Imaging 2022: Image Perception, Observer Performance, and Technology Assessment, 12035, pp. 165-175, April 2022.
52. Hoebel K, Bridge, C, Lemay A, Chang K, Patel J, Rosen B, **Kalpathy-Cramer J,** Do I know this? segmentation uncertainty under domain shift. Medical Imaging: Image Processing, 12032, pp. 1203211-1, April 2022
53. Kumar S, Lakshminarayanan A, Chang K, Guretno F, Mien IH, Kalpathy-Cramer J, Krishnaswamy P, Singh P. Towards More Efficient Data Valuation in Healthcare Federated Learning using Ensembling. Distrib Collab Fed Learn Afford AI Healthc Resour Div Glob Health (2022). 2022 Sep;13573:119-129. doi: 10.1007/978-3-031-18523-6\_12. Epub 2022 Oct 7. PMID: 36745141; PMCID: PMC9890952.

Book (editor)

|  |
| --- |
| 1. Caputo B, Müller H, Syeda-Mahmood, T, Duncan JS, Wang F, **Kalpathy-Cramer J** (eds), Medical Content-Based Retrieval for Clinical Decision Support, Springer Lecture Notes in Computer Science, vol. 5853, 2010 2. Peters C, Tsikrika T, Müller H, **Kalpathy-Cramer J**, Jones G, Gonzalo J, Caputo B (eds), Multilingual Information Access Evaluation II -Multimedia Experiments, (2010), in: Lecture Notes in Computer Science, vol. 6242, 2010   **Book (chapter)**   1. Hersh WR, **Kalpathy-Cramer J**, Jensen J, Medical Image Retrieval and Automated Annotation: OHSU at ImageCLEF 2006. In: Peters C, Clough P, Gey FC, et al., eds. Evaluation of Multilingual and Multi-modal Information Retrieval. Vol. 4730. Springer; 2006:660-669. 2. Goldstein N, Ross D, Christensen K, **Kalpathy-Cramer J**, Kumar A, Schroeder M, Digital Radiology Divide at McKinly, in Transforming Health Care Through Information: Case Studies, Einbinder L, Lorenzi NM, Ash J, Gadd CS, Einbinder J (eds), 179-189, Springer 2010 3. **Kalpathy-Cramer J**, Müller H, Systematic Evaluations and Ground Truth in Biomedical Image Processing - Methods and Applications, eds Thomas M. Deserno (geb. Lehmann), 497- 520, Springer 2010 4. Müller H, **Kalpathy-Cramer J**, The Medical Image Retrieval Task, in: ImageCLEF- Experimental Evaluation of Visual Information Retrieval, Müller H, Clough P, Deselaers D, Caputo B, The Information Retrieval Series, 239-255,Vol. 32, Springer, 2010 5. Bedrick S, Radhouani S, **Kalpathy-Cramer J**, Improving Early Precision in the ImageCLEF Medical Retrieval Task in: ImageCLEF- Experimental Evaluation of Visual Information Retrieval, Müller H, Clough P, Deselaers D, Caputo B, The Information Retrieval Series, 397-412, Vol. 32, Springer, 2010 6. **Kalpathy-Cramer J**, Hersh W, Relevance Judgments for Image Retrieval Evaluation, in : ImageCLEF- Experimental Evaluation of Visual Information Retrieval, Müller H, Clough P, Deselaers D, Caputo B, The Information Retrieval Series, 63-69, Vol. 32, Springer, 2010 7. Chang, K., Beers, A., Brown, J., **Kalpathy-Cramer, J.