

Kilian M. Pohl, Ph.D.

Professor

Department of Psychiatry and Behavioral Sciences

Department of Electrical Engineering (courtesy)

Stanford University

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Palo Alto, CA 94304

Updated 6/8/2026

EDUCATION

Massachusetts Institute of Technology, Cambridge, Massachusetts Ph.D. in Computer Science	09/01 – 05/05
University of Karlsruhe, Karlsruhe, Germany Master of Science in Mathematics, Summa Cum Laude	10/95 – 06/99
University of Massachusetts – Amherst, Amherst, Massachusetts Visiting Graduate Student, Electrical & Computer Engineering	08/96 – 06/97
University of Karlsruhe, Karlsruhe, Germany Bachelor of Science in Mathematics	10/93 – 09/95

PROFESSIONAL EXPERIENCE

Stanford University, Stanford, CA Professor (Research) Dept. of Psychiatry & Behavioral Sciences, School of Medicine (primary) Dept. of Electrical Engineering, School of Engineering (courtesy)	02/24 – present 02/24 – 08/26
Associate Professor (Research) Dept. of Psychiatry & Behavioral Sciences, School of Medicine (primary) Dept. of Electrical Engineering, School of Engineering (courtesy)	03/19 – 01/24 09/23 – 01/24
Consulting Associate Professor, Dept. of Psychiatry & Behavioral Sciences Consulting Assistant Professor, Dept. of Psychiatry & Behavioral Sciences	10/15 – 10/16 10/13 – 10/15
SRI International, Menlo Park, CA Program Director of Biomedical Computing, Center for Health Sciences Program Director, Center for Health Sciences Senior Research Scientist, Center for Health Sciences	10/16 – 02/23 08/14 – 10/16 06/13 – 07/14
University of Pennsylvania, Philadelphia, PA Assistant Professor (Tenure Track), Dept. of Radiology, Bioengineering Graduate Group	07/10 – 06/13
IBM Research - Almaden, San Jose, CA Research Staff Member, Dept. of Computer Science	10/08 – 06/10
Brigham and Women's Hospital, Harvard Medical School, Boston, MA Instructor, Dept. of Radiology Postdoctoral Research Fellow, Dept. of Radiology	11/06 – 09/08 10/05 – 10/06
Isomics, Cambridge, Massachusetts Consultant	10/05 – 06/07
Massachusetts Institute of Technology, Cambridge, MA Postdoctoral Research Affiliate, Dept. of Electrical Engineering & Computer Science Postdoctoral Research Fellow, Dept. of Electrical Engineering & Computer Science Research Associate, Dept. of Electrical Engineering & Computer Science	10/05 – 06/09 06/05 – 09/05 09/01 – 05/05
Propack Data Corporation, Cary, NC Training Manager Technical Consultant	03/00 – 04/01 07/99 – 02/00
University of Karlsruhe, Karlsruhe, Germany Research Assistant, Dept. of Computer Science	01/98 – 06/99

HONORS

Leadership and Professionalism Award, Department of Psychiatry, Stanford	2023
Best Paper Award of the MICCAI Workshop on Predictive Intelligence in Medicine	2022
Runner-up of Elsevier <i>Medical Image Analysis</i> Best Paper Award (1800 submissions)	2021
Creative and Novel Ideas in HIV Research Award, The 20 th International AIDS Conference	2014
Two Top 10 most accessed papers of <i>IEEE Transactions on Medical Image Analysis</i> in December	2012
Top 10 Paper of the 8th International Symposium on Biomedical Imaging (736 submissions)	2011
IBM Research Accomplishment, IBM	2009
Elsevier Medical Image Analysis Best Paper Award (575 submissions)	2007
Student Award, IEEE International Symposium on Biomedical Imaging	2004
Student Travel Award, Tenth Annual Meeting of the Organization for Human Brain Mapping	2004
Summa Cum Laude, Masters, Department of Mathematics, University of Karlsruhe	1999
One-Year US Graduate School Scholarship, State of Baden-Wuerttemberg, Germany	1996

RESEARCH GRANTS**Current**

NIH/NIDA R01 DA057567	(MPI: Pohl & Tapert)	09/22 – 08/27
Title: Interpretable Deep Forecasting of Hazardous Substance Use during High School		
Agency: National Institute of Health		
Role: Contact Principal Investigator		
NIH/NIAAA U24 AA021697	(MPI: Pohl & Pfefferbaum)	12/14 – 06/27
Title: NCANDA: Data Analysis Resource		
Agency: National Institute of Health		
Role: Contact Principal Investigator		
Stanford HAI Google Cloud Credits	(PI: Pohl)	11/25 – 10/26
Title: A Unified Brain Imaging Tokenizer to Accelerate Neuroscience Discovery		
Agency: Stanford Institute for Human-Centered Artificial Intelligence		
Role: Contact Principal Investigator		
Gemini Academic Program	(MPI: Pohl, Peng)	1/26 – 1/27
Title: MRI Synthesis for Advancing Discovery in Neuroscience		
Agency: Google		
Role: Contact Principal Investigator		
NIH/NIAAA R01 AA017347	(Pfefferbaum)	09/18 – 08/28
Title: Tracking HIV Infection & Alcohol Abuse CNS Comorbidity with Neuroimaging		
Agency: National Institute of Health		
Role: Co-Investigator		
2024 HAI Hoffman-Yee Grant	(PI: Adeli)	10/24 – 09/27
Title: A Multidimensional Odyssey into the Human Mind		
Agency: Stanford Institute for Human-Centered Artificial Intelligence (HAI)		
Role: Co-Investigator		
2026 Department Innovator Grants Program (PI: Lahijani)		03/26 – 09/27
Title: Precision Psycho-Oncology – AI-Driven Digital Phenotyping of the Hypoxic Burden as a Novel Therapeutic Target to Treat Psychiatric Distress in Cancer		
Agency: Department of Psychiatry, Stanford		
Role: Co-Investigator		
NIH/NIAAA R01 AA005965	(MPI: Pfefferbaum & Zahr)	04/15 – 04/27
Title: CNS Deficits: Interaction of Age & Alcoholism		
Agency: National Institute of Health		
Role: Co-Investigator		

NIH/NIAAA R01 AA010723 (MPI: Sullivan & Zahr) 08/21 – 06/26
 Title: Alcohol: A Modifiable Risk Factor for Ataxia and Decline in MCI
 Agency: National Institute of Health
 Role: Co-Investigator

Past

NIH/NIMH 75N95023C00013 (PI: Sherman) 09/24 – 08/25
 Title: Data Coordinating Center to Provide Services to Work Collaboratively with the National NeuroHIV Tissue Consortium Clinical Sites to Provide Management and Database Capabilities, Scientific Expertise
 Agency: National Institute of Health
 Role: Principal Investigator of the Subcontract

NIH/NIAAA U24AA021697-13S1 (MPI: Pohl & Pfefferbaum) 07/24 – 06/25
 Title: NCANDA: Data Analysis Resource – Upgrade Computer System
 Agency: National Institute of Health
 Role: Contact Principal Investigator

Stanford HAI Google Cloud Credits (PI: Pohl) 07/24 – 06/25
 Title: Generative AI for Advancing Neuroscience Discovery
 Agency: Stanford Institute for Human-Centered Artificial Intelligence
 Role: Contact Principal Investigator

DGIST Joint Research Project (MPI: Pohl & Adeli) 09/22 – 12/24
 Title: Federated Learning for Multi-Domain Brain Image Analysis
 Agency: Daegu Gyeongbuk Institute of Science & Technology, South Korea
 Role: Contact Principal Investigator

NIH/NIAAA U24AA021697-12S1 (PI: Pohl) 09/23 – 06/24
 Title: NCANDA: Data Analysis Resource - Uploading Legacy Data to NDA
 Agency: National Institute of Health
 Role: Principal Investigator

NIH/NIMH R01 MH113406 (MPI: Valcour & Pohl) 05/17 – 01/24
 Title: Machine learning to distinguish HAND from Alzheimer's disease in HIV over age 60
 Agency: National Institute of Health
 Role: Multiple Principal Investigator

2022 HAI-Google Cloud Credits Award (MPI: Pohl & Zhao) 07/22 – 09/23
 Title: Deep Learning Methods for Multi-Modal Neuroimage Decoding
 Agency: Institute for Human-Centered Artificial Intelligence, Stanford
 Role: Multiple Principal Investigator (Administrative)

NIH/NIMH R44 MH119022 (PI: Chaudhary) 06/20 – 05/23
 Title: MIQA: A Highly Scalable and Customizable Platform for Medical Image Quality Assessment – Phase II
 Agency: National Institute of Health
 Role: Principal Investigator of the Subcontract

2021 HAI-Google Cloud Credits Award (PI: Pohl) 07/21 – 06/22
 Title: Interpretable and Unbiased Deep Learning for Neuroimaging Applications
 Agency: Institute for Human-Centered Artificial Intelligence, Stanford
 Role: Principal Investigator

NIH/NIAAA U01AA021696-09S1 (MPI: Baker & Colrain) 09/20 – 06/22
 Title: Impact of the Coronavirus Pandemic on Alcohol Consumption and Mental Health in Young People
 Agency: National Institute of Health
 Role: Principal Investigator of the Subcontract

NIH/NIAAA U01 AA013521 (MPI: Pfefferbaum & Zahr) 02/18 – 01/22
 Title: Neuroimaging of Alcohol-Induced Neuroadaptation: Translation from Animals to Humans
 Agency: National Institute of Health
 Role: Co-Investigator

NIH NIAAA R01 AA010723	(PI: Sullivan)	03/19 – 08/21
Title: Cerebellar Structure and Function in Alcoholism		
Agency: National Institute of Health		
Role: Senior Research Scientist		
2020 HAI-AWS Cloud Credits Award	(PI: Pohl)	04/20 – 04/21
Title: Develop technologies advancing nonscientific discovery of disease-specific phenotypes		
Agency: Institute for Human-Centered Artificial Intelligence, Stanford		
Role: Principal Investigator		
NIH/NHLBI R01 HL127661	(MPI: Axel & Metaxas & Pohl)	04/15 – 03/20
Title: Innovative MRI-based Characterization of Cardiac Dyssynchrony		
Agency: National Institute of Health		
Role: Multiple Principal Investigator		
NIH/NIAAA U24 AA021697-07S1	(MPI: Pfefferbaum & Pohl)	07/18 – 06/19
Title: NCANDA Administrative Supplement for Clinical Readings and Analysis		
Agency: National Institute of Health		
Role: Multiple Principal Investigator		
NIH NIDA/NCI U24 DA041123	(PI: Dale)	09/15 – 12/19
Title: ABCD-USA Consortium: Data Analysis Center		
Agency: National Institute of Health		
Role: Multiple Principal Investigator of the Subcontract		
NIH/NIMH R43 MH119022	(PI: Chaudhary)	09/18 – 08/19
Title: MIQA: A Highly Scalable and Customizable Platform for Medical Image Quality Assessment		
Agency: National Institute of Health		
Role: Principal Investigator of the Subcontract		
Creative and Novel Ideas in HIV Research	(PI: Pohl)	06/14 – 11/17
Title: Creating Maps of 4D Brain Images to Unravel Dementia Heterogeneity of Aging HIV Population		
Agency: National Institute of Health (NIAID & OAR), International AIDS Society		
Role: Principal Investigator		
NIH/NIAAA/OD/NABIB U01 AA021697-04S1	(PI: Pohl)	07/15 – 06/17
Title: Supplement to N-CANDA: Data Analysis		
Agency: National Institute of Health		
Role: Principal Investigator		
NIH/NIAAA R01 AA012388	(MPI: Pfefferbaum & Sullivan)	06/13 – 01/16
Title: Neuroimaging of Connectivity in Alcoholism		
Agency: National Institute of Health		
Role: Co-investigator		
Translational Biomedical Imaging Center Pilot Grant	(PI: Pohl)	02/12 – 06/13
Title: Automatic 4D Analysis of Cardiac MR Scans		
Agency: Institute for Translational Medicine and Therapeutics		
Role: Principal Investigator		
NIH/NIA R01AG014971-10A1	(PI: Davatzikos)	09/11 – 06/13
Title: Computational Neuroanatomy of Aging and AD via Pattern Analysis		
Agency: National Institute of Health		
Role: Co-Investigator		
NIH/NIBIB R01 EB009234-01A1	(PI: Davatzikos)	07/10 – 06/13
Title: Computer Analysis of Brain Vascular Lesions in MRI: Evaluating Longitudinal Change		
Agency: National Institute of Health		
Role: Co-Investigator		
NIH/NCRR P41RR013218-12S1	(PI: Kikinis)	09/09 – 08/11
Title: NAC ARRA Supplement / Image Analysis of Personalized Medicine		
Agency: National Institute of Health		
Role: Principal Investigator of Subcontract		

NIH/NCRR P41 RR013218	(PI: Kikinis)	10/05 – 09/08
Title: Neuroimaging Analysis Center		
Agency: National Institute of Health		
Role: Co-Investigator		
Brain Science Foundation Grant	(PI: Pohl)	10/07 – 09/08
Title: Meningioma Tracking Project		
Agency: The Brain Science Foundation		
Role: Principal Investigator		
NIH/NIAAA R01 AA016748	(PI: Daunais)	04/07 – 06/10
04/07 – 09/08		
Title: Measuring Alcohol and Stress Interactions with Structural and Perfusion MRI		
Agency: National Institute of Health		
Role: Investigator		
Brain Science Foundation Grant	(PI: Kikinis)	10/05 – 09/07
Title: Meningioma Tracking Project		
Agency: The Brain Science Foundation		
Role: Co-Investigator		

PEER-REVIEWED FULL-LENGTH JOURNAL ARTICLES (N=201)

Note: Per Stanford requirements, I have denoted my role from the past 5 years on each report where I am not first or senior author.

In Press

- Li M, Liu R, Shi Z, Han M, Yao L, Li Z, Chang X, **Pohl KM***, Islam Md T, Xing L: Advancing In-Context Learning for Efficient and Stable Medical Report Generation, *IEEE Transactions on Pattern Analysis and Machine Intelligence*.
* *Corresponding author*
- González C, Nguyen-Louie TT, Sullivan EV, Pfefferbaum A, Klo J, Dehoney J, Zhao Q, Adeli E, Tapert SF, **Pohl KM**: Divergent Pathways Taken in Adolescence Predict Embracing or Resisting Moderate to Heavy Drinking in Young Adulthood, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*.
- Li B, Peng W, Li M, Adeli E, **Pohl KM**: Integrating Anatomical Priors into a Causal Diffusion Model, *IEEE Transactions on Medical Imaging*.
- Wang Y, Müller-Oehring EM, Sassoon SA, Pfefferbaum A, Sullivan EV, Zhao Q, **Pohl KM**: Using Deep Learning to Identify Brain Networks Mediating Cognitive and Motor Impairments in Alcohol Use Disorder, *Translational Psychiatry*.
- Li M, Kim E, Zhao Y, Adeli E, **Pohl KM**: Modality-Aware and Anatomical Vector-Quantized Autoencoding for Multimodal Healthy Brain MRI, *Findings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*.
- Kung G, Abbassi M, Blank C, Zhang J, Wang A, Ostmeier S, Chaudhari A, **Pohl KM***, Adeli E: Diffusion MRI Transformer with a Diffusion Space Rotary Positional Embedding (D-RoPE), *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*.
* *Provided critical revision of manuscript for important intellectual content*
- Nerrise F, Yin L, Abassi MH, **Pohl KM***, Adeli E: GeoSAE: Geometric Prior-Guided Layer-Wise Sparse Autoencoder Annotation of Brain MRI Foundation Models, Modality-Aware and Anatomical Vector-Quantized Autoencoding for Multimodal Healthy Brain MRI, *Conference on Computer Vision and Pattern Recognition 2026 Workshop CV4Clinical*.
* *Provided critical revision of manuscript for important intellectual content*
- Pfefferbaum A, Sullivan EV, Saranathan M, **Pohl KM***, Bischoff-Grethe A, Stoner SA, Riley EP: Thalamic Nuclear Volumes in Fetal Alcohol Spectrum Disorders: From Adolescence to Middle-Age 20 Years Later, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*.
* *Processed data and provided critical revision of manuscript for important intellectual content*

9. Gonzalez MR, Brumback T, Wickershiem MK, Sullivan EV, Pfefferbaum A, Clark DB, Goldston DB, Meloy MJ, Naber F, Müller-Oehring EM, Morales AM, Baker FC, Nooner KB, Nagel BJ, **Pohl KM***, Sher KJ, Brown SA, Tapert SF, Thompson WK: Structural Brain Recovery Following Reductions in Adolescent and Young Adult Binge Drinking: A Longitudinal NCANDA Study, *Developmental Cognitive Neuroscience*.

* *Processed data and provided critical revision of manuscript for important intellectual content*

Published

1. Bosschieter T, Franc L, Wolk J, Wu Y, Mehta B, Dehoney J, Kiss O, Baker FC, Zhao Q, Caruana E, **Pohl KM**: The Most Important Features in Generalized Additive Models Might Be Groups of Features, *Scientific Reports*, doi.org/10.1038/s41598-026-43928-4, 2026
2. Zhao Q, Milecki L, Kuceyeski A, Grosenick L, Brumback T, Pfefferbaum A, Sullivan EV, **Pohl KM**: Socioemotional and Executive Control Mismatch in Adolescence Heightens Risks for Initiating Drinking, *JAMA Network Open*, 8(9), e2531378, 2025
3. Kan M, Chikontwe P, Kim S, Jin KH, Adeli E, **Pohl KM***, Park SH: Efficient One-shot Federated Learning on Medical Data using Knowledge Distillation with Image Synthesis and Client Model Adaptation, *Medical Image Analysis*, 105, 103714, 2025
* *Provided critical revision of manuscript for important intellectual content*
4. Wang Y, Fraser R, Aguinaldo L, Nguyen-Louie TT, Baker FC, Tapert SF, **Pohl KM**: Multi-level Patterns Predict Cannabis Use Onset among Youth, *Developmental Cognitive Neuroscience*, Volume 76, 101639, 2025
5. Schilling L, Singleton SP, Tozlu C, Hédo M, Zhao Q, **Pohl KM***, Jamison K, Kuceyeski A: Sex-specific differences in brain activity dynamics of youth with a family history of substance use disorder, *Nature Mental Health*, 2025, doi.org/10.1038/s44220-025-00523-2
* *Processed data and provided critical revision of manuscript for important intellectual content*
6. Waddell JT, Brumback T, Baker FC, Cheek S, Clark DB, Goldston DB, Grove JL, Nagel BJ, Nooner, KB, Pfefferbaum A, **Pohl KM***, Sullivan EV, Tapert SF, Thompson WJ, Brown SA: Mutual age-varying influences of binge drinking and cannabis use during emerging adulthood in the NCANDA cohort. *Alcohol: Clinical and Experimental Research*, 49, 2239–2249, 2025
* *Processed data and provided critical revision of manuscript for important intellectual content*
7. Peng W, Xia T, De Sousa Ribeiro F, Bosschieter T, Adeli E, Zhao Q, Glocker B, **Pohl KM**: Latent Causal Modeling for 3D Brain MRI Counterfactuals, *Deep Generative Models*, Lecture Notes in Computer Science, vol 16128, pp 192–201, 2025.
8. Sun P, Peng W, Li LY, Wang Y, **Pohl KM**: Evaluation of 3D Counterfactual Brain MRI Generation, *Deep Generative Models*, Lecture Notes in Computer Science, vol 16128, pp 46-56, 2025.
9. Wang AQ, Huang F, Trang B, Peng W, Abbasi M, **Pohl KM***, Sabuncu M, Adeli E: Generating Novel Brain Morphology by Deforming Learned Templates, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, vol 15961, pp 207–217, 2025
* *Provided critical revision of manuscript for important intellectual content*
10. Sullivan E, Sassoon S, Pohl KM*, Saranathan M, Zahr N, Pfefferbaum A: Physiological and Brain Mechanisms Contributing to Postural Tremor in Aging with and without Alcohol Use Disorder, *Translational Psychiatry*, 15, 338, 2025
* *Processed data and provided critical revision of manuscript for important intellectual content*
11. Wilson S, Milicic A, Javandel S, Yballa C, Milanini B, **Pohl KM***, Paul R, Valcour V: Amyloid- β PET Positivity Among Cognitively Impaired People with HIV Over Age 60, *Journal of Acquired Immune Deficiency Syndromes*, 99(5):p 463-467, 2025
* *Provided critical revision of manuscript for important intellectual content*
12. Shah Y, Gonzalez C, Abbasi M, Zhao Q, **Pohl KM***, Adeli E: Confounder-Free Continual Learning via Recursive Feature Normalization, *Proceedings of Machine Learning Research*, 267: 54112-54142, 2025
* *Provided critical revision of manuscript for important intellectual content*
13. Sullivan E, Sassoon S, **Pohl KM***, Saranathan M, Zahr N, Pfefferbaum A: Physiological and Brain Mechanisms Contributing to Postural Tremor in Aging with and without Alcohol Use Disorder, *Translational Psychiatry*, 15, 338, 2025
* *Processed data and provided critical revision of manuscript for important intellectual content*

14. Jafrasteh B, Adeli E, **Pohl KM***, Kuceyeski A, Sabuncu MR, Zhao Q: Statistical Variability in Comparing Accuracy of Neuroimaging Based Classification Models via Cross Validation, *Scientific Reports*, 15, 28745, 2025
* *Provided critical revision of manuscript for important intellectual content*
15. Kim S, Park H, Chikontwe P, Kang M, Jin KH, Adeli E, **Pohl KM***, Park SH: Communication Efficient Federated Learning for Multi-Organ Segmentation via Knowledge Distillation with Image Synthesis, *IEEE Transactions on Medical Imaging*, 44(5), pp 2079-2092, 2025
* *Guided analysis and provided critical revision of manuscript for important intellectual content*
16. Peng W, Bosschieter T, Ouyang J, Paul R, Sullivan EV, Pfefferbaum A, Adeli E, Zhao Q, **Pohl KM**: Metadata-Conditioned Generative Models to Synthesize Anatomically-Plausible 3D Brain MRIs, *Medical Image Analysis*, 98, 103325, 2024.
17. Kim S, Park H, Kang M, Jin KH, Adeli E, **Pohl KM***, Park SH: Federated Learning with Knowledge Distillation for Multi-Organ Segmentation with Partially Labeled Datasets, *Medical Image Analysis*, 95, 103156, 2024.
* *Guided analysis and provided critical revision of manuscript for important intellectual content*
18. Wang Y, Peng W, Zhang Y, Pfefferbaum A, Sullivan E, Adeli E, Zhao Q, **Pohl KM**: Brain-Cognition Fingerprinting via Graph-GCCA with Contrastive Learning, *Machine Learning in Clinical Neuroimaging*, Lecture Notes in Computer Science, vol 15266, pp 24–34, 2024
19. Endo M, Nerrise F, Zhao Q, Sullivan EV, F-F Lie, Henderson VW, **Pohl KM***, Poston KL, Adeli E: Data-Driven Discovery of Movement-Linked Heterogeneity in Neurodegenerative Disease, *Nature Machine Intelligence*, 6, pp 1034–1045, 2024.
* *Provided critical revision of manuscript for important intellectual content*
20. Manasseh-Lewis J, Godoy F, Peng W, Paul R, Adeli E, **Pohl KM**: Neurocognitive Latent Space Regularization for Multi-Label Diagnosis from MRI, *Predictive Intelligence in Medicine*, Lecture Notes in Computer Science, vol 15155, pp 185–195, 2024
21. Paschali M, Zhao Q, Pfefferbaum A, Sullivan EV, **Pohl KM**: Multi-domain Predictors of Grip Strength Differentiate Individuals with and without Alcohol Use Disorder, *Addiction Biology*, 29(11), e70007, 2024
22. Wu J, Peng W, Li B, **Pohl KM**: Evaluating the Quality of Brain MRI Generators, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 15010, pp 297–307, 2024
23. Ouyang J, Zhao Q, Adeli E, Zaharchuk G, **Pohl KM**: SOM2LM: Self-Organized Multi-Modal Longitudinal Maps, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, vol 15002, pp 400–410, 2024
24. Gonzales C, Miraoui Y, Fan Y, Adeli E, **Pohl KM**: SpaRG - Sparsely Reconstructed Graphs for Generalizable fMRI Analysis, *Machine Learning in Clinical Neuroimaging*, *Lecture Notes in Computer Science*, vol 15266, pp 46–56, 2024
25. Paschali M, Jiang Y, Siegel S, Gonzales C, **Pohl KM***, Chaudhari A, Zhao Q: Spectral Graph Sample Weighting for Interpretable Sub-cohort Analysis in Predictive Models for Neuroimaging, *Predictive Intelligence in Medicine*, Lecture Notes in Computer Science, 15155, pp. 24-34, 2024
* *Processed data and provided critical revision of manuscript for important intellectual content*
26. Pfefferbaum A, Zahr NM, Saranathan M, Sassoon SA, Fama R, **Pohl KM***, Sullivan EV: Aging, HIV infection, and alcohol exert synergist effects on regional thalamic volumes resulting in functional impairment, *NeuroImage: Clinical*, vol 44, 103684, 2024.
* *Processed data and provided critical revision of manuscript for important intellectual content*
27. Zhao Q, Paschali M, Dehoney J, Baker F, de Zambottib M, De Bellis M, Goldston D, Nooner K, Clark D, Luna B, Nagel BJ, Brown S, Tapert S, Eberson S, Thompson W, Pfefferbaum A, Sullivan EV, **Pohl KM**: Identifying High School Risk Factors that Forecast Heavy Drinking Onset in Understudied Young Adults, *Developmental Cognitive Neuroscience*, vol 68, 101413, 2024
28. Nguyen-Louie TT, Thompson WK, Sullivan EV, Pfefferbaum A, Gonzalez C, Eberson-Shumate SC, Wade NE, Clark DB, Nagel BJ, Baker FC, Luna B, Nooner KB, de Zambotti M, Goldston DB, Knutson B, **Pohl KM***, Tapert SF: Multi-Dimensional Predictors of First Drinking Initiation and Regular Drinking Onset in Adolescence: A Prospective Longitudinal Study, *Developmental Cognitive Neuroscience*, 69, 101424, 2024
* Corresponding author

29. Sullivan EV, Zahr NM, Zhao Q, **Pohl KM***, Sassoos SA, Pfefferbaum A: Contributions of Cerebral White Matter Hyperintensities to Postural Instability in Aging with and without Alcohol Use Disorder, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, vol 9(10), pp. 999-1009, 2024
* Conducted data analysis and provided critical revision of manuscript for important intellectual content
30. Fama R, Sassoos SA, Müller-Oehring EM, Saranathan M, **Pohl KM***, Zahr NM, Pfefferbaum A, Sullivan EV: Anterior and Posterior Thalamic Volumes Differentially Correlate with Memory, Attention, and Motor Processes in HIV infection and Alcohol Use Disorder Comorbidity, *Brain Research Bulletin*, 217, 111085, 2024
* Processed data and provided critical revision of manuscript for important intellectual content
31. Chirokoff V, **Pohl KM***, Berthoz, Fatseas M, Misdrahi D, Serre F, Auriacombe M, Pfefferbaum A, Sullivan EV, Chanraud S: Multi-level prediction of substance use: interaction of white matter integrity, resting-state connectivity, and inhibitory control measured repeatedly in every-day life, *Addiction Biology*, 29(5), e13400, 2024.
* Conducted data analysis and provided critical revision of manuscript for important intellectual content
32. Pfefferbaum A, Zhao Q., **Pohl KM***, Sassoos SA, Zahr NM, Sullivan EV: Age-Accelerated Increase of White Matter Hyperintensity Volumes is Exacerbated by Heavy Alcohol Use in People Living with HIV, *Biological Psychiatry*, 95(3), pp 231-244, 2024
* Conducted data analysis and provided critical revision of manuscript for important intellectual content
33. Sullivan EV, Zahr NM, Zhao Q, **Pohl KM***, Sassoos SA, Pfefferbaum A: Contributions of Cerebral White Matter Hyperintensities, Age, and Pedal Perception to Postural Sway in People Living with HIV, *AIDS*, 38(8), pp 1153-62, 2024
* Conducted data analysis and provided critical revision of manuscript for important intellectual content
34. Kim S, An S, Chikontwe P, Kang M, Adeli E, **Pohl KM***, Park, S: Few Shot Part Segmentation Reveals Compositional Logic for Industrial Anomaly Detection, *Proceedings of the AAAI Conference on Artificial Intelligence*, 38(8), pp 8591-8599, 2024
* Provided critical revision of manuscript for important intellectual content
35. Kang M, Kim S, Jin KH, Adeli E, **Pohl KM***, Park SH: FedNN: Federated Learning on Concept Drift Data using Weight and Adaptive Group Normalizations, *Pattern Recognition*, 149, 110230, 2024.
* Provided critical revision of manuscript for important intellectual content
36. Sassoos S, Fama R, **Pohl KM***, Pfefferbaum A, Sullivan EV: Frontal cortical volume deficits as enduring evidence of childhood abuse in community adults with AUD and HIV infection comorbidity, *Neurobiology of Stress*, 29, 100608, 2024
* Conducted data analysis and provided critical revision of manuscript for important intellectual content
37. Ottino-González J, Cupertino RB, Cao Z, Hahn S, Pancholi D, Albaugh M, Brumback T, Baker FC, Brown SA, Clark DB, de Zambotti M, Goldston DB, Luna B, Nagel BJ, Nooner KB, **Pohl KM***, Tapert SF, Thompson WK, Jernigan TL, Conrod P, Mackey S, Garavan H: Brain Structural Covariance Network Features are Robust Markers of Early Heavy Alcohol Use, *Addiction*, 119(1), pp 113–124, 2024.
* Provided critical revision of manuscript for important intellectual content
38. Pfefferbaum A, Sullivan EV, **Pohl KM***, Bischoff-Grethe A, Stoner SA, Moore EM, Riley EP: Brain Volume in Fetal Alcohol Spectrum Disorders Over a 20-Year Span, *JAMA Network Open*, 6(11), e2343618, 2023.
* Conducted data analysis and provided critical revision of manuscript for important intellectual content
39. Ouyang J, Zhao Q, Adeli E, Peng W, Zaharchuk G, **Pohl KM**: LSOR: Longitudinally-Consistent Self-Organized Representation Learning, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 14220, pp 279–289, 2023.
40. Peng W, Adeli E, Bosschieter T, Park SH, Zhao Q, **Pohl KM**: Generating Realistic Brain MRIs via a Conditional Diffusion Probabilistic Model, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 14227, pp 14–24, 2023.
41. Wang Y, Peng W, Tapert SF, Zhao Q, **Pohl KM**: Imputing Brain Measurements Across Data Sets via Graph Neural Networks, *Predictive Intelligence in Medicine*, Springer, Lecture Notes in Computer Science, 14277, pp 172–183, 2023.

42. Kang M, Chikontwe P, Soopil K, Jin KH, Adeli E, **Pohl KM***, Park SH: One-shot Federated Learning on Medical Data using Knowledge Distillation with Image Synthesis and Client Model Adaptation, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 14221, pp. 521–531, 2023.
* *Provided critical revision of manuscript for important intellectual content*
43. Nerrise F, Zhao Q, Poston K, **Pohl KM***, Adeli E: An Explainable Geometric-Weighted Graph Attention Network for Identifying Functional Networks Associated with Gait Impairment, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 14221, pp 723–733, 2023.
* *Provided critical revision of manuscript for important intellectual content*
44. Piekarski J, Zahr NM, Zhao Q, Ferizi U, **Pohl KM***, Sullivan EV, Pfefferbaum A: White matter microstructural integrity continues to develop from adolescence to young adulthood in mice and humans: Same phenotype, different mechanism, *Neuroimage: Reports*, 3(3), 100179, 2023
* *Conducted data analysis and provided critical revision of manuscript for important intellectual content*
45. Alzueta E, Podhajsky S, Zhao Q, Tapert SF, Thompson WK, de Zambotti M, Yuksel D, Kiss O, Wang R, Volpe L, Prouty D, Colrain IM, Clark DB, Goldston DB, Nooner KB, De Bellis MD, Brown SA, Nagel BJ, Pfefferbaum A, Sullivan EV, Baker FC, **Pohl KM**: Risk for Depression Tripled during COVID-19 Pandemic in Emerging Adults Followed for the Last 8 Years, *Psychological Medicine*, 53(5), pp. 2156–63, 2023. doi:10.1017/S0033291721004062.
46. Ferizi U, Müller-Oehring EM, Peterson ET, **Pohl KM**: The distortions of the free water model for diffusion MRI data when assuming single compartment relaxometry and proton density, *Physics in Medicine and Biology*, 68, 05NT01, 2023.
47. Bolzenius J, Sacdalan C, Ndhlovu L, Sailasuta N, Trautmann L, Tipsuk S, Crowell T, Suttichom D, Colby D, Phanuphak N, Chan P, Premeaux T, Kroon E, Vasani S, Hsu D, Valcour V, Ananworanich J, Robb M, Ake J, **Pohl KM***, Sriplienchan S, Spudich S, Paul R: Brain Volumetrics Differ by Fiebig Stage in Acute HIV Infection, *AIDS*, 37(6), pp. 861–9, 2023.
* *Provided critical revision of manuscript for important intellectual content*
48. Sullivan EV, Zahr NM, Sassoos SA, **Pohl, KM***, Pfefferbaum A: Postural instability in HIV infection: relation to central and peripheral nervous system markers, *AIDS*, 37(7), pp 1085–96, 2023.
* *Conducted data analysis and provided critical revision of manuscript for important intellectual content*
49. Fama R, Müller-Oehring EM, Levine TF, Sullivan EV, Sassoos SA, Asok P, Brontë-Stewart HM, Poston KL, **Pohl KM***, Pfefferbaum A, Schulte T: Episodic memory deficit in HIV infection: common phenotype with Parkinson’s disease, different neural substrates. *Brain Structure and Function*, 228(3–4), pp. 845–58, 2023.
* *Conducted data analysis and provided critical revision of manuscript for important intellectual content*
50. Zhang J, Zhao Q, Adeli E, Pfefferbaum A, Sullivan EV, Paul R, Valcour V, **Pohl KM**: Multi-Label, Multi-Domain Learning Identifies Compounding Effects of HIV and Cognitive Impairment, *Medical Image Analysis*, vol 75, 102246, 2022.
51. Ouyang J, Zhao Q, Adeli E, Sullivan EV, Pfefferbaum A, Zaharchuk G, **Pohl KM**: Self-supervised Learning of Neighborhood Embedding for Longitudinal MRI, *Medical Image Analysis*, 82, 102571, 2022.
52. Ouyang J, Zhao Q, Adeli E, Zaharchuk G, **Pohl KM**: Disentangling Normal Aging from Severity of Disease via Weak Supervision on Longitudinal MRI, *IEEE Transactions on Medical Imaging*, 41(10), pp. 2558–69, 2022.
53. Pfefferbaum A, Sullivan EV, Zahr NM, **Pohl KM***, Saranathan M: Multi-atlas thalamic nuclei segmentation on standard T1-weighted MRI with application to normal aging, *Human Brain Mapping*, 1–17, <https://doi.org/10.1002/hbm.26088>, 2022.
* *Provided critical revision of manuscript for important intellectual content*
54. Honnorat N, Fama R, Müller-Oehring EM, Pfefferbaum A, Sullivan EV, **Pohl KM**: Alcohol Use Disorder and its Comorbidity with HIV Infection Disrupt Anterior Cingulate Cortex Functional Connectivity, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 7(11), pp. 1127–36, 2022.
55. Paschali M, Zhao Q, Adeli E, **Pohl KM**: Bridging the Gap between Deep Learning and Hypothesis-Driven Analysis via Permutation Testing, *Predictive Intelligence in Medicine*, Springer, Lecture Notes in Computer Science, 13564, pp 13–23, 2022.