** 2019. Resources and datasets for radiomics. In Li, R., Xing, L., Napel, S., & Rubin, D, Radiomics and Radiogenomics: Technical Basis and Clinical Applications (pp.179-190). Chapman and Hall, London, UK. DOI: 10.1201/9781351208277-11 8. Chang, K., Singh, P., Vepakomma, P., Poirot, M.G., Raskar, R., Rubin, D.L., **Kalpathy-Cramer, J.,** 2020. Privacy-preserving collaborative deep learning methods for multiinstitutional training without sharing patient data. In Xing, L., Giger, M.L., & Min, J.K., Artificial Intelligence in Medicine (pp.101-112). Academic Press, Cambridge, MA. DOI: 10.1016/B978-0-12-821259-2.00006-5 9. **Kalpathy-Cramer, J.,** Patel, J., Bridge, C., & Chang, K., 2021, Aug. Basic AI Techniques: Evaluation of AI Performance. Radiologic Clinics of NA, 59(6), pp. 1-14 10. Patel, J., Gidwani, M., Chang, K., **Kalpathy-Cramer, J.,** 2020, Oct. Radiomics and Radiogenomics with Deep Learning in Neuro-oncology. Machine Learning in Clinical Neuroimaging and Radiogenomics in Neuro-oncology, 12449(1), pp.199-211. DOI: 10.1007/978-3-030-66843-3\_20 11. Chang, K., Gidwani, M., Patel, J., Li, M.D., **Kalpathy-Cramer, J.,** 2020. Data Curation Challenges for Artificial Intelligence. In Yang, J, Sharp, G.C., & Gooding, M.J., Auto-Segmentation for Radiation Oncology (pp.201-216). CRC Press, Boca Raton, FL. DOI: 10.1201/9780429323782-17   **Other Publications**   1. Hersh WR, Müller H, **Kalpathy-Cramer J**, Kim E, Consolidating the ImageCLEF medical task test collection: 2005-2007, Proceedings of the Third MUSCLE/ImageCLEF Workshop on Image and Video Retrieval Evaluation, 2006, 31-39. 2. Müller H, Deselaers T, Kim E, **Kalpathy-Cramer J**, Deserno TM, Hersh W, Overview of the ImageCLEF 2007 medical retrieval and annotation tasks, Working Notes for the CLEF 2007 Workshop, 2007. 3. **Kalpathy-Cramer J,** Hersh W, Medical image retrieval and automatic annotation: OHSU at ImageCLEF 2007, Working Notes for the CLEF 2007 Workshop, 2007. 4. **Kalpathy-Cramer J**, Bedrick S, Hatt W, Hersh W, Multimodal Medical Image Retrieval: OHSU at ImageCLEF 2008, Working Notes of CLEF 2008 Workshop, 2008 5. Müller H, **Kalpathy-Cramer J**, Kahn CE, Hatt W, Bedrick S, Hersh W, Overview of the ImageCLEFmed 2008 Medical Image Retrieval Task, Working Notes of CLEF 2008 Workshop, 2008 6. Radhouani S, **Kalpathy-Cramer J,** Bedrick S, Bakke B, Hersh W, Multimodal Medical Image Retrieval: Improving Precision at ImageCLEF 2009, Working Notes of CLEF 2009 Workshop, 2009 7. Müller H, **Kalpathy-Cramer J**, Eggel I, Bedrick S, Said S, Bakke B, Kahn CE, Hersh W, Overview of the 2009 Medical Image Retrieval Task, Working Notes of CLEF 2009 Workshop, 2009 |

[Thesis](http://cv.hms.harvard.edu/index.php?page=thesis)

|  |
| --- |
| **Kalpathy J**, Electrical, chemical and thermal behavior of deposited silicon oxides: A comparison between PECVD, ECR and sputtered films (Doctoral Dissertation), Rensselaer Polytechnic Institute, Troy, NY, 1993 |

[Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings](http://cv.hms.harvard.edu/index.php?page=abstracts)

2013

1. Polaskova P, Jafari-Khouzani K, Guimaraes AR, Stufflebeam SM, Wen PY, Batchelor TT, Rosen BR, Gerstner ER, Kalpathy-Cramer J, Voxel-Wise Repeatability of Apparent Diffusion Coefficient in Patients with Newly Diagnosed Glioblastoma, Proc Intl Soc Mag Reson Med, 21, 2013, Salt Lake City, ISMRM Magna Cum Laude Merit Award, (selected oral abstract presented by Kalpathy-Cramer).