56. Li Y, Wei Q, Adeli E, **Pohl KM***, Zhao Q: Joint Graph Convolution for Analyzing Brain Structural and Functional Connectome, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 13431, pp 231–40, 2022.
* *Conducted data analysis and interpretation*
57. Endo M, Poston K, Sullivan E, Fei-Fei L, **Pohl KM***, Adeli E: GaitForeMer: Self-Supervised Pre-Training of Transformers via Human Motion Forecasting for Few-Shot Gait Impairment Severity Estimation, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 13438, pp 130–39, 2022.
* *Provided critical revision of manuscript for important intellectual content*
58. Singla A, Zhao Q, Do DK, Zhou Y, **Pohl KM***, Adeli E: Multiple Instance Neuroimage Transformer, *Predictive Intelligence in Medicine*, Lecture Notes in Computer Science, 13564, pp 36–48, 2022.
* *Provided critical revision of manuscript for important intellectual content*
59. Vento A, Zhao Q, Paul R, **Pohl KM***, Adeli E: A Penalty Approach for Normalizing Feature Distributions to Build Confounder-Free Models, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 13433, pp 387–97, 2022
* *Provided critical revision of manuscript for important intellectual content*
60. Sullivan EV, Thompson WK, Brumback T, Prouty D, Tapert SF, Brown SA, De Bellis MD, Nooner KB, Baker FC, Colrain IM, Clark DB, Nagel BJ, **Pohl KM***, Pfefferbaum A: Prior Test Experience Confounds Longitudinal Tracking of Adolescent Cognitive and Motor Development, *BMC Medical Research Methodology*, 22:177, 2022.
* *Conducted data analysis and interpretation*
61. Paschali M, Kiss O, Zhao Q, Adeli E, Podhajsky S, Müller-Oehring EM, Gotlib IH, **Pohl KM***, Baker FC: Detecting Negative Valence Symptoms in Adolescents based on Longitudinal Self-Reports and Behavioral Assessments, *Journal of Affective Disorders*, vol 312, pp 30-38, 2022
* *Corresponding author*
62. Pelham WE, Yuksel D, Baker FC, Tapert SF, **Pohl KM***, Thompson, WK, Podhajsky S, Reuter C, Zhao Q, Ebersson-Shumate SC, Clark DB, Goldston DB, Nagel BJ, Nooner KB, Brown SA: Did the acute impact of the COVID-19 pandemic on drinking or nicotine use persist? Evidence from a cohort of emerging adults followed for up to nine years. *Addictive Behaviors*, 131, 107313, 2022.
* *Provided critical revision of manuscript for important intellectual content*
63. Infante MA, Ebersson SC, Zhang Y, Brumback T, Brown SA, Colrain IM, Baker FC, Clark DB, De Bellis M, Goldston D, Nagel BJ, Nooner KB, Zhao Q, **Pohl KM***, Sullivan EV, Pfefferbaum A, Tapert SF, Thompson WK: Adolescent binge drinking is associated with accelerated decline of gray matter volume, *Cerebral Cortex*, 32(12), pp. 2611-20, 2022.
* *Conducted data analysis and interpretation*
64. Zhao Q, Wang K, Kiss O, Yuksel D, De Zambotti M, Clark DB, Goldston D, Nooner KB, Brown SA, Tapert SF, Thompson WK, Nagel BJ, Pfefferbaum A, Sullivan EV, **Pohl KM***, Baker FC: Earlier Bedtime and Effective Coping Skills Predict a Return to Low-Risk of Depression in Young Adults during the COVID-19 Pandemic, *International Journal of Environmental Research and Public Health*, 19(16), 10300, 2022.
* *Corresponding author*
65. Kiss O, Alzueta E, Yuksel D, **Pohl KM***, de Zambotti M, Müller-Oehring EM, Prouty D, Durley I, Pelham III WE, McCabe JC, Gonzalez MR, Brown SA, Wade NE, Marshall AT, Sowell ER, Breslin FJ, Lisdahl KM, Dick AS, Sheth CS, McCandliss BD, Guillaume MJ, Van Rinsveld VA, Dowling GJ, Tapert SF, Baker FC: The pandemic's toll on young adolescents: Prevention and intervention targets to preserve their mental health, *Journal of Adolescent Health*, 70(3), pp. 387-395, 2022.
* *Provided critical revision of manuscript for important intellectual content*
66. Lannoy S, Pfefferbaum A, Le Berre A-P, Thompson WT, Brumback T, Schulte T, **Pohl KM***, De Bellis MD, Nooner KB, Baker FC, Prouty D, Colrain IM, Nagel BJ, Brown SA, Clark DB, Tapert SF, Sullivan EV, Müller-Oehring EM: Growth trajectories of cognitive and motor control in adolescence: How much is development and how much is practice?, *Neuropsychology*, 36(1), pp 44-54, 2022.
* *Conducted data analysis and interpretation*
67. Zhao Q, Liu Z, Adeli E, **Pohl KM**: Longitudinal Self-Supervised Learning, *Medical Image Analysis*, 71, 102051, 2021.

68. Lu M, Zhao Q, Poston KL, Sullivan EV, Pfefferbaum A, Shahid M, Katz M, Kouhsari LM, Schulman K, Milstein A, Niebles JC, Henderson V, **Pohl KM***, Li FF, Adeli E: Quantifying Parkinson's Disease Motor Severity Under Uncertainty Using MDS-UPDRS Videos, *Medical Image Analysis*, 73, 102179, 2021.
* Conducted interpretation
69. Zhao Q, Sullivan EV, Honnorat N, Adeli E, Podhajsky S, De Bellis MD, Voyvodic J, Nooner KB, Baker FC, Colrain IM, Tapert SF, Brown SA, Thompson WK, Nagel BJ, Clark DB, Pfefferbaum A, **Pohl KM**: Association of Heavy Drinking with Deviant Fiber Tract Development in Frontal Brain Systems in Adolescents, *JAMA Psychiatry*, 78(4), pp. 407 – 415, 2021.
70. Fama R, Le Berre A-P, Sassoon S, Zahr NM, **Pohl KM***, Pfefferbaum A, Sullivan EV: Memory Impairment in Alcohol Use Disorder is Associated with Regional Frontal Brain Volumes, *Drug and Alcohol Dependence*, Volume 228, 109058, 2021.
* Conducted data analysis and interpretation
71. Zhao Q, Adeli E, **Pohl KM**: Longitudinal Correlation Analysis for Decoding Multi-Modal Brain Development, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, vol 12907, pp 400-409, 2021.
72. Ouyang J, Zhao Q, Adeli E, Sullivan EV, Pfefferbaum A, Zaharchuk G, **Pohl KM**: Self-Supervised Longitudinal Neighbourhood Embedding, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, vol 12902, pp 80-89, 2021.
73. Butskova A, Juhl R, Zukic D, Chaudhary A, **Pohl KM***, Zhao Q, Adversarial Bayesian Optimization for Quantifying Motion Artifact within MRI, *PRedictive Intelligence in MEDicine (PRIME)*, Lecture Notes in Computer Science, vol 12928, pp 83-92, 2021.
* Conducted data analysis and interpretation
74. Lu M, Zhao Q, Zhang J, **Pohl KM***, Li FF, Niebles JC, Adeli E: Metadata Normalization, *Computer Vision and Pattern Recognition*, pp. 10917-10927, 2021.
* Conducted data analysis and interpretation
75. Liu Z, Adeli E, **Pohl KM***, Zhao Q: Going Beyond Saliency Maps: Training Deep Models to Interpret Deep Models, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, vol 12729, pp. 71-82, 2021.
* Conducted data analysis and interpretation
76. Ouyang J, Adeli E, **Pohl KM***, Zhao Q, Zaharchuk G: Representation Disentanglement for Multi-modal MR Analysis, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, vol 12729, pp. 321-333, 2021.
* Conducted data analysis and interpretation
77. Zhao Q, Sullivan EV, Müller-Oehring E, Honnorat N, Adeli E, Podhajsky S, Baker FC, Colrain IM, Prouty D, Tapert SF, Brown SA, Meloy MJ, Brumback T, Nagel BJ, Morales AJ, Clark DB, Luna B, De Bellis MD, Nooner KB, Voyvodic JT, Pfefferbaum A, **Pohl KM**: Adolescent Alcohol Use Disrupts Functional Neurodevelopment in Sensation Seeking Girls, *Addiction Biology*, 26(2), e12914, 2021.
78. Zahr NM, **Pohl KM***, Kwong A, Sullivan EV, Pfefferbaum A: Preliminary Evidence for a Relationship between Elevated Plasma TNF α and Smaller Subcortical White Matter Volume in HCV Infection Irrespective of HIV or AUD Comorbidity, *International Journal of Molecular Sciences*, 22(9), 4953, 2021.
* Conducted data analysis and interpretation
79. Ouyang J, Zhao Q, Sullivan EV, Pfefferbaum A, Tapert SF, Adeli E, **Pohl KM**: Longitudinal Pooling & Consistency Regularization to Model Disease Progression from MRIs, *IEEE Journal of Biomedical and Health Informatics*, 25(6), pp. 2082-2092, 2021.
80. Sullivan EV, Zhao Q, **Pohl KM***, Zahr NM, Pfefferbaum A: Attenuated Cerebral Blood Flow in Frontolimbic and Insular Cortices in Alcohol Use Disorder: Relation to Working Memory, *Journal of Psychiatric Research*, 136, pp. 140 -148, 2021.
* Conducted data analysis and interpretation
81. Zahr NM, **Pohl KM***, Sullivan EV, Pfefferbaum A: Age Differences in Brain Structural and Metabolic Responses to Binge Ethanol Exposure in Fisher 344 Rats, *Neuropharmacology*, 46(2), pp. 368-379, 2021.
* Conducted data analysis and interpretation

82. Adeli E, Zhao Q, Pfefferbaum A, Sullivan EV, Li FF, Niebles JC, **Pohl KM**: Representation Learning with Statistical Independence to Mitigate Bias, *IEEE/CVF Winter Conference on Applications of Computer Vision*, pp. 2513-2523, 2021.
83. Honnorat N, Saranatha M, Sullivan EV, Pfefferbaum A, **Pohl KM**, Zahr NM: Performance ramifications of abnormal functional connectivity of ventral posterior lateral thalamus with cerebellum in abstinent individuals with Alcohol Use Disorder, *Drug and Alcohol Dependence*, Volume 220, 108509, 2021
* Conducted data analysis and interpretation
84. Zhao Q, **Pohl KM***, Sullivan EV, Pfefferbaum A, Zahr NM: Jacobian mapping reveals converging substrates of disruption and repair in response to ethanol exposure and abstinence in two strains of rats, *Alcoholism: Clinical and Experimental Research*, vol 45, pp. 92-104, 2021.
* Conducted data analysis and interpretation
85. Zhao Q, Adeli E, **Pohl KM**: Training Confounder-Free Deep Learning Models for Medical Applications, *Nature Communications*, 11, 6010, 2020.
86. Adeli E, Li X, Kwon D, Zhang Y, **Pohl KM**: Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Volume 42, Issue 7, pp. 1713-1728, 2020.
87. Adeli, E, Zhao Q, Zahr NM, Goldstone A, Pfefferbaum A, Sullivan EV, **Pohl KM**: Deep Learning Identifies Morphological Determinants of Sex Differences in the Pre-Adolescent Brain, *NeuroImage*, 223, 117293, 2020.
88. Zhao Q, Pfefferbaum A, Podhasjky S, **Pohl KM***, Sullivan EV: Accelerated Aging and Motor Control Deficits Are Related to Regional Deformation of Central Cerebellar White Matter in Alcohol Use Disorder, *Addiction Biology*, 25:e12746, 2020.
* Conducted data analysis and interpretation
89. Gadgil S, Zhao Q, Adeli E, Pfefferbaum A, Sullivan EV, **Pohl KM**: Spatio-Temporal Graph Convolution for Resting-State fMRI Analysis, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, vol. 12267, pp 528-538, 2020.
90. Lu M, Poston K, Pfefferbaum A, Sullivan EV, Li FF, **Pohl KM**, Niebles JC, Adeli E: Vision-based Estimation of MDS-UPDRSGait Scores for Assessing Parkinson's Disease Motor Severity, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, vol. 12263, pp 637-647, 2020.
91. Ayub R, Zhao Q, Meloy MJ, Pfefferbaum A, Sullivan EV, Adeli E, **Pohl KM**: Inpainting Cropped Diffusion MRI using Deep Generative Models, *Predictive Intelligence in Medicine*, Lecture Notes in Computer Science, vol. 12329, pp 91-100, 2020.
92. Honnorat N, Sullivan EV, Pfefferbaum A, **Pohl KM**: Deep Parametric Mixtures for Modeling the Functional Connectome, *Predictive Intelligence in Medicine*, Lecture Notes in Computer Science, vol. 12329, pp 133-143, 2020.
93. Sullivan EV, Moore EM, Lane B, **Pohl KM**, Riley EP, Pfefferbaum A: Graded Cerebellar Lobular Volume Deficits in Adolescents and Young Adults with Fetal Alcohol Spectrum Disorders (FASD), *Cerebral Cortex*, 30(9), pp 4729–4746, 2020.
94. Zahr NM, Lenart AM, Karpf JA, Casey KM, **Pohl KM**, Sullivan EV, Pfefferbaum A: Multi-modal imaging reveals differential brain volumetric, biochemical, and white matter fiber responsivity to repeated intermittent ethanol vapor exposure in male and female rats, *Neuropharmacology*, 170, 108066, 2020.
95. Sullivan EV, Brumback T, Tapert S, Brown SA, Baker FC, Colrain IM, Prouty D, De Bellis MD, Clark DB, Nagel BJ, **Pohl KM**, Pfefferbaum A: Disturbed Cerebellar Growth Trajectories in Adolescents Who Initiate Alcohol Drinking, *Biological Psychiatry*, Volume 87, Issue 7, 2020.
96. Kwon D, Pfefferbaum A, Sullivan EV, **Pohl KM**: Regional Growth Trajectories of Cortical Myelination in Adolescents and Young Adults: Longitudinal Validation and Functional Correlates, *Brain Imaging and Behavior*, 14, pp 242–266, 2020
97. Zahr NM, Sullivan EV, **Pohl KM**, Pfefferbaum A, Saranathan M: Sensitivity of Ventrolateral Posterior Thalamic Nucleus to Back Pain in Alcoholism and CD4 Nadir in HIV, *Human Brain Mapping*, 41, pp. 1351– 1361, 2020.
98. Zhao Q, Kwon D, Müller-Oehring EM, Le Berre AP, Pfefferbaum A, Sullivan EV, **Pohl KM**: Longitudinally Consistent Estimates of Intrinsic Functional Networks, *Human Brain Mapping*, 40 (8), pp. 2511-2528, 2019.

99. Sullivan EV, Zahr NM, Saranathan M, **Pohl KM**, Pfefferbaum A: Convergence of three parcellation approaches demonstrating cerebellar lobule volume deficits in Alcohol Use Disorder, *NeuroImage: Clinical*, 24, 101974, 2019
100. Zahr NM, **Pohl KM**, Pfefferbaum A, Sullivan EV: Central Nervous System Correlates of "Objective Neuropathy" in Alcohol Use Disorder, *Alcoholism: Clinical and Experimental Research*, 43(10), pp 2144-52, 2019.
101. Zahr NM, **Pohl KM**, Pfefferbaum A, Sullivan EV: Dissociable Contributions of Precuneus and Cerebellum to Subjective and Objective Neuropathy in HIV, *Journal of Neuroimmune Pharmacology*. 14(3), 436-447, 2019
102. Fama R, Sasson SA, Le Berre AP, Zahr NM, **Pohl KM**, Pfefferbaum A, Sullivan EV: Relations between cognitive and motor deficits and regional brain volumes in individuals with alcoholism, *Brain Structure and Function*, 224(6), pp 2087-2101, 2019.
103. Peterson E, Kwon D, Luna B, Larsen B, Pouty D, De Bellis M, Voyvodic J, Liu C, Li W, **Pohl KM**, Sullivan EV, Pfefferbaum A.: Distribution of Brain Iron Accrual in Adolescence: Evidence from Cross-Sectional and Longitudinal Analysis, *Human Brain Mapping*, 40, pp. 1480–1495, 2019.
104. Hagler, DJ, Hatton SN, Cornejo MD, Makowski C, Fair DA, Dick AS, Sutherland MT, Casey BJ, Barch DM, Harms MP, Watts R, Bjork JM, Garavan HP, Hilmer L, Pung CJ, Sicat CS, Kuperman J, Bartsch H, Xue F, Heitzeg MM, Laird AR, Trinh TT, Gonzalez R, Tapert SF, Riedel MC, Squeglia LM, Hyde LW, Rosenberg MD, Earl EA, Howlett KD, Baker FC, Soules M, Diaz J, de Leon OR, Thompson WK, Neale MC, Herting M, Sowell ER, Alvarez RP, Hawes SW, Sanchez M, Bodurka J, Breslin FJ, Morris AS, Paulus MP, Simmons WK, Polimeni JR, van der Kouwe A, Nencka AS, Gray KM, Pierpaoli C, Matochik JA, Noronha A, Aklin WM, Conway K, Glantz M, Hoffman E, Little R, Lopez M, Pariyadath V, Weiss SRB, Wolff-Hughes DL, DelCarmen-Wiggins R, Feldstein Ewing SW, Miranda-Dominguez O, Nagel BJ, Perrone AJ, Sturgeon DT, Goldstone A, Pfefferbaum A, **Pohl KM**, Prouty D, Uban K, Bookheimer SY, Dapretto M, Galvan A, Bagot K, Giedd J, Infante MA, Jacobus J, Patrick K, Shilling PD, Desikan R, Li Y, Sugrue L, Banich MT, Friedman N, Hewitt JK, Hopfer C, Sakai J, Tanabe J, Cottler LB, Nixon SJ, Chang L, Cloak C, Ernst T, Reeves G, Kennedy DN, Heeringa S, Peltier S, Schulenberg J, Sripada C, Zucker RA, Iacono WG, Luciana M, Calabro JF, Clark DB, Lewis DA, Luna B, Schirda C, Brima T, Foxe JJ, Freedman EG, Mruzek DW, Mason MJ, Huber R, McGlade E, Prescott A, Renshaw PF, Yurgelun-Todd DF, Allgaier NA, Dumas JA, Ivanova M, Potter A, Florsheim P, Larson C, Lisdahl K, Charness ME, Fuemmeler B, Hettema JM, Maes HH, Steinberg J, Anokhin AP, Glaser P, Heath AC, Madden PA, Baskin-Sommers A, Constable RT, Grant SJ, Dowling GJ, Brown SA, Jernigan TL, Dale AM: Image processing and analysis methods for the Adolescent Brain Cognitive Development Study, *NeuroImage*, vol 202, Article 116091, 2019.
105. Adeli E, Zahr NM, Pfefferbaum A, Sullivan EV, **Pohl KM**: Novel Machine Learning Identifies Brain Patterns Distinguishing Diagnostic Membership of HIV, Alcoholism, and Their Comorbidity of Individuals, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 4(6), pp 589–599, 2019.
106. Leng T, Zhao Q, Yang C, Lu Z, Adeli E, **Pohl KM**: Data Augmentation based on Substituting Regional MRI Volume Scores, *Large-scale Annotation of Biomedical data and Expert Label Synthesis*, Lecture Notes in Computer Science, 11851, pp 32-41, 2019.
107. Honnorat N, Adeli E, Zhao Q, Pfefferbaum A, Sullivan E, **Pohl KM**: Covariance Shrinkage for Dynamic Functional Connectivity, *Connectomics in NeuroImaging*, Lecture Notes in Computer Science, vol. 11848, pp 32-41, 2019
108. Zhao Q, Adeli E, Pfefferbaum A, Sullivan EV, **Pohl KM**: Confounder-Aware Visualization of ConvNets, *Machine Learning and Medical Imaging*, Lecture Notes in Computer Science, 11861, pp 328 – 336, 2019
109. Zhao Q, Honnorat N, Adeli E, Leng T, **Pohl KM**: Variational Autoencoder for Regression: Application to Brain Aging Analysis, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 11765, pp 823 – 31, 2019
110. Zhao Q, Honnorat N, Adeli E, Pfefferbaum A, Sullivan EV, **Pohl KM**: Variational Autoencoder with Truncated Mixture of Gaussians for Functional Connectivity Analysis, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, 11492, pp 867–879, 2019.