2014

|  |
| --- |
| 1. Patel SN, Chan RVP, Ruggeri A, Poltti E, Ataer-Cansizoglu E, **Kalpathy-Cramer J,** Jonas K, Ostmo S, Chiang MF. Functional modifications of retinal images in quantitative plus disease diagnosis of retinopathy of prematurity. Presented at the 2014 ARVO annual meeting (Orlando, FL). 2. Chandra V, Ou Y, Evans JG, **Kalpathy-Cramer J,** Dietrich J, Chi A, Wen PY, Rosen BR, Batchelor TT, Gerstner ER, Phase II study of tivozanib, an oral VEGFR inhibitor, in patients with recurrent glioblastoma. Society for Neuro-Oncology 2014 poster presentation, Neuro Oncol (2014) 16 (suppl 5): v11 3. Chandra V, Ou Y, **Kalpathy-Cramer J,** Evans JG, Sprinkhuizen S, Batchelor TT, Gerstner ER. Longitudinal Diffusion MR Imaging for Patients with Primary CNS Lymphoma being treated with High-dose Methotrexate, Rituximab, and Temozolomide (MRT). ASCO 2014 poster presentation, J Clin Oncol 32:5s, 2014 (suppl; abstr 8579) 4. Huang W, Li X, Li X, Chang MC, Oborski MJ, Malyarenko DI, Muzi M, Jajamovich G, Fedorov A, Chen Y, Tudorica A, Gupta SN, Laymon CM, Marro KI, Dyvorne HA, Miller JV, Chenevert TL, Yankeelov TW, Mountz JM, Paul E Kinahan PE, Kikinis R, Taouli B, Fennessy F, **Kalpathy-Cramer J,** Variations in DCE-MRI Assessment of Breast Cancer Therapy Response: A Multicenter Data Analysis Challenge, Proc Intl Soc Mag Reson Med, 22, 2014, Milan, Italy, (selected oral abstract presented by Huang). 5. Larsson C, Kalpathy-Cramer J, Bjørnerud A, Wen PY, Batchelor TT, Jain RK, Sorensen AG, Emblem KE, Re-use of subject-specific AIFs are warranted in longitudinal DCE-MRI, Proc Intl Soc Mag Reson Med, 22, 2014, Milan, Italy   2015   1. Loh AR, Ryan M, Abrahams K, Cansizoglu E, Chan RVP, Berrocal A, **Kalpathy-Cramer J,** Chiang MF. Uncertainty in the diagnosis of pre-plus disease in retinopathy of prematurity. Presented at the 2015 AAPOS annual meeting (New Orleans, LA). 2. Patel SN, Chan RVP, Ruggeri A, Poletti E, **Kalpathy-Cramer J,** Jonas K, Ostmo S, Chiang MF. Quantitative plus disease image analysis in retinopathy of prematurity: influence of crop size and shape. Presented at the 2015 ARVO Imaging Conference (Denver, CO). 3. Loh AR, Ryan M, Abrahams K, Cansizoglu E, Chan RVP, Berrocal A, **Kalpathy-Cramer J,** Chiang MF. Uncertainty in the diagnosis of pre-plus disease in retinopathy of prematurity. Submitted to the 2015 ARVO annual meeting (Denver, CO). 4. Jafari-Khouzani K, Bilgic B, **Kalpathy-Cramer J**, Setsompop K, Fast non-local means reconstruction for multi-contrast compressed sensing, Proc Intl Soc Mag Reson Med, p3707, 2015, Toronto, Canada. 5. Jafari-Khouzani K, Gerstner E, Rosen B, **Kalpathy-Cramer J**. Upsampling dynamic contrast enhanced MRI," in Biomedical Imaging (ISBI), IEEE 12th International Symposium on , 1032-1035, 16-19 April 2015, 6. **Kalpathy-Cramer J**, Renvall V, Gerstner E, Salat D, Coutu JP, Rosen BR, Polimeni JP, Simultaneous UHF quantitative T1 mapping and T2\* weighted dynamic contrast imaging with applications to brain tumors. Proc Intl Soc Mag Reson Med, 23, p4392, 2015, Toronto, Canada 7. Newitt D, Malyarenko D, Chenevert T, Quarles C, Bell L, Fedorov A, Fennessy F, Jacobs M, Solaiyappan M, Hectors S, Taouli B, Schmainda K, Prah M, Yen Y, **Kalpathy-Cramer J**, Taber E, Kroenke C, Cao Y, Aryal M, Muzi M, Kinahan P, Yankeelov T, Arlinghaus L, Boss M, Shukla-Dave A, Hylton N, Multi-site Concordance of DWI Metrics: Results of the NCI Quantitative Imaging Network ADC Mapping Collaborative Project, Proc Intl Soc Mag Reson Med, 2015, Toronto, Canada 8. Cai X, Chandra V, Ou Y, Emblem KE, Muzikansky A, Evans JG, **Kalpathy-Cramer J**, Dietrich J, Chi A, Wen PY, Rosen BR, Batchelor TT, Gerstner ER. Phase II study of tivozanib, an oral VEGFR inhibitor, in patients with recurrent glioblastoma. 