111. Pfefferbaum A, Kwon D, Brumback T, Cummins K, Tapert SF, Brown SA, Colrain IM, Baker FC, Prouty D, De Bellis MD, Clark DB, Nagel BJ, Chu W, Park SH, **Pohl KM**, Sullivan EV: Altered Brain Developmental Trajectories in Adolescents after Initiating Drinking, *American Journal of Psychiatry*, 175(4), pp. 370-380, 2018.
112. Sullivan EV, Zahr NM, Sassoon SA, Thompson WK, Kwon D, **Pohl KM**, Pfefferbaum A: The Role of Aging, Drug Dependence, and Hepatitis C Comorbidity in Alcoholism Cortical Compromise, *JAMA Psychiatry*, 75(5), pp. 474 – 483, 2018.
113. Zhao Q, Fritz M, Pfefferbaum A, Sullivan EV, **Pohl KM**, Zahr NM: Jacobian maps reveal under-reported brain regions sensitive to extreme binge ethanol intoxication in the rat, *Frontiers in Neuroanatomy*, 12(108), pp 1. -13, 2018.
114. Pfefferbaum A, Zahr NM, Sassoon SA, Kwon D, **Pohl KM**, Sullivan EV: Accelerating and Premature Aging Characterizing Regional Cortical Volume Loss in Human Immunodeficiency Virus Infection: Contributions from Alcohol, Substance Use, and Hepatitis C Co-Infection, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 3(10), pp. 844-859, 2018.
115. Adeli E, Kwon D, Zhao Q, Pfefferbaum A, Zahr NM, Sullivan EV, **Pohl KM**: Chained regularization for identifying brain patterns specific to HIV infection, *NeuroImage*, 183, 425 -437, 2018.
116. Goldstone A, Willoughby A, de Zambotti M, Frenzen PL, Kwon D, **Pohl KM**, A. Pfefferbaum, Sullivan EV, Müller-Oehring EM, Prouty D, Hasler BP, Clark DB, Colrain IM, Baker FC: The mediating role of cortical thickness and gray matter on sleep slow wave activity during adolescence, *Brain Structure and Function*, 223(2), pp. 669-685, 2018.
117. Adeli E, Kwon D, **Pohl, KM**: Multi-Label Transduction for Identifying Disease Comorbidity Patterns, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 11072, pp 575–583, 2018.
118. Zhao Q, Kwon, D, **Pohl KM**: A Riemannian Framework for Longitudinal Analysis of Resting-State Functional Connectivity, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 11072, pp 145–153, 2018.
119. Esmaeilzadeh S, Belivanis DI, **Pohl KM**, Adeli E: End-To-End Alzheimer's Disease Diagnosis and Biomarker Identification, *Machine Learning in Medical Imaging*, Lecture Notes in Computer Science, 11046, pp 337–345, 2018
120. Park SH, Zhang Y, Kwon D, Zhao Q, Zahr N, Pfefferbaum A, Sullivan E, **Pohl, KM**: Alcohol use effect on adolescent brain development revealed by simultaneously removing confounding factors, identifying morphometric patterns, and classifying individuals, *Scientific Reports*, 8 (8297), pp. 1-14, 2018.
121. Bernardis E, Zhang Y, Konukoglu E, Ou Y, Javitz HS, Axel L, Metaxas D, Desjardins B, **Pohl KM**: eCurves: A Temporal Shape Encoding, *IEEE Transactions on Biomedical Engineering*, 65(4), pp 733-744, 2018.
122. Müller-Oehring EM, Kwon D, Nagel BJ, Sullivan EV, Chu W, Rohlfing T, Prouty D, Nichols N, Poline J-B, Tapert SF, Brown SA, Cummins K, Brumback T, Colrain IM, Baker FC, De Bellis MD, Voyvodic J, Clark DB, Pfefferbaum DB, **Pohl KM**: Influences of age, sex, and moderate alcohol drinking on the intrinsic functional architecture of adolescent brains, *Cerebral Cortex*, 28(3), pp 1049-1063, 2018.
123. Sullivan EV, Lane B, Kwon D, Meloy MJ, Tapert SF, Brown SA, Colrain IM, Baker FC, De Bellis MD, Clark DB, Nagel BJ, **Pohl KM**, A. Pfefferbaum: Structural brain anomalies in healthy adolescents in the NCANDA cohort: Relation to neuropsychological test performance, sex, and ethnicity, *Brain Imaging and Behavior*, 11, pp 1302-1315, 2017.
124. Zhang Y, Kwon D, **Pohl KM**: Computing group cardinality constraint solutions for logistic regression problems, *Medical Image Analysis*, 35, pp 58-69, 2017.
125. Yang D, Wu P, Tan C, **Pohl KM**, Axel L, Metaxas D: 3D Motion Modeling and Reconstruction of Left Ventricle Wall in Cardiac MRI, *Functional Imaging and Modeling of the Heart*, pp 481-492, 2017.
126. Clark DB, Chung T, Martin CS, Hasler BP, Fitzgerald DH, Luna B, Brown SA, Tapert SF, Brumback T, Cummins K, Pfefferbaum A, Sullivan EV, **Pohl KM**, Colrain IM, Baker FC, De Bellis MD, Nagel BJ, Adolescent executive dysfunction in daily life: Relationships to risks, brain structure and substance use, *Frontiers in Behavioral Neuroscience*, 11, 223, 2017.
127. Niethammer M, **Pohl KM**, Janoos F, Wells WM: Active mean fields for probabilistic image segmentation: Connections with Chan-Vese and Rudin-Osher-Fatemi models, *SIAM Journal on Imaging Sciences*, 10(3), pp 1069-1103, 2017.

128. Hasler BP, Franzen PL, de Zambotti M, Prouty D, Brown SA, Tapert SF, Pfefferbaum A, **Pohl KM**, Sullivan EV, De Bellis MD, Nagel BJ, Baker FC, Colrain IM, Clark DB: Eveningness and later sleep timing are associated with greater risk for alcohol and marijuana use in adolescence: Initial findings from the NCANDA study, *Alcoholism: Clinical and Experimental Research*, 41(6), pp 1154-1165, 2017.
129. Sullivan EV, Brumback T, Tapert SF, Prouty D, Fama R, Thompson W, Brown SA, Cummins K, Colrain IM, Baker FC, Clark DB, Chung T, De Bellis MD, Hooper S, Nagel BJ, Chu W, Kwon D, **Pohl KM**, Pfefferbaum A: Effects of prior testing lasting a full year in NCANDA adolescents: Contributions from age, sex, socioeconomic status, ethnicity, site, family history of alcohol or drug abuse, and baseline performance, *Developmental Cognitive Neuroscience*, 24, pp 72–83, 2017.
130. Zhang Y, Park S, **Pohl KM**: Joint data harmonization and group cardinality constrained classification, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 9900, pp 282–290, 2016.
131. Zhang Y, Kwon D, Esmaeili-Firidouni PE, Pfefferbaum A, Sullivan EV, Javitz H, Valcour V, **Pohl KM**: Extracting patterns of morphometry distinguishing HIV associated neurodegeneration from mild cognitive impairment via group cardinality constrained classification, *Human Brain Mapping*, 37(12), pp 4523-4538, 2016.
132. **Pohl KM**, Sullivan EV, Rohlfing T, Chu W, Kwon D, Nichols BN, Zhang Y, Brown SA, Tapert SF, Cummins K, Thompson WK, Brumback T, Colrain IM, Baker FC, Prouty D, De Bellis MD, Voyvodic JT, Clark DB, Schrida C, Nagel BJ, Pfefferbaum A: Harmonizing DTI measurements across scanners to examine the development of white matter microstructure in 803 adolescents of the NCANDA study, *NeuroImage*, 130, pp 194-213, 2016.
133. Sullivan EV, Brumback T, Tapert SF, Fama R, Prouty D, Brown SA, Cummins K, Thompson WK, Colrain IM, Baker FC, De Bellis MD, Hooper SR, Clark DB, Chung T, Nagel B, Nichols BN, Rohlfing T, Chu W, **Pohl KM**, Pfefferbaum A: Cognitive, emotion control, and motor performance of adolescents in the NCANDA study: Contributions from alcohol consumption, age, sex, ethnicity, and family history of addiction, *Neuropsychology*, 30(4), pp 449-473, 2016.
134. Pfefferbaum A, Rohlfing T, **Pohl KM**, Lane B, Chu W, Kwon D, Brown SA, Tapert SF, Cummins K, Thompson WK, Brumback T, Meloy MJ, Jernigan TL, Dale A, Colrain IM, Baker FC, Prouty D, De Bellis MD, Voyvodic JT, Clark DB, Luna B, Chung T, Nagel B, Sullivan EV: Adolescent development of cortical and white matter structure in the NCANDA sample: Role of sex, ethnicity, puberty, and alcohol drinking, *Cerebral Cortex*, 26(10), pp 4101-21, 2016.
135. Nichols BN, **Pohl KM**: Neuroinformatics Software applications supporting electronic data capture, management, and sharing for the neuroimaging community, *Neuropsychology Review*, 25(3), pp 356-68, 2015.
136. Brown SA, Brumback T, Tomlinson K, Cummins K, Thompson WK, Nagel BJ, De Bellis MD, Hooper SR, Clark DB, Chung T, Hasler BP, Colrain IM, Baker FB, Prouty D, Pfefferbaum A, Sullivan EV, **Pohl KM**, Rohlfing T, Nichols BN, Chu W, Tapert SF: The National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA): A multi-site study of adolescent development and substance use, *Journal of Studies on Alcohol and Drugs*, 76(6), pp. 895-908, 2015.
137. Zhang Y, **Pohl KM**: Solving Logistic Regression with Group Cardinality Constraints for Time Series Analysis, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 9351, pp. 459-466, 2015.
138. Pfefferbaum A, Rosenbloom MJ, Chu W, Sassoon SA, Rohlfing T, **Pohl KM**, Zahr NM, Sullivan EV: White matter microstructural recovery with abstinence and decline with relapse in alcoholism: a controlled longitudinal DTI study, *The Lancet Psychiatry*, 1(3), pp 202–212, 2014.
139. Ye DH, Desjardins B, Hamm J, Litt H, **Pohl KM**: Regional manifold learning for disease classification, *IEEE Transactions on Medical Imaging*, 33(6), pp 1236–1247, 2014.
140. Kwon D, Niethammer M, Akbari H, Billelo M, Davatzikos C, **Pohl KM**: PORTR: Pre-operative and post-recurrence brain tumor registration, *IEEE Transactions on Medical Imaging*, 33(3), pp 651–667, 2014.
141. Ye DH, Desjardins B, Ferrari V, Metaxas D, **Pohl KM**: Auto-encoding of discriminating morphometry from cardiac MRI, *IEEE International Symposium on Biomedical Imaging*, pp 217-221, 2014.
142. Konukoglu E, Glocker B, Criminisi A, **Pohl KM**: WESD - Weighted Spectral Distance for measuring shape dissimilarity, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 35(9), pp. 2284-2297, 2013.

143. Ye DH, Hamm J, Desjardins B, **Pohl KM**: FLOOR: Fusing locally optimal registrations, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 8151, pp 195-202, 2013.
144. Uzunbas MG, Chen C, Zhang S, **Pohl KM**, Li K, Metaxas D: Collaborative multi organ segmentation by integrating deformable and graphical models, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 8150, pp 157-164, 2013.
145. Bernardis E, **Pohl KM**, Davatzikos C: Extracting evolving pathologies via spectral clustering, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, 7917, pp 680-691, 2013.
146. Tunc B, Smith A, Wassermann D, Pennec X, Wells WM, Verma R, **Pohl KM**: Multinomial probabilistic fiber representation for connectivity driven clustering, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, 7917, pp 730-741, 2013.
147. Gooya A, **Pohl KM**, Billelo M, Cirillo L, Biros G, Melhem ER, Davatzikos C: GLISTR: Glioma image segmentation and registration, *IEEE Transaction on Medical Imaging*, 31(10), pp 1941-54, 2012.
148. Konukoglu E, Glocker B, Ye DH, Criminisi A, **Pohl KM**: Discriminative segmentation-based evaluation through shape dissimilarity, *IEEE Transactions on Medical Imaging*, 31(12), pp 2278-89, 2012.
149. Bernardis E, Konukoglu E, Ou Y, Metaxas D, Desjardins B, **Pohl KM**: Temporal shape analysis via the spectral signature, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 7511, pp 49-56, 2012.
150. Ye DH, Hamm J, Davatzikos C, **Pohl KM**: Regional manifold learning for deformable registration of brain MR images, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 7512, pp 131-138, 2012.
151. Ou Y, Ye DH, **Pohl KM**, Davatzikos C: Validation of DRAMMS among 12 popular methods in cross-subject cardiac MRI registration, *Fifth Workshop on Biomedical Image Registration*, Lecture Notes in Computer Science, 7359, pp 209-219, 2012.
152. Ye DH, Hamm J, **Pohl KM**: Combining regional metrics for disease-related brain population analysis, *IEEE International Symposium on Biomedical Imaging*, pp 1515- 1518, 2012.
153. Jayender J, Vosburgh KG, Gombos E, Ashraf A, Kontos D, Gavenonis SC, Jolesz FA, **Pohl KM**: Automatic segmentation of breast carcinomas from DCE-MRI using a statistical learning algorithm, *IEEE International Symposium on Biomedical Imaging*, pp122-125, 2012.
154. Uzunbas MG, Zhang S, **Pohl KM**, Metaxas D, Axel L: Segmentation of myocardium using deformable regions and graph cuts, *IEEE International Symposium on Biomedical Imaging*, pp 254 - 257, 2012.
155. Kwon D, Yun D, **Pohl KM**, Davatzikos C, Lee SU: Nonrigid volume registration using a second-order MRF model, *IEEE International Symposium on Biomedical Imaging*, pp 708 - 711 2012.
156. Eckl J, Daum V, Hornegger J, **Pohl KM**: Guiding non-rigid registration via learning and landmarks, *IEEE International Symposium on Biomedical Imaging*, pp 704 - 707, 2012.
157. **Pohl KM**, Konukoglu E, Novellas S, Ayache N, Fedorov A, Talos I-F, Golby A, Wells WM, Kikinis R, Black PM: A new metric for detecting change in slowly evolving brain tumors: validation in meningioma patients, *Neurosurgery*, Mar;68(1 Suppl Operative), pp 225-33, 2011.
158. Fedorov A, Li X, **Pohl KM**, Bouix S, Styner M, Addicott M, Wyatt C, Daunais JB, Wells WM, Kikinis R: Atlas-guided segmentation of vervet monkey brain MRI, *Special Issue on Neuroimaging of non-human Primates in Open Neuroimage Journal*, 5(Suppl 2-M7), pp186-197, 2011.
159. Gooya A, **Pohl KM**, Billelo MI, Biros G, Davatzikos C: Joint segmentation and deformable registration of brain scans guided by a tumor growth model, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 6892, pp 532-540, 2011.
160. Gaonkar B, **Pohl KM**, Davatzikos C: Pattern based morphometry, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 6892, pp 459-466, 2011.
161. Gaonka B, Erus G, **Pohl KM**, Tanwar M, Margiewicz S, Bryan RN, Davatzikos C: Automated segmentation of cortical necrosis using a wavelet-based abnormality detection system, *IEEE International Symposium on Biomedical Imaging*, pp 1391- 1395, 2011.
162. Ye DH, **Pohl KM**, Davatzikos C: Semi-Supervised Pattern Classification: Application to Structural MRI of Alzheimer's Disease, *IEEE International Workshop on Pattern Recognition in NeuroImaging*, pp 1-4, 2011.

163. Ye DH, Litt H, Davatzikos C, **Pohl KM**: Morphological classification: application to cardiac MRI of Tetralogy of Fallot, *Functional Imaging and Modeling of the Heart*, Lecture Notes in Computer Science, 6666, pp 180-187, 2011.
164. Batmanghelich N, Ye DH, **Pohl KM**, Taskar B, Davatzikos C: Disease classification and prediction via semi-supervised dimensionality reduction, *IEEE International Symposium on Biomedical Imaging*, pp 1086 - 1090, 2011.
165. Syeda-Mahmood T, Turaga R, Beymer D, Wang F, Amir A, Greenspan H, **Pohl KM**. Shape-based similarity retrieval of Doppler images for clinical decision support, *IEEE Conference on Computer Vision and Pattern Recognition*, pp 855-862, 2010.
166. Chen K, Zhang Y, **Pohl KM**, Syeda-Mahmood T, Song Z, Wong STC: Coronary artery segmentation using geometric moments based tracking and snake-driven refinement, *IEEE Engineering in Medicine and Biology*, pp 3133-3137, 2010.
167. Amir A, Beymer D, Grace J, Greenspan H, Gruhl D, Hobbs A, **Pohl KM**, Syeda-Mahmood T, Terdiman J, Wang F: AALIM: A cardiac clinical decision support system powered by advanced multi-modal analytics, *Medical Informatics*, Studies in Health Technology and Informatics, 160, pp 846-850, 2010.
168. Ye DH, **Pohl KM**, Litt H, Davatzikos C: Groupwise Morphometric analysis based on high dimensional clustering, *IEEE Computer Society Workshop on Mathematical Methods in Biomedical Image Analysis*, pp 47-54, 2010.
169. **Pohl KM**, Sabuncu MR: A unified framework for MR based disease classification, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, 5636, pp 300-313, 2009.
170. Konukoglu E, Wells WM, Novellas S, Ayache N, Kikinis R, Black PM, **Pohl KM**: Monitoring slowly evolving tumors, *IEEE International Symposium on Biomedical Imaging*, pp 812 -815, 2008.
171. Vosburgh KG, Stoll J, Noble V, **Pohl KM**, Estepar RSJ, Takacs B: Image registration assists novice operators in ultrasound assessment of abdominal trauma, *Medicine Meets Virtual Reality*, Studies in Health Technology and Informatics, 132, pp 532 - 537, IOS Press, 2008.
172. Rehman T, Haber E, **Pohl KM**, Haker S, Halle M, Talos F, Wald L, Kikinis R, Tannenbaum A: Multimodal registration of white matter brain data via optimal mass transport, *The MIDAS Journal - Computational Biomechanics for Medicine*, pp 27 - 35, 2008.
173. **Pohl KM**, Fisher J, Bouix S, Shenton ME, McCarley RW, Grimson WEL, Kikinis R, Wells WM: Using the logarithm of odds to define a vector space on probabilistic atlases, *Medical Image Analysis*, 11(6), pp 465-477, 2007.
174. **Pohl KM**, Bouix S, Nakamura M, Rohlfing T, McCarley RW, Kikinis R, Grimson WEL, Shenton ME, Wells WM: A hierarchical algorithm for MR brain image parcellation, *IEEE Transaction on Medical Imaging*, 26(9), pp 1201-1212, 2007.
175. **Pohl KM**, Kikinis R, Wells WM: Active mean fields: Solving the mean field approximation in the level set framework, *Information Processing in Medical Imaging*, Lecture Notes in Computer Science, 4584, pp 26-37, 2007.
176. Koo M-S, Dickey CC, Shenton ME, Ji NY, Bouix S, **Pohl KM**, Levitt JJ, Nakamura M, McCarley RW: Smaller neocortical gray matter and larger sulcal CSF volumes in neuroleptic-naïve females with schizotypal personality disorder, *Archives of General Psychiatry*, 63, pp 1090-1100, 2006.
177. Nakamura M, Salisbury DF, Hirayasu Y, Bouix S, **Pohl KM**, Yoshida T, Koo MS, Shenton ME, McCarley RW: Neocortical gray matter volume in first episode schizophrenia and first episode affective psychosis: A cross-sectional and longitudinal MRI study, *Biological Psychiatry*, 62(7), pp 773-83, 2007.
178. **Pohl KM**, Fisher J, Grimson WEL, Kikinis R, Wells WM: A Bayesian model for joint segmentation and registration, *NeuroImage*, 31(1), pp 228-239, 2006.
179. **Pohl KM**, Fisher J, Shenton M, McCarley RW, Grimson WEL, Kikinis R, Wells WM: Logarithm odds maps for shape representation, *Medical Image Computing and Computer-Assisted Intervention*, Lecture Notes in Computer Science, 4191, pp 955-963, 2006.
180. **Pohl KM**, Fisher J, Levitt JJ, Shenton ME, Kikinis R, Grimson WEL, Wells WM: A unifying approach to registration, segmentation, and intensity correction, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 3749, pp 310-318, 2005.

181. **Pohl KM**, Fisher J, Kikinis R, Grimson WEL, Wells WM: Shape based segmentation of anatomical structures in magnetic resonance images, *Computer Vision for Biomedical Image Applications: Current Techniques and Future Trend, An International Conference on Computer Vision Workshop*, Lecture Notes in Computer Science, 3765, pp 489-498, 2005.
182. **Pohl KM**, Warfield SK, Kikinis R, Grimson WEL, Wells WM: Coupling statistical segmentation and PCA shape modeling, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 3216, pp 151–9, 2004.
183. **Pohl KM**, Bouix S, Kikinis R, Grimson WEL: Anatomical guided segmentation with non-stationary tissue class distributions in an expectation-maximization framework, *IEEE International Symposium on Biomedical Imaging*, pp 81 – 84, 2004.
184. **Pohl KM**, Wells WM, Guimond A, Kasai K, Shenton ME, Kikinis R, Grimson WEL, Warfield SK: Incorporating non-rigid registration into expectation maximization algorithm to segment MR images, *Medical Image Computing and Computer Assisted Intervention*, Lecture Notes in Computer Science, 2488, pp 564-572, 2002.

Original Research Published Directly by Scientific Meeting

1. Zukić D, Haley A, Lisle C, Klo J, **Pohl KM***, Johnson HJ, Chaudhary A: Medical Image Quality Assurance using Deep Learning, *Medical Imaging with Deep Learning*, 2022.
* Provided critical revision of manuscript for important intellectual content
2. Zöllei L, Shenton M, Wells WM, **Pohl KM**: The impact of atlas formation methods on atlas-guided brain segmentation, *Statistical Registration: Pair-wise and Group-wise Alignment and Atlas Formation*, pp 39-46, 2007.
3. **Pohl KM**, Bouix S, Shenton ME, Grimson WEL, Kikinis R: Automatic segmentation using non-rigid registration, *Short Communications of Medical Image Computing and Computer Assisted Intervention*, 2005.
4. Rogalla O, **Pohl KM**, Dillmann R: A General approach for modeling robots, *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 3, pp 1963 – 1968, 2000.

Review Articles

1. Zhao Q, **Pohl KM**: Leveraging Machine Learning to Advance Alcohol Research: Current Applications, Challenges, and Opportunities, *Alcohol Research: Current Reviews*, In Press.
2. Kim J, Gonzalez Pacheco JP, Golden A, Aboujaoude E, van Roessel P, Gandhi A, Mukunda P, Avanesyan T, Xue H, Adeli E, Kim JP, Saggat M, Wiltsey Stirman S, Kuhn ER, Supekar K, **Pohl KM***, Rodriguez CI: Artificial Intelligence in Obsessive-Compulsive Disorder: A Systematic Review. *Current Treatment Options in Psychiatry*, 12(23), 2025.
* Provided critical revision of manuscript for important intellectual content
3. Zhao Q, Nooner KB, Tapert SF, Adeli E, **Pohl KM***, Kuceyeski A, Sabuncu MR: The Transition from Homogeneous to Heterogeneous Machine Learning in Neuropsychiatric Research, *Biological Psychiatry Global Open Science*, 5(1), 100397, 2025.
* Provided critical revision of manuscript for important intellectual content
4. Mukerji, SS, Petersen KJ, **Pohl KM***, Dastgheib RM, Fox HS, Bilder RM, Brouillette M-J, Gross AL, Scott-Sheldon LAJ, Paul RH, Gabuzda D: Machine learning approaches to understand cognitive phenotypes in people with HIV, *The Journal of Infectious Diseases*, Volume 227, Issue Supplement_1, Pages S48–S57, 2023.
* Provided critical revision of manuscript for important intellectual content

BOOK CHAPTERS

- Peng W, **Pohl KM**: Generative Models for Synthesizing Anatomical Plausible 3D Medical Images, *In Slabaugh G: Generative Machine Learning Models in Medical Image Computing*, Springer, Chapter 16, 2025
- Pohl KM**, Konukoglu E, Golby A, Kikinis R: Automatic Tumor Growth Detection, *In Pamir MN, Black P, Fahlbusch R: Meningiomas - A Comprehensive Text*, Philadelphia, Saunders, pp 2671 - 271, 2010.

COMMENTARY ACCOMPANYING CO-AUTHORED ARTICLES

Zhao Q, Nooner KB, Tapert SF, Adeli E, Pohl KM*, Kuceyeski A, Sabuncu MR: The Transition from Homogeneous to Heterogeneous Machine Learning in Neuropsychiatric Research

Commentary by D Scheinost & MN Spann: Embracing Model Heterogeneity for Better Brain-Behavior Associations, *Biological Psychiatry Global Open Science*, 5(1), 100425, 2025

Sullivan EV, Brumback T, Tapert S, Brown SA, Baker FC, Colrain IM, Prouty D, De Bellis MD, Clark DB, Nagel BJ, Pohl KM, Pfefferbaum A: Disturbed Cerebellar Growth Trajectories in Adolescents Who Initiate Alcohol Drinking, *Biological Psychiatry*

Commentary by AD Meruelo: Adolescent Cerebellar Development: An Underexplored Frontier, *Biological Psychiatry*, 87(7), e19–e20, 2020

Adeli E, Zahr NM, Pfefferbaum A, Sullivan EV, Pohl KM: Novel Machine Learning Identifies Brain Patterns Distinguishing Diagnostic Membership of Human Immunodeficiency Virus, Alcoholism, and Their Comorbidity of Individuals,

Biological Psychiatry: Biological Psychiatry: Cognitive Neuroscience and Neuroimaging

Commentary by C.Fennema-Notestine: Data-Driven Exploration of Brain Structure Using Statistical Machine Learning: Validity of Derived Diagnostic Patterns in Alcohol Use Disorder and Human Immunodeficiency Virus Infection, *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, 4(6), pp.508-509, 2019

Sullivan EV, Zahr NM, Sassoon SA, Thompson WK, Kwon D, Pohl KM, Pfefferbaum A: The Role of Aging, Drug Dependence and Hepatitis C Comorbidity in Alcoholism Cortical Compromise, *JAMA Psychiatry*

Commentary by GF Koob: Age, Alcohol Use, and Brain Function: Yoda Says, “With Age and Alcohol, Confused Is the Force”. *JAMA Psychiatry*. 75(5): 422, 2018

MEDIA COVERAGE

Featuring Co-authored Articles

Li M, Kim E, Zhao Y, Adeli E, Pohl KM: Modality-Aware and Anatomical Vector-Quantized Autoencoding for Multimodal Healthy Brain MRI,

Findings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition

Sci Papermill (scipapermill.com)

04/11/2026

Deep Learning Frontiers: From Explainable Medical AI to Quantum-Inspired Models

Kim S, Park H, Kang M, Jin KH, Adeli E, Pohl KM, Park SH: Federated Learning with Knowledge Distillation for Multi-Organ Segmentation with Partially Labeled Datasets, *Medical Image Analysis*

Asia Research News (<https://www.asiaresearchnews.com>)

05/19/2024

DGIST-Stanford Joint Research Team Successfully Developed Novel Medical AI Model based on Federated Learning! Expected to Take the First Step in the Era of Large-scale AI

Nerrise F, Zhao Q, Poston K, Pohl KM, Adeli E: An Explainable Geometric-Weighted Graph Attention Network for Identifying Functional Networks Associated with Gait Impairment, *Lecture Notes in Computer Science*

RSIP Vision (<https://www.rsipvision.com/MICCAI2023-Tuesday/3>)

10/10/2023

Interview with Favour Nerrise

Republished in the Best of MICCAI Selection

11/01/2023

Zhao Q, Liu Z, Adeli E, Pohl KM: Longitudinal self-supervised learning, *Medical Image Analysis*

Ouyang J, Ouyang J, Zhao Q, Adeli E, Sullivan EV, Pfefferbaum A, Zaharchuk G, Pohl KM:

Self-supervised Longitudinal Neighbourhood Embedding, *Lecture Notes in Computer Science*

Towards Data Science (towardsdatascience.com)

6/20/2022

Longitudinal Self-Supervised Learning

Alzueta E, Podhajsky S, Zhao Q, Tapert SF, Thompson WK, de Zambotti M, Yuksel D, Kiss O, Wang R, Volpe L, Prouty D, Colrain IM, Clark DB, Goldston DB, Nooner KB, De Bellis MD, Brown SA, Nagel BJ, Pfefferbaum A, Sullivan EV, Baker FC, Pohl KM: Risk for Depression Tripled during COVID-19 Pandemic in Emerging Adults Followed for the Last 8 Years, *Psychological Medicine*

Forbes Magazine (www.forbes.com)

11/18/2021

The Risk of Depression in Emerging Adults Suddenly Tripled During COVID-19, and Young Women Are Particularly Vulnerable

Zhao Q, Sullivan EV, Honnorat N, Adeli E, Podhajsky S, De Bellis MD, Voyvodic J, Nooner KB, Baker FC, Colrain IM, Tapert SF, Brown SA, Thompson WK, Nagel BJ, Clark DB, Pfefferbaum A, Pohl KM: Association of Heavy Drinking with Deviant Fiber Tract Development in Frontal Brain Systems in Young Adolescents, *JAMA Psychiatry*

Medscape Medical News (www.medscape.com)

01/07/2021

Heavy Drinking by Teens May Affect White Matter Integrity

Healio News (www.healio.com)

01/04/2021

Heavy alcohol consumption produces 'deleterious' effects on adolescents' white matter

Pohl KM, Thompson WK, Adeli E, Linguraru MG: ABCD Neurocognitive Prediction Challenge, *Lecture Notes in Computer Science*

RSIP Vision (<https://www.rsipvision.com/ComputerVisionNews-2019January/14>)

01/01/2019

Challenge: ABCD (MICCAI 2019) ABCD Neurocognitive Prediction Challenge

Esmailzadeh S, Belivanis DI, Pohl KM, Adeli E: End-To-End Alzheimer's Disease Diagnosis and Biomarker Identification, *Machine Learning in Medical Imaging*

NVIDIA (nvidia.com)

10/03/2018

Stanford Researchers Develop AI that Can Help Diagnose Alzheimer's Disease

About My Research

Stanford Smartly Using AI-Generated Synthetic Data To Map And Unlock The Mysteries Of The Brain

Lance Eliot, Forbes

10/17/2025

Generative AI Is Helping Stanford Researchers Better Understand Brain Diseases

Stanford HAI News

10/08/2025

Stanford Report

10/13/2025

Technology.org

10/20/2025

Precision Mental Health Gets Precisely Boosted Via Innovative Uses Of Advanced AI And LLMs

Lance Eliot, Forbes

09/30/2025

Researchers Identify Adolescent Pathways of Problematic Drinking During Adolescence

Newsweek

06/12/2025

Research Society on Alcoholism

Stanford Initiative Leverages AI To Robustly Transform Mental Health Research and Therapy

Lance Eliot, Forbes

06/02/2025

AI in Mental Health Research with Dr. Kilian Pohl

What Makes Up Your Mind podcast

05/05/2025

AI For Mental Health Gets Attentively Analyzed Via Exciting New Initiative at Stanford University

Lance Eliot, Forbes

04/17/2025

ABSTRACTS (since 2015)

1. Paul R, Carvalho C, Sacdalan C, Cooley S, Mannarino J, Bolzenius J, Dastgheyb R, Moore D, Ellis R, Trautmann L, Burdo T, Ances B, Letendre S, Rubin L, **Pohl KM**: Machine Learning-Derived Cognitive Subtypes of HIV: Results From the NIMH MIAAD-NHIV Initiative, Conference on Retroviruses and Opportunistic Infections (CROI), 2026.
2. González C, Nguyen-Louie TT, Sullivan EV, Pfefferbaum A, Zhao Q, Adeli E, Tapert SF, **Pohl KM**: Identifying Unique Pathways towards Heavy Alcohol Drinking During Adolescence, 48th Annual Research Society on Alcoholism (RSA) Scientific Meeting, 2025
3. Zhao Q, Milecki L, Pfefferbaum A, Sullivan E, **Pohl KM**: Risks and Effects of Alcohol Use During Dual-System Brain and Cognitive Development in Adolescence and Young Adulthood, 48th Annual Research Society on Alcoholism (RSA) Scientific Meeting, 2025
4. Sassoon SA, Fama R, Saranathan M, **Pohl KM**, Sullivan EV, Pfefferbaum A: Postural Instability in Alcohol Use Disorder: Relations to Thalamic Regional and Nuclear Volume, 48th Annual Research Society on Alcoholism (RSA) Scientific Meeting, 2025

5. Schilling L, Singleton S, Hedo M, Tozlu C, Zhao Q, **Pohl KM**, Jamison K, Kuceyeski A: Family History of Substance Use Disorder Alters Brain Dynamics in a Sex-Dependent Manner in Substance-Naïve Youth: Findings from the ABCD Study, Society of Biological Psychiatry (SOBP) Annual Meeting, Biological Psychiatry, Volume 97, Issue 9, S349 - S350, 2025
6. Bolzenius J, Ocampo F, Sacdalan C, Sripliencha S, Poonpitak LN, Sailasuta N, Ake J, Colby D, Chan P, Trautmann L, Vasani S, Crowell T, **Pohl KM**, Spudich S, Paul R: Structural Brain Volumes Decrease After SARS-CoV-2 Infection Among People With HIV, Conference on Retroviruses and Opportunistic Infections (CROI), 2025.
7. Sullivan EV, Sassoon SA, **Pohl KM**, Zahr NM, Pfefferbaum A: Physiological and Brain Mechanisms Underlying Postural Instability in Alcohol Use Disorder, Annual International Society of Addiction Medicine (ISAM) Global Congress, 2025
8. Zhao Q, Pfefferbaum A, Sullivan EV, **Pohl KM**: Identifying Sex-Specific Predictors of Heavy Drinking Young Adults Taking Different Career Paths, Satellite meeting on The ABC'S of Sex & Gender & Alcohol: What do we need to know?, 47th Annual Research Society on Alcoholism (RSA) Scientific Meeting, 2024
9. **Pohl KM**, Paschali M, Zhao Q, Sassoon SA, Pfefferbaum A, Sullivan EV: Identifying Predictors of Grip Strength Specific to Alcohol Use Disorder with and without HIV Comorbidity, Satellite meeting on Alcohol Research in People Living with HIV, 47th Annual Research Society on Alcoholism (RSA) Scientific Meeting, 2024
10. Nguyen-Louie T, Thompson WK., Gonzalez C, Ebersone-Shumate S, Sullivan EV, Pfefferbaum A, **Pohl KM**, Tapert SF: Precursors and outcomes of early onset adolescent drinking, 47th Annual Research Society on Alcoholism (RSA) Scientific Meeting, 2024
11. Paul R, Cho K, Bolzenius J, Sacdalan C, Ocampo F, Chan P, Trautmann L, Ake J, Sriplienchan S, Benjapornpong K, Vasani S, Valcour V, Sailasuta N, Crowell T, **Pohl KM**, Spudich S; for the RV254/SEARCH 010 Study Team. Predictors of CD4/CD8 T-cell inversion after 96 weeks of ART commenced in acute HIV, 31st Conference on Retroviruses and Opportunistic Infections, 2024
12. Bolzenius J, Sailasuta P, Chan P, Sacdalan C, Ake J, Sriplienchan S, Benjapornpong K, Trautmann L, Vasani S, Crowell T, Ocampo F, Spudich S, Valcour V, **Pohl KM**, Paul R; for the RV254/SEARCH 010 Study Team. Further evidence of hypertrophy in acute infection identified using machine learning, 31st Conference on Retroviruses and Opportunistic Infections, 2024
13. Wilson S, Milicic A, Javandel S, Yballa C, Milanini B, **Pohl KM**, Paul R, Valcour, V: Beta-Amyloid PET Positivity Among Cognitively Impaired People With HIV Over Age 60, *Conference on Retroviruses and Opportunistic Infections*, 2024
14. Bolzenius J, Sailasuta N, Chan P, Sacdalan C, Ake, Sriplienchan S, Trautmann L, , Vasani S, Crowell T, Ocampo F, Spudich S, Valcour V, **Pohl KM**, Paul R: Further Evidence of Hypertrophy in Acute Infection Identified Using Machine Learning, *Conference on Retroviruses and Opportunistic Infections*, 2024
15. Fama R, Müller-Oehring EM, Levine TF, Sullivan EV, Asok P, Sassoon SA, Brontë-Stewart HM, Poston KL, **Pohl KM**, Pfefferbaum A, Schulte T: Episodic memory deficits and fronto-limbic correlates in older adults living with HIV: Comparison to Parkinson's disease and normal aging. *Annual meeting of the International Neuropsychological Society*, 2023
16. Pfefferbaum A, **Pohl KM**, Sullivan EV: Consequences of adolescent drinking on cortical and cerebellar structure. *Alcoholism and Stress: A Framework for Future Treatment Strategies*, 2023
17. Riley EP, **Pohl KM**, Grethe A, Stoner SA, Sullivan EV, Pfefferbaum A: Graded regional cerebellar volume deficits in adolescents and adults with Fetal Alcohol Effect (FAE) and Fetal Alcohol Syndrome (FAS). *Alcoholism and Stress: A Framework for Future Treatment Strategies*, 2023
18. Chirokoff, V, **Pohl KM**, Dupuy, M, Abdallah M, Misdrabi D, Serre F, Auriacombe M, Fatseas M, Berthoz S, Swendsen J, Pfefferbaum A, Sullivan EV, Chanraud S. White matter integrity interacts with prognostic factors of relapse in Substance Use Disorders. *Stanford Neuroscience Forum*, 2023.
19. Baker FC, Zhao Q, Pelham III WE, Alzueta E, Podhasky S, Yuksel D, Thompson W, Tapert SF, **Pohl KM**: Changes in Alcohol Consumption and Mental Health across the Coronavirus Pandemic in Early Adulthood, 45th Annual Research Society on Alcoholism Scientific Meeting, 2022
20. **Pohl KM**, Zhao Q, Adeli E, Sullivan EV, Pfefferbaum A: Deep Learning Identifies Effects of Alcohol Drinking on the Early Adult Brain, 45th Annual Research Society on Alcoholism Scientific Meeting, 2022