2015 ASCO Annual Meeting, J Clin. Oncol. Vol 33, No 15, suppl 2015 9. Gerstner ER, Izquierdo D, Ou Y, Emblem KE, Cai X, Da X, Chonde D, Martin N, Hooker D, Catana C, **Kalpathy-Cramer J**, Rosen BR, Batchelor TT. Radiolabeled temozolomide can measure bevacizumab induced vascular modulation in patients with recurrent GBM. Society for Neuro-Oncology 2015 10. Musolino P, Lauer A, Hansen MB**, Kalpathy-Cramer J**, Mouridsen K, Rosen B, Eichler F, Oxygen Extraction Fraction and Microvascular Permeability in X-linked Adrenoleukodystrophy, AAN Annual meeting, 2015   2016   1. Campbell JP, Ataer-Cansizoglu E, Bolon-Canedo V, Erdogmus D, **Kalpathy-Cramer J,** Patel SN, Chan RVP, Chiang MF. Plus disease: more than meets the ICROP? 2016 AAPOS annual meeting (Vancouver, Canada). (selected oral abstract presented by Campbell). 2. Huang W, Chen Y, Fedorov A, Li X, Jajamovich G, Malyarenko DI, Aryal M, LaViolette PS, Oborski MJ, O’Sullivan F, Abramson RG, Muzi M, Jafari-Khouzani K, Afzal A, Tudorica A, Moloney B, Besa C, **Kalpathy-Cramer J**, Mountz JM, Laymon CM, Schmainda K, Cao Y, Chenevert TL, Taouli B, Yankeelov TE, Fennessy F, Li X, The Impact of Arterial Input Function Determination Variation on Prostate Dynamic Contrast-Enhanced Magnetic Resonance Imaging Pharmacokinetic Modeling: A Multicenter Data Analysis Challenge, Proc Intl Soc Mag Reson Med, 24, 2016, Singapore 3. Shazeeb MS, **Kalpathy-Cramer J,** Issa B, Simulation study investigating the effect of diffusion, susceptibility, and vessel topology in characterizing normal and tumorous vasculature using R2\*, Proc Intl Soc Mag Reson Med, 24, 2016, Singapore 4. Li K, Mohamed ASR, Ding Y, Awan MJ, Frank SJ, Wang J, Hazle JD, Hutcheson K, Lai SY, **Kalpathy-Cramer J**, Li X, Fuller CD, Huang W, DCE-MRI Evidence of Biological Changes in Irradiated Healthy Muscle Following Chemoradiotherapy Treatment of Head and Neck Cancer, Proc Intl Soc Mag Reson Med, 24, 2016, Singapore 5. Lauer A, Cai X, Da Z, Aziz-Bose R, Ou Y, Kalpathy-Cramer J, Hansen MB, Mouridsen K, Rosen B, Eichler F, Musolino P, DSC MR Perfusion Microvascular Abnormalities Can Predict Lesion Progression in Cerebral X-Linked Adrenoleukodystrophy, American Academy of Neurology Annual Meeting, 2016 6. Kanwar A, Mohamed ASR, Court LE, Zhang L, Marai GT, Canahuate G, Lee JS, Perni S, Messer JA, Pham BH, Youssef B, Vock D, Rao A, Kalpathy-Cramer J, Gunn GB, Rosenthal DI, Fuller CD, Development of a Predictive Quantitative Contrast Computed Tomography-Based Feature (Radiomics) Profile for Local Recurrence in Oropharyngeal Cancers, Proceedings of the 58th Annual Meeting of the American Society for Radiation Oncology, 2016 7. Kanwar A, Zhu Y, Mohamed AS, Kirby J, Ding Y, Shiao JC, Messer J,Wong A, Rosenthal DI, Colen RR, Skinner H, **Kalpathy-Cramer J**, Court LE, Ji Y, Fuller CD, Radiogenomic Analysis of The Cancer Genome Atlas (TCGA)/The Cancer Imaging Archive (TCIA) Head and Neck Squamous Cell Cancer (HNSCC) Cohort: Correlations between Genomic Features and Quantitative Imaging Features, RSNA Annual meeting 2016, Chicago, IL 8. Fedorov A, Rubin DL, Clunie DA, Flade D, Nolden M, Hafey C, Rannou N, Baumhauer M, Meine H, Mongkolwat P, **Kalpathy-Cramer J**, Kirby J, Onken M, Riesmeier J, Pienaar R, Marcus DS, Harris GJ, Pieper SD, Kikinis R, Baumann M, Interoperable