21. Sullivan EV, Zahr NM, Sassoon SA, **Pohl KM**, Pfefferbaum A: Brain structural correlates of postural instability in HIV infection. *Annual Meeting of the Society on NeuroImmune Pharmacology*. Memphis, 2022
22. Adeli E, Sullivan EV, Lu M, Zhao Q, Montaser Kouhsari L, Katz M, Pfefferbaum A, **Pohl KM**, Henderson VW, Poston K: Automatic Estimation of MDS-UPDRS Gait Scores from Videos with Multi-Rater Disagreements, *Movement Disorders Society Congress*, 2021
23. Kiss O, Alzueta E, Yuksel D, Durley I, Volpe L, Dulai T, Arra N, Obilor T, **Pohl KM**, de Zambotti M, Baker FC, Poor sleep as a predictor of COVID-19 related stress, fear and sadness in young adolescents: a longitudinal study, *Annual Meeting of the Sleep Society*, 2021
24. Zhao Q, Sullivan EV, Honnorat N, Adeli E, Podhajsky S, De Bellis MD, Nooner KB, Baker FC, Colrain IM, Tapert SF, Brown SA, Thompson WK, Nagel BJ, Clark DB, Pfefferbaum A, **Pohl KM**: Young Teens Who Initiate Heavy Drinking Risk Deviant Fiber Tract Development in Frontal Brain Systems, *44th Annual Research Society on Alcoholism Scientific Meeting*, 2021
25. Lannoy S, Pfefferbaum A, Le Berre AP, Thompson WK, Brumback T, Schulte T, **Pohl KM**, De Bellis MD, Nooner KB, Baker FC, Prouty D, Colrain IM, Nagel BJ, Brown SA, Clark DB, Tapert SF, Sullivan EV, Müller-Oehring EM: Growth trajectories of cognitive and motor control in adolescence: How much is development and how much is practice? *44th Annual Research Society on Alcoholism Scientific Meeting*, 2021
26. Fama R, Le Berre AP, Sassoon SA, Zahr NM, **Pohl KM**, Pfefferbaum A, Sullivan EV: Alcohol and substance misuse: Effects on explicit memory and the role of regional frontal volumes. *44th Annual Research Society on Alcoholism Scientific Meeting*, 2021.
27. Riley EP, Moore EM, **Pohl KM**, Sullivan EV, Pfefferbaum A: Graded regional cerebellar volume deficits in adolescents and adults with Fetal Alcohol Effect (FAE) and Fetal Alcohol Syndrome (FAS), *Meeting of stress and neuroimmune factors of addiction*, 2021
28. Pfefferbaum A, **Pohl KM**, Sullivan EV: Consequences of adolescent drinking on cortical and cerebellar structure, *Meeting of stress and neuroimmune factors of addiction*, 2021
29. Lu M, Poston K, Pfefferbaum A, Sullivan EV, Fei-Fei L, **Pohl KM**, Niebles JC, Adeli E: Vision-based Estimation of MDS-UPDRS Gait Scores for Assessing Parkinson's Disease Motor Severity, *Stanford Wu-Tsai Neuroscience Institute Symposium*, 2020
30. **Pohl KM**, Zhao Q, Adeli E: Advancing Neuroscientific Discovery via Bias-Resilient Neural Networks, *54th Asilomar Conference on Signals, Systems and Computers*, 2020
31. Lannoy S, Brumback T, Le Berre A-P, Sullivan EV, **Pohl KM**, Schulte T, Pfefferbaum A, De Bellis MD, Baker FC, Colrain IM, Nagel BJ, Brown SA, Clark DB, Tapert SF, Müller-Oehring EM (2020): The development of cognitive and motor control in adolescence and its relation with alcohol consumption: A three-year investigation, *43rd Annual Research Society on Alcoholism Scientific Meeting*, 2020
32. Honnorat N, Saranathan M, **Pohl KM**, Sullivan EV, Pfefferbaum A, Zahr NM (2020): Alcohol Use Disorder alters functional connectivity of thalamic nuclei, *43rd Annual Research Society on Alcoholism Scientific Meeting*, 2020
33. Pfefferbaum A, Zahr NM, Zhao Q, **Pohl KM**, Sullivan EV: Translational Studies of Alcohol Use Disorder, *7th International Drug Abuse Research Society Meeting*, 2019
34. Sullivan EV, Moore EM, **Pohl KM**, Riley EP, Pfefferbaum A (2019): Pattern of cerebellar lobular volume deficits in adolescents and adult with Fetal Alcohol Effects (FAE) and Fetal Alcohol Syndrome (FAS), *Annual meeting of the American College of Neuropsychopharmacology*, 2019
35. Fama R, Le Berre AP, Sassoon SA, Zahr NM, **Pohl KM**, Pfefferbaum A, Sullivan EV: Frontal correlates of verbal and visual memory in alcoholism: a double dissociation, *Annual Meeting of the Society for Neuroscience*, 2019.
36. Pfefferbaum A, Zahr NM, Zhao Q, **Pohl KM**, Sullivan EV: Translational studies of Alcohol Use Disorder. *Annual Meeting of the International Drug Abuse Research Society*, 2019.
37. Zahr NM, **Pohl KM**, Sullivan EV, Pfefferbaum A: CNS correlates of objective neuropathy in Alcohol Use Disorder (AUD), *42nd Annual Research Society on Alcoholism Scientific Meeting*, 2019
38. Müller-Oehring EM, Fama R, Pfefferbaum A, **Pohl KM**, Brontë-Stewart, Poston KL, Pradhakar V, Sullivan EV, Schulte T: The role of age and lifetime alcohol consumption on regional brain volumes for executive control and motor function in HIV infection: A comparison with Parkinson's disease, *42nd Annual Research Society on Alcoholism Scientific Meeting*, 2019

39. Zahr NM, Saranathan M, **Pohl KM**, Sullivan EV, Pfefferbaum A: Thalamic substructures in HIV: Volume deficits and Correlates. 25th Scientific Conference of the Society on NeuroImmune Pharmacology, 2019
40. Adeli E, **Pohl KM**: Identifying Disease Comorbidity Brain Patterns, *Stanford Neuroscience Institute Symposium*, 2018
41. Honnorat N, Adeli E, Pfefferbaum A, Sullivan EV, **Pohl KM**: Cardinality Constrained Functional Connectivity Estimation to Quantify Neurodevelopment, *Stanford Neuroscience Institute Symposium*, 2018
42. Honnorat N, Adeli E, Pfefferbaum A, Sullivan EV, **Pohl KM**: Cardinality Constrained Functional Connectivity Estimation to Quantify Neurodevelopment, *SRI International*, 2018
43. Zahr NM, **Pohl KM**, Saranathan M, Sullivan EV, Pfefferbaum A: Hippocampal subfield CA2+3 is sensitive to age-by-alcoholism interactions. Annual meeting of the American College of Neuropsychopharmacology, 2018
44. Zahr NM, Kwon D, **Pohl KM**, Sullivan EV, Pfefferbaum A: CNS correlates of HIV-associated peripheral neuropathy and postural instability, 24th Scientific Conference of the Society on NeuroImmune Pharmacology, 2018
45. Zahr NM, Kwon D, **Pohl KM**, Sullivan EV, Pfefferbaum A: Regional brain volumes in HIV infection, alcohol use disorders, and hepatitis C. *Annual Meeting of the Society for Neuroscience*, 2017
46. Zahr NM, Kwon D, **Pohl KM**, Sullivan EV, Pfefferbaum A: Peripheral TNF levels correlate with hippocampal volume in alcoholism but not in HIV infection. *Annual Meeting of the American College of Neuropsychopharmacology*, 2017
47. Goldstone A, Willoughby AR, de Zambotti M, Franzen PL, **Pohl KM**, Pfefferbaum A, Sullivan EV, Müller-Oehring EM, Prouty D, Kwon D, Hasler B, Clark DB, Corain IM, Baker FC (2017): The mediating effect of brain structure on sleep slow wave activity during adolescence. *Annual Meeting of the Sleep Society*, 2017
48. Kwon D, Pfefferbaum A, Sullivan EV, **Pohl KM**: Dense statistics on cortical thickness and myelin reveals adolescent brain development, *Annual Meeting of the Organization of Human Brain Mapping*, 2017
49. Pfefferbaum A, Nagel BJ, Müller-Oehring EM, Sullivan EV, **Pohl KM**: Harmonization of multimodal neuroimaging to examine age, sex, and alcohol-related changes in brain structure through adolescence and young adulthood. 40th Annual Meeting of the Research Society on Alcoholism, 2017
50. Pfefferbaum A, Sullivan EV, **Pohl KM**: Use of multimodal neuroimaging techniques to examine age, sex, and alcohol-related changes in brain structure through adolescence and young adulthood. *Annual meeting of the American Psychiatric Association*, 2017
51. Müller-Oehring EM, Kwon D, Nagel BJ, Sullivan EV, Chu W, Rohlfing T, Prouty D, Nichols BN, Poline JB, Tapert SF, Brown SA, Cummins K, Brumback T, Colrain IM, Baker FC, De Bellis MD, Voyvodic J, Clark DB, Pfefferbaum A, **Pohl KM**: Functional brain networks related to sex, age, and alcohol in adolescence: Initial resting-state fMRI findings from NCANDA, 39th Annual Meeting of the Research Society on Alcoholism, 2016
52. Clark DB, Brumback T, Chung T, De Bellis MD, Colrain IM, Baker FC, Nagel BJ, Pfefferbaum A, Sullivan EV, **Pohl KM**, Tapert SF, Brown SA: Executive functioning and risks for alcohol use disorder: Baseline results from NCANDA, 39th Annual Meeting of the Research Society on Alcoholism, 2016
53. Nichols BN, Brown SA, Clark DB, Colrain IM, De Bellis MD, Nagel BJ, Pfefferbaum A, Sullivan EV, Tapert SF, **Pohl KM**: NCANDA--A prospective longitudinal and multisite neuroimaging study and adolescent brain development and alcohol use, *Annual Meeting of the Society for Biological Psychiatry*, 2016
54. Sassoon SA, Chu W, Fama R, Prouty D, Tapert SF, Brown SA, Baker FC, Clark DB, Colrain IM, De Bellis MD, Bagel BJ, **Pohl KM**, Pfefferbaum A, Sullivan EV: Visuospatial construction and memory in adolescence: Relations with age, sex, alcohol drinking and organizational strategy, *Annual Meeting of the International Neuropsychological Society*, 2016
55. Pfefferbaum A, **Pohl KM**, Brown SA, Tapert SF, Clark DB, De Bellis MD, Nagel B, Colrain IM, Baker FC, Sullivan EV: Age, sex, drinking, and the adolescent brain: Initial findings from the National Consortium on Alcohol and NeuroDevelopment in Adolescence. *European Society for Biomedical Research on Alcoholism*, 2015
56. Tapert SF, Brumback T, Tomlinson K, Cummins K, Baker FC, Clark DB, Colrain IM, De Bellis MD, Nagel B, Chu W, Rohlfing T, **Pohl KM**, Sullivan EV, Pfefferbaum A, Brown SA: National Consortium on Alcohol

& NeuroDevelopment in Adolescence: Characterization of the sample, *38th Annual Meeting of the Research Society on Alcoholism*, 2015

57. Pfefferbaum A, Rohlfing T, Brown SA, Tapert SF, Clark DB, De Bellis MD, Nagel B, Colrain IM, Baker FC, **Pohl KM**, Sullivan EV: Differences in adolescent brain cortex related to age and sex: Initial findings from National Consortium on Alcohol & NeuroDevelopment in Adolescence, *38th Annual Meeting of the Research Society on Alcoholism*, 2015
58. **Pohl KM**, Rohlfing T, Brown SA, Tapert SF, Clark DB, De Bellis MD, Nagel B, Colrain IM, Baker FC, Sullivan EV, Pfefferbaum A: Age-related differences in adolescent brain microstructure: Initial findings from National Consortium on Alcohol & NeuroDevelopment in Adolescence, *38th Annual Meeting of the Research Society on Alcoholism*, 2015
59. Baker FC, Hasler B, Colrain IM, Clark DB, De Bellis MD, Nagel B, Brown SA, Rohlfing T, **Pohl KM**, Nichols BN, Chu W, Hooper SR, Prouty D, Fama R, Pfefferbaum A, Tapert SF, Sullivan EV: Age & sex differences in cognitive, motor & sleep indices: Initial findings of the National Consortium on Alcohol & NeuroDevelopment in Adolescence, *38th Annual Meeting of the Research Society on Alcoholism*, 2015

PATENTS

Validation of Ingested Data for Smart Analytics Applications
US 2012/0197848 A1
Bhagwan V, Grandison T, Gruhl D, **Pohl KM**

PUBLICLY AVAILABLE SOFTWARE

Algorithms Accompanying Publications

	Initial Release
Li B et al.: Integrating Anatomical Priors into a Causal Diffusion Model, <i>IEEE Transactions on Medical Imaging</i> , 2026 https://github.com/AndyCA111/PCGM	2026
Li M, et al.: Modality-Aware and Anatomical Vector-Quantized Autoencoding for Multimodal Healthy Brain MRI, <i>Findings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition</i> https://github.com/mlil0117/NeuroQuant	2026
Sun P et al.: Evaluation of 3D Counterfactual Brain MRI Generation, <i>Deep Generative Models</i> https://github.com/pengwei2000/counterfactual_3DMRI	2025
Wang AQ et al.: Generating Novel Brain Morphology by Deforming Learned Templates, <i>Medical Image Computing and Computer Assisted Intervention Lecture Notes in Computer Science</i> https://github.com/alanqrwang/morphldm	2025
Endo M et al.: Data-Driven Parkinson's Disease Subtyping and Digital Biomarker Discovery, <i>Correlating Video-Captured Gait with rs-fMRI Brain Connectivity</i> https://github.com/markendo/PD-Subtyping-Motion-Brain	2024
Gonzales C et al.: SpaRG - Sparsely Reconstructed Graphs for Generalizable fMRI Analysis, <i>Machine Learning in Clinical Neuroimaging</i> https://github.com/yanismiraoui/SpaRG	2024
Peng W et al.: Generating Realistic Brain MRIs via a Conditional Diffusion Probabilistic Model, <i>Medical Image Computing and Computer Assisted Intervention</i> https://github.com/Project-MONAI/GenerativeModels	2023
Ouyang J et al.: LSOR: Longitudinally-Consistent Self-Organized Representation Learning, <i>Medical Image Computing and Computer-Assisted Intervention</i> https://github.com/Project-MONAI/GenerativeModels	2023
Wang Y et al.: Imputing Brain Measurements Across Data Sets via Graph Neural Networks, <i>Predictive Intelligence in Medicine</i> https://github.com/Wangyixinxin/DAGI	2023

- Nerrise F et al.: An Explainable Geometric-Weighted Graph Attention Network for Identifying Functional Networks Associated with Gait Impairment, *Medical Image Computing and Computer-Assisted Intervention* <https://github.com/Wangyixinxin/DAGI> 2023
- Kang M et al.: One-shot Federated Learning on Medical Data using Knowledge Distillation with Image Synthesis and Client Model Adaptation, *Medical Image Computing and Computer-Assisted Intervention* <https://github.com/myeongkyunkang/FedISCA> 2023
- Singla A et al.: Multiple Instance Neuroimage Transformer, *Predictive Intelligence in Medicine*, <https://github.com/singlaayush/minit> 2022
- Paschali M et al.: Bridging the Gap Between Deep Learning and Hypothesis-Driven Analysis via Permutation Testing, *Predictive Intelligence in Medicine* https://github.com/MaggiePas/Permutations_MICCAIPRIME2022 2022
- Endo M et al.: GaitForeMer: Self-Supervised Pre-Training of Transformers via Human Motion Forecasting for Few-Shot Gait Impairment Severity Estimation, *Medical Image Computing and Computer Assisted Intervention* <https://github.com/markendo/GaitForeMer> 2022
- Vento A et al.: A Penalty Approach for Normalizing Feature Distributions to Build Confounder-Free Models, *Medical Image Computing and Computer Assisted Intervention* <https://github.com/vento99/PMDN> 2022
- Li et al.: Joint Graph Convolution for Analyzing Brain Structural and Functional Connectome *Medical Image Computing and Computer Assisted Intervention* https://github.com/Li-Yueting/brain_gcn 2022
- Ouyang J et al.: Disentangling Normal Aging from Severity of Disease via Weak Supervision on Longitudinal MRI, *IEEE Transactions on Medical Imaging* <https://github.com/ouyangjiahong/longitudinal-direction-disentangle> 2022
- Butskova A et al.: Adversarial Bayesian Optimization for Quantifying Motion Artifact within MRI, *Predictive Intelligence in Medicine* <https://github.com/anastasb/MRI-Motion-Artifact-Quantification> 2021
- Ouyang J et al.: Self-Supervised Longitudinal Neighbourhood Embedding, *Medical Image Computing and Computer-Assisted Intervention* <https://github.com/ouyangjiahong/longitudinal-neighbourhood-embedding> 2021
- Zhao Q, et al.: Longitudinal Correlation Analysis for Decoding Multi-Modal Brain Development, *Medical Image Computing and Computer-Assisted Intervention* <https://github.com/QingyuZhao/LCA> 2021
- Lu M et al.: Metadata Normalization, *Conference on Computer Vision and Pattern Recognition* <https://github.com/mlu355/MetadataNorm> 2021
- Zhao Q et al: Longitudinal Self-Supervised Learning, *Medical Image Analysis* <https://github.com/ZucksLiu/LSSL> 2021
- Liu Z et al: Going Beyond Saliency Maps: Training Deep Models to Interpret Deep Models, *Information Processing in Medical Imaging* <https://github.com/ZucksLiu/DeepInterpret> 2021
- Ouyang J et al.: Representation Disentanglement for Multi-modal MR Analysis, *Information Processing in Medical Imaging* <https://github.com/ouyangjiahong/representation-disentanglement> 2021

- Adeli E, et al.: Representation Learning with Statistical Independence to Mitigate Bias, *IEEE/CVF Winter Conference on Applications of Computer Vision* 2021
<https://github.com/QingyuZhao/BR-Net>
- Adeli, E et al.: Deep Learning Identifies Morphological Determinants of Sex Differences in the Pre-Adolescent Brain, *NeuroImage* 2020
<https://github.com/QingyuZhao/Confounder-Aware-CNN-Visualization>
https://github.com/eadeli/ABCD_SexDiff
- Lu M et al.: Quantifying Parkinson's Disease Motor Severity Under Uncertainty Using MDS-UPDRS Videos, *Medical Image Analysis* and
 Lu et al.: Vision-based Estimation of MDS-UPDRS Gait Scores for Assessing Parkinson's Disease Motor Severity, *Medical Image Computing and Computer-Assisted Intervention* 2020
<https://github.com/mlu355/PD-Motor-Severity-Estimation>
- Gadgil et al: Spatio-Temporal Graph Convolution for Functional MRI Analysis, *Medical Image Computing and Computer-Assisted Intervention* 2020
https://github.com/sgadgil6/cnslab_fmri
- Ayub et al.: Inpainting Cropped Diffusion MRI using Deep Generative Models, *3rd Workshop on Predictive Intelligence in Medicine* 2020
<https://github.com/RdoubleA/DWI-inpainting>
- Adeli et al.: Logistic Regression Confined by Cardinality-Constrained Sample and Feature Selection, *IEEE Transactions on Pattern Analysis And Machine Intelligence* 2019
https://github.com/eadeli/sfs_I0
- Adeli et al.: Novel Machine Learning Identifies Brain Patterns Distinguishing Diagnostic Membership of Human Immunodeficiency Virus, Alcoholism, and Their Comorbidity of Individuals, *Biological Psychiatry: CNMI* 2019
http://stanford.edu/~eadeli/publications/codes/JFSS_Simplex.zip
- Zhao et al.: Confounder-Aware Visualization of ConvNets, *International Workshop on Machine Learning in Medical Imaging* 2019
<https://github.com/QingyuZhao/Confounder-Aware-CNN-Visualization>
- Zhao et al.: Variational Autoencoder for Regression: Application to Brain Aging Analysis, *Medical Image Computing and Computer-Assisted Intervention* 2019
<https://github.com/QingyuZhao/VAE-for-Regression>
- Zhao et al.: Variational autoencoder with truncated mixture of gaussians for functional connectivity analysis, *International Conference on Information Processing in Medical Imaging*, 2019
<https://github.com/QingyuZhao/TruncatedGaussianMixtureVAE>
- Zhao et al.: Longitudinally Consistent Estimates of Intrinsic Functional Networks, *Human Brain Mapping* 2019
<https://github.com/sibis-platform/L-ICA-for-longitudinal-rs-fMRI-Analysis>
- Adeli et al.: Chained Regularization for Identifying Brain Patterns Specific to HIV Infection, *NeuroImage* 2018
<http://stanford.edu/~eadeli/publications/codes/KFSMMC.zip>
- Adeli et al.: Multi-Label Transduction for Identifying Disease Comorbidity Patterns, *Medical Image Computing and Computer Assisted Intervention* 2018
http://stanford.edu/~eadeli/publications/codes/MC_NonNeg%20Demo.zip
- Zhao et al.: A Riemannian Framework for Longitudinal Analysis of Resting-State Functional Connectivity, *Medical Image Computing and Computer-Assisted Intervention* 2018
<https://github.com/QingyuZhao/A-Riemannian-Framework-for-Longitudinal-Analysis-of-Resting-State-Functional-Connectivity>

Software Packages	2021
Medical Image Quality Assurance (MIQA):	
Description: leveraging modern UI/UX and deep learning techniques to advance visual quality control of medical images	
Distribution: https://miga.kitware.com	
Role: Tester	2016
Scalable Informatics for Biomedical Imaging Studies (SIBIS)	
Description: SIBIS consists of IT infrastructure for uploading behavioral and imaging data through application programming interfaces to a central biomedical data repository, querying the data through a web interface, a validated workflow to perform quality control, and a multi-modal image processing pipeline.	
Distribution: https://github.com/sibis-platform	
Role: Developer & Supervisor	2015
Sviewer	
Description: 3D+t viewer based on 3D Slicer technology	
Distribution: https://github.com/sibis-platform/viewer	
Role: Developer	2012
BASIS	
Description: Development environment accompanying tools for testing and packaging software across platforms and languages	
Distribution: http://www.rad.upenn.edu/sbia/software/doxygen/basis/1.2/html	
Role: Supervisor	2011
AtlasCreator	
Description: Automatically extracts cohort specific data from set of training images	
Distribution: 3DSlicer (http://slicer.org)	
Role: Supervisor	2011
GLISTR	
Description: First automatic tool for segmenting glioma and healthy tissue from MR brain scans	
Distribution: https://www.rad.upenn.edu/sbia/projects/glistr.html	
Role: Supervisor	2010
SceneView	
Description: Graphical browser for scenes saved in 3D Slicer	
Distribution: 3DSlicer (http://slicer.org)	
Role: Supervisor	2010
Annotation	
Description: A tool for annotating medical scans using state-of-the-art 2D and 3D	
Distribution: 3DSlicer (www.slicer.org)	
Role: Developer, Supervisor	2008
Change Tracker	
Description: Semi-automatic tool for quantification of the subtle changes in pathology	
Distribution: 3DSlicer (www.slicer.org)	
Role: Developer	2003
EMSegmenter	
Description: An advanced MRI segmentation tool	
Distribution: 3DSlicer (www.slicer.org)	
Role: Developer, Supervisor	

PUBLICLY AVAILABLE DATA (before mandated by NIH in 2024)**National Consortium on Alcohol and NeuroDevelopment in Adolescence****Release**

Pohl, K.M., Sullivan EV, Podhajsky S, Baker FC, Brown SA, Clark DB, de Zambotti M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum A.: The NCANDA PUBLIC 7Y COVID REDCAP V03 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Sullivan EV, Podhajsky S, Baker FC, Brown SA, Clark DB, de Zambotti M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum A.: The NCANDA PUBLIC 7Y COVID REDCAP V02 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse, 2023.	2023
Pohl, K.M., Sullivan EV, Podhajsky S, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum A.: The NCANDA PUBLIC 7Y COVID REDCAP V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl KM, Sullivan EV, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum A: The NCANDA PUBLIC 6Y STRUCTURAL V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl KM, Sullivan EV, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum A: The NCANDA PUBLIC 6Y RESTINGSTATE V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Sullivan, E.V., Podhajsky S, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum, A.: The NCANDA PUBLIC 6Y REDCAP V04 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Sullivan, E.V., Podhajsky S, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum, A.: The NCANDA PUBLIC 6Y REDCAP V03 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Sullivan, E.V., Podhajsky S, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum, A.: The NCANDA PUBLIC 6Y REDCAP V02 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Cummins K, Henthorn T, Pohl KM, Sullivan EV, Podhajsky S, Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum A: The NCANDA PUBLIC 6Y MOBILE V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Podhajsky S., Sullivan, E.V., Pfefferbaum, A.: The NCANDA PUBLIC 5Y STRUCTURAL V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Sullivan, E.V., Podhajsky S., Baker FC, Brown SA, Clark DB, Colrain IM, DeBellis M, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum, A.: The NCANDA PUBLIC 5Y REDCAP V02 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Podhajsky, S., Sullivan, E.V., Pfefferbaum, A.: The NCANDA PUBLIC 5Y REDCAP V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023
Pohl, K.M., Podhajsky S., Sullivan, E.V., Pfefferbaum, A.: The NCANDA PUBLIC 4Y RESTINGSTATE V01 Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse	2023

- Pohl K.M., Sullivan EV, Podhajsky S., Baker FC, Brown SA, Clark DB, Colrain IM, Goldston D, Nagel BJ, Nooner KB, Tapert SF, Pfefferbaum, A.: The [NCANDA PUBLIC 4Y REDCAP V02](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse 2023
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 4Y REDCAP V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2022
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 4Y STRUCTURAL V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2022
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: [The NCANDA PUBLIC 4Y DIFFUSION V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2022
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 3Y REDCAP V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 3Y STRUCTURAL V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 2Y RESTINGSTATE V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 2Y STRUCTURAL V02](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Podhajsky, S., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 1Y REDCAP V02](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Podhajsky, S., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 1Y STRUCTURAL V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Podhajsky, S., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 1Y RESTINGSTATE V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Podhajsky S., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 1Y DIFFUSION V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2020
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 2Y STRUCTURAL V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2018
- Pohl, K.M., Podhajsky, S., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC 1Y REDCAP V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2018
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC BASE REDCAP V02](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2018
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC BASE REDCAP V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2017
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC BASE STRUCTURAL V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2017

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- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC BASE DIFFUSION_V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2017
- Pohl, K.M., Sullivan, E.V., Pfefferbaum, A.: The [NCANDA PUBLIC BASE RESTINGSTATE_V01](#) Data Release of the National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA), Sage Bionetworks Synapse. 2017
- 2019

ABCD Neurocognitive Prediction Challenge 2019

Pohl, K.M., Thompson, W.K., Adeli, E.: [ABCD-NP-Challenge 2019](#), NIH NDAR Portal

COURSES

2024

PSYC 121/ PSYC 221/ BIODS 227: Machine Learning for Neuroimaging
Primary Instructor, Department of Psychiatry
Stanford University, Stanford, CA; Fall

2023

PSYC 121/ PSYC 221/ BIODS 227: Machine Learning for Neuroimaging
Primary Instructor, Department of Psychiatry
Stanford University, Stanford, CA; Fall

2022

PSYC 121/ PSYC 221/ BIODS 227: Machine Learning for Neuroimaging
Primary Instructor, Department of Psychiatry
Stanford University, Stanford, CA; Fall

2004

Mathematics for Computer Science
*Teaching Assistant, Department of Computer Science,
Massachusetts Institute of Technology, Cambridge, MA; Fall*

1996

Introductory Calculus
Department of Mathematics, University of Karlsruhe, Germany; Spring

1995

Advanced Calculus
Department of Mathematics, University of Karlsruhe, Germany; Fall

MENTORING

PhD Thesis Advisor

Sarah Grace Sanderson, Bioengineering, Stanford University	2026 – present
Favour Nerrise, Electrical Engineering, Stanford University	2023 – present
Primary supervisor: Ehsan Adeli	
Yixin Wang, Biomedical Engineering, Stanford University	2023 – present
Jiahong Ouyang, Electrical Engineering, Stanford University	2020 – 2024
Current Position: Lead Clinical Machine Learning Scientist, insitro	
Dong Hye Ye, Bioengineering, University of Pennsylvania (graduated August 2013)	2010 – 2013
Current Position: Associate Professor, Georgia State University	

Chair of PhD Thesis Oral Exam

Rastko Ciric, Department of Bioengineering, Stanford University	2024
Jinxiao Zhang, Department of Psychology, Stanford University	2023

PhD Thesis Reviewer

Meva Himmetoglu, Department of Computer Science, ETH Zurich	2022 - present
Mengwei Ren, Department of Computer Science, New York University	2022 - 2023
Niharika Shimona D'Souza, Electrical and Computer Engineering, John Hopkins University	2021
Rowa Aljondi, Department of Medicine and Radiology, University of Melbourne	2018
Volker Gerhard Daum, Department of Computer Science, University of Erlangen-Nuermberg	2011

PhD Qualifier

Jocelyn Ricard, Neurosciences PhD Program, Stanford	2025
Chase Antonacci, Neurosciences PhD Program, Stanford	2025
Yixin Wang, Bioengineering Department, Stanford	2024
Akshita Rao, Bioengineering Department, Stanford	2024
Gustavo Santiago-Reyes, Bioengineering Department, Stanford	2024

Trainee Name	Level of Training	Current Position	Training Period
Kalin Salinas, Ph.D.	Postdoctoral Fellow	Postdoctoral Fellow, Stanford	2025 – present
Joseph Dehoney	Master Student		2024 – present
Mingjie Li, Ph.D.	Postdoctoral Fellow	Associate Professor, Shanghai Jiao Tong University	2025 – 2026
Camila Gonzales, Ph.D.	Postdoctoral Fellow	Assistant Professor, Medical University of Vienna	2023 – 2025
Wei Peng, Ph.D.	Postdoctoral Fellow	Research Scientist, Meta	2022 – 2025
Ehsan Adeli, Ph.D.	Postdoctoral Fellow	Assistant Professor, Stanford	2017 – 2023
Magdalini Paschali, Ph.D.	Postdoctoral Fellow	Postdoctoral Fellow, Stanford	2022 – 2023
Qingyu Zhao, Ph.D.	Postdoctoral Fellow	Assistant Professor, Cornell	2017 – 2023
Uran Ferizi, Ph.D.	Research Scientist	Albanian Ambassador to UK & Ireland	2020 – 2022
Nicolas Honnorat, Ph.D.	Research Scientist	Instructor, University of Texas Health Science Center at San Antonio	2018 – 2021
Dongjin Kwon, Ph.D.	Postdoctoral Fellow	Software Engineer, Google	2012 – 2018
Mahnaz Maddah, Ph.D.	Consultant	Managing Member, Dana Solutions	2017
Sang Hyun Park, Ph.D.	Postdoctoral Fellow	Assistant Professor, Pohang University of Science and Technology, South Korea	2016 – 2017
Nolan Nichols, Ph.D.	Postdoctoral Fellow	Bioinformatics Software Engineer, Genentech	2015 – 2016
Yong Zhang, Ph.D.	Postdoctoral Fellow	Data Scientist, Istuary Innovation Group	2014 – 2016
Elena Bernardis, Ph.D.	Postdoctoral Fellow	Assistant Research Professor, University of Pennsylvania	2012 – 2014
Dong Hye Ye, Ph.D.	Graduate Student	Associate Professor, Georgia State University	2010 – 2014
Birkan Tunc, Ph.D.	Postdoctoral Fellow	Research Assistant Professor, University of Pennsylvania	2012 – 2013
Yangming Ou, Ph.D.	Graduate Student	Associate Professor, Harvard Medical School	2011 – 2013
Bilwaj Gaonkar, Ph.D.	Graduate Student		2010 – 2013
Chunming Li, Ph.D.	Postdoctoral Fellow	Professor of Electrical Engineering, University of Electronic Science and Technology of China	2010 – 2012
Ender Konukoglu, Ph.D.	Graduate Student	Associate Professor, ETH Zurich	2007 – 2012
Ali Gooya, Ph.D.	Postdoctoral Fellow	Senior Lecturer, University Glasgow	2010 – 2012
Yong Zhang, Ph.D.	Postdoctoral Fellow	Associate Professor, Weber State University	2010
Andrey Fedorov, Ph.D.	Postdoctoral Fellow	Associate Professor, Harvard Medical School	2008 – 2010
Software Engineer			
Greg Mc Cain	Senior Software Engineer	Senior Software Engineer, SRI International	2025 – present
James Klo	Senior Software Engineer	Senior Software Engineer, SRI International	2018 – present
Joseph Dehoney	Research Data Analyst	Master Student, Stanford University	2022 – 2024
Simon Podhajsky	Data Manager	Data Manager, SRI International	2018 – 2022

Ramon Quitales, MS	Software Engineer	Software Engineering Lead, Landed	2018 – 2019
Michael Hasak, BS	Senior Software Engineer	Senior Software Engineer, SRI International	2017 – 2018
Sara Benito, BS	Biomedical Software Engineer	Software Test Engineer, Heat Flow Inc.	2016 – 2017
Daniel Cuneo, BS	Research Associate II	ALS Control Systems Engineer, Lawrence Berkeley National Lab	2014
Andreas Schuh, Ph.D.	Software Engineer	PhD Student, Imperial College London	2010 – 2012
Daniel Haehn, MS	Software Engineer	Assistant Professor, University of Massachusetts – Boston	2010 – 2011
Dominique Belhachemi, MS	Software Engineer	Software Engineer, Life Technologies Corporation	2010 – 2011
Data Analyst			
Stephanie Sassoon, PhD	Senior Clinical Research Scientist	Stanford	2023 – present
William Chen	Research Data Analyst	Stanford	2025
Sangeeta Mondal, BS	Data Scientist	Stanford	2019 – 2021
Lisa Jack, BS	Assistant Director	SRI International	2017 – 2020
Administrator			
Jordan Hogg	Administrator	Stanford	2025 – present
Pippa Kennard	Program Manager	Stanford	2025 – present
Haopeng Xue	Research Administrator	Stanford	2025 – present
Research Assistant			
Griffin Young	CS Master Student		2022
Vishal Mohanty	CS Master Student		2021 – 2022
Sudeep Narala	EE Master Student		2021
Chris Pondoc	CS Undergraduate		2020 – 2021
Euirim Choi, BS	Master Student, CS	Frontend Engineer, TikTok	2020 – 2021
Jacqueline H. Yau, BS	Master Student, CS	Machine Learning Engineer, Apple	2020
Eric Yang, BS	Master Student, EE	Autonomous Driving Software Engineer, NVIDIA	2020
Jonathan Li	Coterm Student, CS	Software Engineer, Facebook	2019
Student Intern			
Mario David Portillo		Undergraduate, CS	2026 – present
Juli Huang		Undergraduate, CS	2026 – present
Raina Song		Master Student, EE	2026 – present
June Zheng		Master Student, ICME	2026 – present
Chase Antonacci		PhD Student, Neuroscience	2024 – present
Binxu Li	Master Student, EE		2023 – 2026
Eric Xia	Master Student, CS		2025
Edward Kim	Master Student, CS		2025
Robbie Fraser	Master Student, SSP		2025
Pengwei Sun	PhD Student, BMP		2025
Linika Goel	PhD Student, BMP		2025
Anish Chaudhuri	Master Student, CS		2025
Lara Selin Seyahi	Master Student, CS		2025