Communication of Quantitative Image Analysis Results Using the DICOM Standard, RSNA Annual meeting 2016, Chicago IL 9. Ly I, Ou Y, Da X, Batchelor TT, Kalpathy-Cramer J, Gerstner E, MRI Changes in Newly Diagnosed Glioblastoma During Treatment with Chemoradiation and Adjuvant Temozolomide, SNO annual meeting, Scottsdale, AZ 2016 10. Yen Y, Da X, Catana C, Ou Y, Hooker J, Kalpathy-Cramer J, Rosen B, Batchelor T, Gerstner E, Penetration of radiolabeled temozolomide correlates with contrast enhancement in patients with recurrent GBM treated with bevacizumab, SNO annual meeting, Scottsdale, AZ 2016 (selected oral abstract presented by Yen).   2017   1. Ly I, Wichtmann B, Huang SY, Nummenmaa A, Andronesi O, Fan Q, Curry WT, Cahill DP, Golby AJ, Batchelor TT, **Kalpathy-Cramer J,** Rosen B, Gerstner ER, Characterizing glioma microenvironment with ultra-high gradient diffusion MRI, ASCO annual meeting, Chicago, Illinois, 2017 2. Yen Y, **Kalpathy-Cramer J**, Catana C, Da X, Ou Y, Beers A, Hooker J, Rosen BR, Batchelor TT, Gerstner ER, Multimodal Imaging of Vascularity and Drug Delivery in GBM Patients Treated with Anti-angiogenesis Inhibitor, Proc Intl Soc Mag Reson Med, 25, 2017, Hawaii (selected oral abstract presented by Yen). 3. Huang W, Chen Y, Fedorov A, Li X, Jajamovich G, Malyarenko D, Aryal M, LaViolette P, Oborski M, O'Sullivan F, Abramson R, Jafari-Khouzani K, Afzal A, Tudorica A, Moloney B, Gupta S, Besa C, **Kalpathy-Cramer J**, Mountz J, Laymon C, Muzi M, Kinahan P, Schmainda K, Cao Y, Chenevert T, Taouli B, Yankeelov T, Fennessy F, Li X, Effects of AIF Quantification Variations on Shutter-Speed Pharmacokinetic Modeling of Prostate DCE-MRI Data: A Multicenter Data Analysis Challenge, Part II, Proc Intl Soc Mag Reson Med, 25, 2017, Hawaii. 4. Schmainda K, Prah M, Rand S, Muzi M, Rane S, Da X, Yen Y, **Kalpathy-Cramer J**, Chenevert T, Malyarenko D, Hoff B, Ross B, Cao Y, Aryal M, Erickson B, Korfiatis P, Bell L, Hu L, Quarles C, Multi-Site Concordance of DSC-MRI Analysis for Brain Tumors: Results of a NCI Quantitative Imaging Network DSC-MRI Collaborative Project, Proc Intl Soc Mag Reson Med, 25, 2017, Hawaii. (selected oral abstract presented by Schmainda). 5. Li K, Chen Y, Yu Y, Li X, Fedorov A, Jajamovich G, Malyarenko D, Aryal M, LaViolette P, Oborski M, O'Sullivan F, Abramson R, Jafari-Khouzani K, Afzal A, Tudorica A, Moloney B, Gupta S, Besa C, **Kalpathy-Cramer J**, Mountz J, Laymon C, Muzi M, Kinahan P, Schmainda K, Cao Y, Chenevert T, Taouli B, Fennessy F, Yankeelov T, Li X, Huang W, The Effects of AIF Quantification Variations on DCE-MRI Prediction of Soft Tissue Sarcoma Response to Preoperative Therapy: A Preliminary Multicenter Study, Proc Intl Soc Mag Reson Med, 25, 2017, Hawaii. 6. Bane O, Hectors S, Wagner M, Arlinghaus L, Aryal M, Boss M, Cao Y, Chenevert T, Fennessy F, Huang W, Hylton N, **Kalpathy-Cramer J**, Keenan K, Malyarenko D, Mulkern R, Newitt D, Stupic K, Wilmes L, Yankeelov T, Yen Y, Russek S, Taouli B, Assessment of interplatform reproducibility of T1 quantification methods used for DCE-MRI: results from a multicenter phantom study, Proc Intl Soc Mag Reson Med, 25, 2017, Hawaii. 7. Beers A, Yen Y, Emblem KE, Gerstner ER, Rosen B, **Kalpathy-Cramer J**, Repeatability of ktrans derived from DCE-MRI in newly diagnosed glioblastoma across multiple baseline images and processing methods. Proc Intl Soc Mag Reson Med, 25, 2017, Hawaii. 8. Campbell JP, Kim S, Swan R, Jonal KE, Ostmo S, Ioannidis S, Erdogmus D, **Kalpathy-Cramer J,** Chan RVP, Chiang MF, Is there clinical utility for a continuous severity score for plus disease in ROP? ARVO annual meeting, Baltimore, MD, 2017 (selected oral abstract presented by Campbell). 9. Tibrewal S, Tian P, Kedarisetti D, **Kalpathy-Cramer J**, Ioannidis S, Erdogmus D, Campbell JP, Chan RVP, Chiang MF, Evaluation of computer-based image analysis for retinopathy of prematurity screening, ARVO annual meeting, Baltimore, MD 2017 10. Coyner A, Swan R, **Kalpathy-Cramer J,** Kim SJ, Campbell JP, Jonas KE, Ostmo S, Chan RVP, Chiang MF, Automated Image Quality Assessment for Fundus Images in Retinopathy of Prematurity, ARVO annual meeting, Baltimore, MD 2017 11. **Kalpathy-Cramer J,** Campbell JP, Kim SJ, Swan R, Jonas KE, Ostmo S, Tian P, Kedarisetti D, Ioannidis S, Erdogmus D, Chan RVP, Chiang MF, Deep learning for the identification of plus disease in retinopathy of prematurity, ARVO annual meeting, Baltimore, MD 2017   2018   1. Chang K, Brown J, Beers A, Rosen B, Ay H, **Kalpathy-Cramer J**, Volumetric Segmentation of Acute Brain Infarcts on Diffusion-Weighted Imaging using Deep Learning, RSNA 2018, Chicago, IL [Oral presentation by Ken Chang] 2. Beers A, Chang K, Brown J, Yen Y, Gerstner E, Rosen B, Kalpathy-Cramer J, DeepNeuro: Easy-To-Use and Validated Deep Learning Tools for Neuroimaging Analysis, QIRR, Learning Center, RSNA 2018, Chicago, IL   2019   1. Hoebel K, Kollar B, Chang K, Beers A, Brown J, Patel J, Pomahac B, Kalpathy-Cramer J, Deep Learning Vessel Segmentation for Microsurgical Free Tissue Transfer [Oral presentation], 3/2019 APS meeting, Boston, MA 2. Danford I, Greenwald M, Ostmo S, Brown J, Kalpathy-Cramer J, Schelonka R, Cohen H, Campbell JP, Chiang MF. Telemedicine for ROP Diagnosis in a Real-World System: Technical Description and Evaluation. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 3. Kim SJ, Campbell JP, Brown J, Ostmo S, Chan RVP, Kalpathy-Cramer J, Chiang MF. A Proposed 1 to 9 Severity Scale for Vascular Abnormalities in Retinopathy of Prematurity. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 4. Redd T, Parag S, Brown J, Ostmo S, Chan RVP, Kalpathy-Cramer J, Venkatapathy N, Chiang MF, Campbell JP. Utilization of a Deep Learning Image Assessment Tool for Epidemiologic Surveillance of Retinopathy of Prematurity. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 5. Brown J, Coyner A, Hu S, Shahrawat M, Campbell JP, Ostmo S, Chan RVP, Chiang MF, Shah PK, Kalpathy- Cramer J. Deep learning for automated diagnosis of plus disease in Indian ROP patients. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 6. Campbell JP, Brown J, Kalpathy-Cramer J, Chan RVP, Chiang MF. Analysis of dimensionality reduction techniques in a deep convolutional neural network for diagnosis of plus disease in retinopathy of prematurity. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 7. Greenwald M, Danford I, Ostmo S, Brown J, Kalpathy-Cramer J, Schelonka R, Cohen H, Campbell JP, Chiang MF. Telemedicine for ROP Diagnosis in a Real-World System: Feasibility of Implementing Artificial Intelligence for Disease Screening. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 8. Smith K, Kim SJ, Goldstein I, Ostmo S, Chan RVP, Brown J, Kalpathy-Cramer J, Campbell JP, Chiang MF. Quantitative analysis of aggressive posterior retinopathy of prematurity using deep learning. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 9. Choi R, Brown J, Kalpathy-Cramer J, Chan RVP, Ostmo S, Campbell JP, Chiang MF. Imaging and Informatics in Retinopathy of Prematurity (i-ROP) Vascular Severity Score: Analysis of Treatment Level by Different Experts. Presented at the 2019 ARVO annual meeting (Vancouver, BC). 10. Chang K, Brown J, Beers A, Rosen B, Kalpathy-Cramer J, Ay H, Fully-Automated Ischemic Brain Infarct Volumetric Segmentation in Diffusion Weighted MR using Deep Learning, 5/2019 International Stroke Conference, AHA, Honolulu, HI, 11. Chang K, Brown J, Beers A, Kalpathy-Cramer J, Ay H , Viscerotoxic Brain Infarcts: The Results of Heart-Brain Interactions [Oral presentation], 5/2019 International Stroke Conference, AHA, Honolulu, HI, 12. Chang K, Beers A, Bai H, Brown J, Ly L, Li K, Senders K , Kavouridis V, Boaro A, Su C, Agbodza E, Bi W, Rapalino O, Liao W, Shen Q, Zhou H, Xiao B, Wang Y, Zhang P, Pinho M, Wen P, Batchelor T, Arnaout O, Rosen B, Gerstner E, Yang L, Huang R, Kalpathy-Cramer J, Fully-Automated Glioma Volumetric Segmentation and Treatment Response Assessment in MRI using Deep Learning [Power Pitch], 5/2019 ISMRM, Montreal, QC, Canada 13. Bell B, Semmineh N, An H, Eldeniz C, Wahl R, Schmainda K, Prah M, Erickson B, Korfiatis P, Wu C, Sorace A, Rutledge N, Yankeelov T, Chenevert T, Malyarenko D, Liu D, Brenner A, Hu L, Zhou Y, Boxerman J, Yen Y, Kalpathy-Cramer J, Beers A, Muzi M, Madhuranthakam A, Pinho M, Johnson B, Quarles C, Evaluating multi-site rCBV consistency from DSC-MRI imaging protocols and post-processing software across the NCI Quantitative Imaging Network sites using a Digital Reference Object [Oral], 5/2019 ISMRM, Montreal, QC, Canada 14. Patel J, Beers A, Chang K, Brown J, Hoebel K, Rosen B, Huang R, Brastianos P, Gerstner E, Kalpathy-Cramer J, Segmentation of Brain Metastatic Lesions in Magnetic Resonance Imaging using Deep Learning, [Power Pitch], 5/2019 ISMRM, Montreal, QC, Canada 15. Hoebel K, Beers A, Brown J, Chang K, Patel J, Pinho M, Rosen B, Batchelor T, Gerstner E, Kalpathy-Cramer J, Repeatability of radiomics features in double baseline MR imaging of glioblastoma, [Digital Poster], 5/2019 ISMRM, Montreal, QC, Canada 16. Chang K, Brown J, Beers A, Hoebel K, Patel J, Rapalino O, Rosen B, Ay H, Kalpathy-Cramer J, Volumetric Segmentation of Acute Brain Infarcts on Diffusion-Weighted Imaging using Deep Learning [Digital Poster], 5/2019 ISMRM, Montreal, QC, Canada 17. Chang K, Beers AL, Brown JM, Hoebel KV, Patel JB, Chiang J, Ly KI, Tolaney SM, Brastianos P, Rosen BR, Gerstner ER, Kalpathy-Cramer J, DeepNeuro: An Open-source Deep Learning Toolbox for Neuroimaging [Oral Presentation], Conference on Machine Intelligence in Medical Imaging, Austin, TX 9/21/2019 18. Chang K, Beers AL, Bai HX, Brown JM, Ly KI, Li X, Senders JT, Kavouridis VK, Boaro A, Su C, Bi WL, Rapalino O, Liao W, Shen Q, Zhou H, Xiao B, Wang Y, Zhang PJ, Pinho MC, Wen PY, Batchelor TT, Boxerman JL, Arnaout O, Rosen BR, Gerstner ER, Yang Y, Huang RY, Kalpathy-Cramer J, Automatic Glioma Volume and Bi-directional Measurement in MRI Using Deep Learning, [Oral Presentation], Conference on Machine Intelligence in Medical Imaging, Austin, TX 9/21/2019 19. Chang K, Patel JB, Beers AL, Brown JM, Hoebel KV, Rosen BR, Huang RY, Brastianos P, Gerstner ER, Kalpathy-Cramer J, PhD, Automatic Segmentation and Longitudinal Tracking of Brain Metastatic Lesions on MRI [Oral Presentation], Conference on Machine Intelligence in Medical Imaging, Austin, TX 9/21/2019 20. Balachandar N, Chang K, Kalpathy-Cramer J, Rubin DL, Overcoming Data Variability Challenges to Federated Deep Learning for Medical Image Analysis [Oral Presentation], Conference on Machine Intelligence in Medical Imaging, Austin, TX 9/21/2019   2020   1. Kim A, Cardona J, Chang K, Beers A, Brown J, Emblem K, Kalpathy-Cramer J, Lee E, Lin N, Tolaney S, Nayak L, Chukwueke U, Oh K, Shih H, White M, Lawrence D, Moy B, Cohen J, Giobbie-Hurder A, Cahill D, Sullivan R, Brastianos P, Gerstner E, “Advanced imaging to assess longitudinal vascular changes in brain metastases treated with checkpoint inhibition”, Neuro-Oncology, Volume 22, Issue Supplement\_2, November 2020, Page ii147, <https://doi.org/10.1093/neuonc/noaa215.618> (SNO meeting 2020) 2. Roth H.R. et al. (2020) Roth H, Chang K, Singh P, Neumark N, Li W, Gupta B, Gupta S, Qu L, Ihsani A, Bizzo BC, Wen Y, Buch V, Shah M, Kitamura F, Mendonça M, Lavor L, Harouni A, Compas C, Tetreault J, Dogra P, Cheng Y, Erdal S, White R, Hashemian B, Schultz T, Zhang M, McCarthy A, Yun M, Sharaf E, Hoebel K, Patel JB, Chen B, Ko S, Leibovitz E, Pisano ED, Coombs C, Xu D, Dreyer KJ, Dayan I, Naidu RC, Flores M, Rubin D, Kalpathy-Cramer J, Federated Learning for Breast Density Classification: A Real-World Implementation. In: Albarqouni S. et al. (eds) Domain Adaptation and Representation Transfer, and Distributed and Collaborative Learning. DART 2020, DCL 2020. Lecture Notes in Computer Science, vol 12444. Springer, Cham. <https://doi.org/10.1007/978-3-030-60548-3_18> 3. Daye, D., Tabari, A., Kim, H., Chang, K., Orama, S.B., Bai, H., Kalva, S., Gee, M., Kalpathy-Cramer, J., Wehrenberg-Klee, E. and Uppot, R., 2020, March. Machine learning-based radiomic features on pre-ablation magnetic resonance imaging as predictors of pathologic response in patients with hepatocellular carcinoma listed for hepatic transplant. Society of Interventional Radiology. 2020 4. Chang, K., Brown J.M., Singh, P., Patel, J.B., Hoebel, K.V., Beers, A.L., Rosen, B.R., Kalpathy- ABSTRACTS Cramer, J., 2020, Aug, Viscerotoxic Brain Infarcts: A Voxel-Based Neuroanatomic Localization Study, 2020, Aug. International Society of Magnetic Resonance in Medicine 5. Chang, K., Singh, P., Li, W., Roth, H., Gupta, S., Ihsani, A, Neumark, N., Bizzo, B.C., Wen, Y., Buch, V., Shah, M., Kitamura, F., Ribeiro, M., Lavor, V., Harouni, A., Compas, C., Tetreault, J., Dogra, P., Cheng, Y., Erdal, S., Gupta, V., White, R., Hashemian, B., Schultz, T., Zhang, M., Qu, L., Rubin, D., McCarthy, A., Yun, M., Sharaf, E., Hoebel, K.V., Patel, J.B., Chen, B., Ko, S., Leibovitz, E., Pisano, E.D., Coombs, L., Xu, D., Dreyer, K.J., Dayan, I., Naidu, R.C., Flores, M., Kalpathy-Cramer, J., “Federated Deep Learning Among Multiple Institutions for Automated Classification of Breast Density,” Society for Imaging Informatics in Medicine Annual Meeting, 2020, June. 6. Torrado-Carvajal, A., Toschi, N., Albrecht D.S., Chang, K., Akeju, O., Kim, M., Edwards R.R., Zhang, Y., Hooker, J.M., Duggento, A., Kalpathy-Cramer, J., Napadow, V., Loggia, M.L., “Evaluation of 18kDa Translocator Protein (TSPO) as an Imaging Marker for Chronic Low Back Pain”. International Association for the Study of Pain World Congress., Aug 2020 7. Coyner AJ, Chen, Campbell JP, Ostmo S, Singh P, Kalpathy-Cramer J, Chiang MF, “Diagnosability of Synthetic Retinal Fundus Images for Plus Disease Detection in Retinopathy of Prematurity”, AMIA Annual Symposium, 2020 8. Gupta S, Singh P, Chang K, Aggarwal M, Arun N, Qu L, Hoebel K, Patel J, Gidwani M, Vaswani A, Rubin DL, Kalpathy-Cramer J, “The unreasonable effectiveness of Batch-Norm statistics in addressing catastrophic forgetting across medical institutions”, Accepted as oral presentation in Machine Learning for Health (ML4H) at NeurIPS 2020 |