Jiaqi Wu	Master Student, BIOE		2024 – 2025
Tomas Bosschieter	Master Student, CME		2023 – 2025
Felipe Godoy	Master Student, STAT		2022 – 2024
Jocasta Manasseh-Lewis	Master Student, BE		2021 – 2024
Liuxin Yang	Master Student, EE		2024 – 2024
Tulika Jha	Master Student, EE		2024
Raymond Suo	Undergraduate, MATH		2024
Yanis Najy Miraoui	Master Student, STAT		2023
Alex Thiesmeyer	Master Student, STAT		2023
Yiran Fan	Master Student, STAT		2023
Timothy Yao	Master Student, STAT		2023
Brent Ju	Undergraduate, CS		2023
Emily Wesel	Undergraduate, CS		2023
Mary Fetter	Undergraduate, CS		2023
Eric Frankel	Undergraduate, MATH		2023
Mark Endo	Undergraduate, CS		2022 – 2023
Ayush Singla	Undergraduate, CS		2022 – 2023
Bhargav Dindukurthi	Master Student, MSE		2022
Julian Quevedo	Undergraduate, CS	Software Engineer, Amazon	2022
Navami Jain	Undergraduate, CS	Software Engineer, Amazon	2022
Ibrahim Gulluk	PhD Student, EE	Senior Data Scientist, Natera	2022
Nibha Akireddy	Master Student, EE	PhD Student, Uni. of Washington	2022
Megan Backus	Master Student, EE	Software Engineer, Google	2022
Pankhuri Aggarwal	Master Student, DS	Chief Operating Officer, WeAsk	2022
Naijing Guo	Master Student, BIOE	Software Engineer, Microsoft	2022
Hui Lan	Master Student, CME	Software Engineer, Microsoft	2022
Shunyao Xu	Master Student, EE		2022
Wenna Qin	Master Student, STAT	PhD Student, Stanford	2022
Anthony Vento	Master Student, EE		2021 – 2022
Yueting Li	Master Student, EE		2021 – 2022
Edwin Pan	Master Student, EE		2021 – 2022
Kevin Wang	Master Student, CS		2021 – 2022
Itamar Terem	PhD Student, EE		2021
Meng-Jin Lin	Master Student, EE		2021
Joseph Pagadora	Master Student, STAT		2021
Rain Juhl	Undergraduate, CS		2021
Daniel Do, BS	Master Student, CS		2021
Anastasia V. Butskova	Master Student, Stat		2021
Zucks Liu, BS	Master Student, EE		2020 – 2021
Mandy Lu	Coterm Student, CS		2020 – 2021
Jiequan Zhang, BS	Master Student, ME		2020 – 2021
Soham Uday Gadgil, BS	Master Student, CS		2020
Rafi Ayub, BS	Master Student, BE		2020
Yuan Liu, BS	Master Student, Stat		2020
Rui Yan, BS	Master Student, CME		2020

Visiting Scholar

Heejung Park	PhD Student, Daegu Gyeongbuk Institute of Science & Technology	2024
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Wonhyuk Choi	PhD Student, Daegu Gyeongbuk Institute of Science & Technology	2024
Myeongkyun Kang	PhD Student, Daegu Gyeongbuk Institute of Science & Technology	2023
Soopil Kim	PhD Student, Daegu Gyeongbuk Institute of Science & Technology	2023
Lars Hauptmann	Master Student, ETH Zurich	2023
Guoying Zhao	Professor, University of Oulu	2022 – 2023
Magdalini Paschali	PhD Student, Technische Universität München	2020 – 2021
Jungmin Yoon, BS	Medical Doctor Candidate, University of British Columbia	2020 – 2021
Mohammad Eslami	Postdoctoral Fellow, Florida International University	2020
Tuo Leng, PhD	Associate Professor, Shanghai Univ.	2018 – 2019

GRANTS AWARDED TO MENTEES

Listed are awards where I serve as mentor

NIH/NIAAA K99/R00 AA028840	(PI: Zhao)	08/21 – 07/26
Title:	Longitudinal Analysis of Diffusion Tensor Imaging to Discover Adolescent Alcohol Use Effect	
Agency:	National Institute of Health	
Role:	Mentor	
NARSAD Young Investigator	(PI: Zhao)	01/24 – 01/26
Title:	Neural and behavioral risk factors to forecast heavy drinking in young adulthood: Role of sex and adverse childhood experiences	
Agency:	Brain & Behavior Research Foundation	
Role:	Mentor	
NIH/NIAAA F32 AA026762	(PI: Adeli)	07/18 – 11/19
Title:	Identifying Patterns of Cognitive, Motor, and Brain Structural Abnormalities Differentiating Alcohol Use Disorder With and Without HIV Infection Comorbidity	
Agency:	National Institute of Health	
Role:	Mentor	

HONORS AWARDED TO MENTEES

Listed are awards by mentees that were given by Stanford or are based on joined publications

Chase Antonacci	2026 Stanford Interdisciplinary Graduate Fellowship (SIGF)	2026
Yixin Wang	Bioengineering Departmental Teaching Assistant Award	2025
Yixin Wang	Mind, Brain, Computation and Technology (MBCT) Student Membership Program	2025
Favour Nerrise	Three Minute Thesis (3MT) Competition Grand Prize, Stanford	2025
Yixin Wang	The Bio-X Travel Award, Stanford	2025
Alice Heiman	Endeavour Women in Tech Scholarship	2024
Yixin Wang	The Mind, Brain, Computation and Technology Student Membership Program, Wu Tsai Neurosciences Institute, Stanford	2024
Camila Gonzales	Pathways to Neurosciences, Wu Tsai Neurosciences Institute, Stanford	2023
Ehsan Adeli	Educational Excellence Award, <i>Department of Psychiatry and Behavioral Sciences, Stanford University</i>	2023

Qingyu Zhao	Advancing Science Award, <i>Department of Psychiatry and Behavioral Sciences, Stanford University</i>	2022
Tomas Bosschieter	Best Course Assistant Award <i>Institute for Computational and Mathematical Engineering, Stanford University</i>	2023
Favour Nerrise	Student Travel Award <i>Medical Image Computing and Computer-Assisted Intervention (MICCAI)</i>	2023
Ehsan Adeli	Faculty Professional & Leadership Development Award, <i>Department of Psychiatry and Behavioral Sciences, Stanford University</i>	2022
Qingyu Zhao	Innovator Grant Award <i>Department of Psychiatry and Behavioral Sciences, Stanford University</i>	2022
Mark Eric Endo	Special Recognition Award for Outstanding Psychiatric Research <i>Department of Psychiatry and Behavioral Sciences, Stanford University</i>	2022
Jiahong Ouyang	1 of 15 students short listed for the Young Scientist Award <i>Medical Image Computing and Computer Assisted Intervention (1630 submissions)</i>	2021
Jiahong Ouyang	Student Travel Award <i>Medical Image Computing and Computer-Assisted Intervention (MICCAI)</i>	2021
Ehsan Adeli	Innovator Grant Award <i>Department of Psychiatry and Behavioral Sciences, Stanford University</i>	2021
Jiahong Ouyang	Student Travel Award <i>Medical Image Computing and Computer-Assisted Intervention (MICCAI)</i>	2020
Ehsan Adeli	Stanford ADRC Fellowship Award <i>Stanford Alzheimer's Disease Research Center</i>	2021
Ehsan Adeli	Young Scientist Travel Award <i>Medical Image Computing and Computer Assisted Intervention (MICCAI)</i>	2012
Dong Hye Ye	Student Travel Award <i>IEEE International Symposium on Biomedical Imaging (ISBI)</i>	2012
Dong Hye Ye	Student Travel Award <i>Pattern Recognition in NeuroImaging (PRNI)</i>	2011

GUEST LECTURES

2026

Computational Neuroscience Career Panel
Psychology & Neuroscience Department
University of North Carolina at Chapel Hill, Chapel Hill, CA

2025

Crafting Deep Learning Models for Accelerating Discovery in Psychiatry
AI for Mental Health Seminar
Stanford University, Stanford, CA

Crafting Deep Learning Models for Accelerating Psychiatric Discovery
Department of Psychiatry
University of North Carolina at Chapel Hill, Chapel Hill, CA

Crafting Deep Learning Models for Accelerating Neuroscience Discovery
Course CME 300 Seminar
Stanford University, Stanford, CA

Panel Chair of the session “Shaping the Future of Precision Mental Health with Human-Centered AI”
5th Annual Precision Mental Health Symposium
Stanford University, Stanford, CA

Crafting Deep Learning Models for Accelerating Neuroscience Discovery
Imaging Genetics Center
University of Southern California, Marina del Rey, CA

Crafting Machine Learning Models for Neuroscience Discovery
AIMI Grands Round
School of Medicine, Stanford, CA

2024

Crafting Machine Learning Models for the Discovery of NeuroHIV Biotypes
International NeuroHIV Cure Consortium, General Teleconference Call

Crafting Machine Learning Models for Neuroscience Discovery
2024 IBIS & AIMI Retreat,
School of Medicine, Stanford, CA

Accelerating Neuroscience Discovery using Shared Software and Data
NIH Data Sharing and Reuse Seminar

Office of Data Science Strategy, National Institutes of Health

Crafting Machine Learning Models for Neuroscience Discovery
Electrical Engineering Faculty Lunch,
Department of Electrical Engineering, Stanford, CA

2023

Machine Learning and Learning Machines: A Dialogue
Psychiatry Grand Rounds,
Department of Psychiatry and Behavioral Sciences, Stanford, CA

Advancing Computational Neuroimage Science
AI Colloquium Lecture, Daegu Gyeongbuk Institute of Science & Technology, South Korea

Crafting Machine Learning Models for Neuroscience Discovery
Psychiatry Major Labs Retreat
Department of Psychiatry and Behavioral Sciences, Stanford, CA

2022

Advancing Computational Neuroimage Science
Ances Bioimaging Laboratory, Washington University, St. Louis, MO
Computational Neuroimage Science: From A to Z
Course BMI 260 “Computational Methods for Biomedical Image”,
Stanford University, Stanford, CA; Spring

Machine Learning Applications to Identify, Characterize and Predict NeuroHIV Biotypes
International NeuroHIV Cure Consortium, General Teleconference Call

2021

Advancing Machine Learning Analysis to Improve the Mechanistic Understanding of Neuropsychiatric Disorders

International NeuroHIV Cure Consortium, General Teleconference Call

Training Confounder-free Deep Learning Models for Medical Applications
AIMI Journal Club, Stanford University, Stanford, CA

2020

Computational Neuroscience Laboratory
Major Laboratory Annual Retreat, Stanford University, Stanford, CA

2019

Create a Software Platform for Large Scale Imaging Studies
Course BMI 260 “Computational Methods for Biomedical Image”,
Stanford University, Stanford, CA; Spring

2018

Create a Software Platform for Large Scale Imaging Studies
Course BMI 260 “Computational Methods for Biomedical Image”,
Stanford University, Stanford, CA; Spring

2016

Create a Software Platform for Large Scale Imaging Studies
Course BMI 260 “Computational Methods for Biomedical Image”,
Stanford University, Stanford, CA; Spring

SIBIS: Scalable Informatics for Biomedical Imaging Studies

Department of Tropical Medicine, Burns School of Medicine, University of Hawaii; May

SIBIS: Scalable Informatics for Biomedical Imaging Studies

Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston, MA; February

2015

SIBIS: Scalable Informatics for Biomedical Imaging Studies

Integrative Biomedical Imaging Informatics at Stanford Annual Retreat, Santa Cruz, CA; September

A Shape Representation based on the Logarithm of Odds

Department of Computer Science, Simon Fraser University, Burnaby, British Columbia; July

iMap: Manifold Learning for MRI Phenotype Detection

Course Biomedical Informatics 260, Stanford University, Stanford, CA; Spring

Automatic Identification of Imaging Phenotypes from Cine MRIs

HeartFlow Inc. Redwood City, CA; May

2014

iMap: Manifold Learning for MRI Phenotype Detection

Course Biomedical Informatics 260, Stanford University, Stanford, CA; Spring

Logarithm of Odds for Medical Images Analysis

Divisions of Biostatistics and Bioinformatics, University California - San Francisco; March

2013

Automatic Identification of MRI Phenotypes

Biosciences Seminar, SRI International, Menlo Park, California; August

Automatic Identification of Imaging Phenotypes

Department of Computer Science, IBM Research Almaden, San Jose, CA; March

2012

Image-Based Quantification of Pathologies

Department of Radiology and Biomedical Imaging Research, University of California, San Francisco; September

Identifying Imaging Phenotypes via Advanced Shape Analysis

Neurology Grand Rounds, University of California, San Francisco; August

Automatic Identification of Pathology from 4D Medical Scans

Center for Biomedical Imaging, University of Pennsylvania, Philadelphia, PA; June

Implicit Shape Representations for Medical Images

Center for Imaging Science, John Hopkins University, Baltimore, MA; April

Biomedical Image Analysis

Lecturer, Graduate Course CIS 537-401 2012A,

Department of Computer & Information Science, University of Pennsylvania, Philadelphia, Spring

Computational Sciences in Oncologic Imaging

ACC Radiobiology and Imaging Program Annual Retreat, University of Pennsylvania, Philadelphia; March

Learning to Extract Disease Specific Phenotypes from Medical Scans

Center for Imaging of Neurodegenerative Diseases, Department of Radiology, University of California - San Francisco; February

2011

Automatic Identification of Pathology from Medical Scans

Department of Computer Science, University of Erlangen-Nuermberg, Germany; November

Automatic Cardiac Disease Detection based on Multimodal Medical Data

Radiology Cardiovascular Imaging Research Seminar, University of Pennsylvania; November

Identifying Pathologies from Medical Images

Department of Radiation Oncology, Massachusetts General Hospital, Boston, MA; September

Medical Image Based Biomarkers for Disease Detection

Department of Computer Science, Rutgers University, New Brunswick, NH; August

Computer Reading of Brain Tumor Radiologic Images

Brain Tumor Imaging Retreat, University of Pennsylvania, Philadelphia; June

Identifying Pathologies from Medical Images

Golby Lab Meeting, Brigham and Women's Hospital, Boston, MA; June

Medical Image Based Biomarkers for Disease Detection

Information Sciences in Imaging at Stanford Seminar, Stanford University, Stanford, CA; May

Computational Biology and Visualization

Guest Lecturer, Graduate Course CSE 788, Department of Computer Science and Engineering, Ohio State University, Columbus, OH; Spring

Medical Image Based Disease Markers

Department of Computer Science and Engineering, Ohio State University, Columbus, OH; April

2010

Monitoring Slowly Evolving Tumors

Radiobiology and Imaging Program-Seminar, Department of Radiation Oncology, University of Pennsylvania, Philadelphia; December

Joint Registration and Segmentation

Lecture Series in Bioimaging Sciences, Yale University, New Haven, CT; November

Active Mean Fields: Evolving Curves via an Explicit Probabilistic Representation

GRASP Seminar Series, Department of Computer Science, University of Pennsylvania, Philadelphia; October

Active Mean Fields: Evolving Curves via an Explicit Probabilistic Representation

Department of Computer Science, Technical University of Munich, Germany; October

A Unified Framework for MR Based Disease Classification

Pattern Recognition Lab, University of Erlangen, Germany; September

Active Mean Fields: Evolving Curves via an Explicit Probabilistic Representation

Department of Computer Science, University of North Carolina, Chapel Hill, NC; August

Representing Objects via the Logarithm of Odds

Cardiovascular Imaging & Biomedical Image Computing Retreat, University of Pennsylvania, Philadelphia; May

miAnnotation: An Open Source Software Tool for Annotating Medical Images

Health Care Lunch Talk, IBM Research Almaden, San Jose, CA; May

2009

Decision Support based on 3D Medical Imaging

Health Care Department, IBM Research Almaden, San Jose, CA; December

Representing Objects via the Logarithm of Odds

Pattern Recognition Lab, University of Erlangen, Germany; September

A Unified Framework for MR Based Disease Classification

Functional Imaging Laboratory, University College London, London, Great Britain; September

Representing Objects via the Logarithm of Odds

Martinos Center for Biomedical Imaging, Massachusetts General Hospital, Boston; April

2008

Representing Objects via the Logarithm of Odds

Department of Computer Science, University of Chicago, Chicago IL; December

Decision Support based on 3D Medical Imaging

The Healthcare Lunch Seminar, IBM Research Almaden, San Jose, CA; November

Representing Objects via the Logarithm of Odds

Le Laboratoire de Mathématiques Appliquées aux Systèmes, Ecole Centrale Paris, Paris, France; October

Tools for Processing Medical Images

Medical and Biological Informatics, German Cancer Research Center, Heidelberg, Germany; May
 Incorporating Prior Information into Automatic Segmentation
Allen Institute, Seattle, WA; April

Automatic Tools for Monitoring Brain Tumors

Neuro-Oncology Conference, Dana-Farber Cancer Institute, Boston, MA; March

Representing Objects via the Logarithm of Odds

Minerva Research Group, Georgia Institute of Technology, Atlanta, GA; March

Simple Interface / Powerful Algorithms: Image Segmentation and Legion Measurement Tools for Interdisciplinary Research

National Cancer Institute Advanced Biomedical Computing Center, Fredrick, Maryland; March

Representing Objects via the Logarithm of Odds

Stanford University, The Paik Lab, Stanford, CA; February

A Hierarchical Segmentation Algorithm for Medical Images

Image Processing Seminar, University of California, Irvine; January

Representing Objects via the Logarithm of Odds

Institute for Pure & Applied Mathematics, University of California, Los Angeles; January

2007

Monitoring Brain Tumor Growth

Prostate Group Meeting, Brigham and Women's Hospital, Boston, MA; December

Representing Uncertainty via the Logarithm of Odds

Visualization and Graphics Group, University of California, Santa Cruz; November

Incorporating Prior Information into Automatic MR Brain Segmentation

Center for Imaging of Neurodegenerative Diseases, University of California, San Francisco; October

Solving the Mean Field Approximation in the Level Set Framework via the Logarithm of Odds,

INRIA, Sophia-Antipolis, France; August

Automatic Segmentation of MR Brain Images

Radiology Sciences Laboratory, Stanford University, Stanford, CA; July

Solving the Mean Field Approximation in the Level Set Framework via the Logarithm of Odds

Institute for Mathematics, University of Lübeck, Germany; July

Solving the Mean Field Approximation in the Level Set Framework via the Logarithm of Odds

*Image Processing Seminar, Institute for Pure & Applied Mathematics,
 University of California, Los Angeles; June*

A Hierarchical Segmentation Algorithm for MR Brain Images

Center for Computational Biology, University of California, Los Angeles; May

2006

Logarithm Odds Maps for Shape Representation

*Journal Club, Department of Radiology, Brigham and Women's Hospital,
 Harvard Medical School, Boston, MA; September*

Automatic Segmentation of Medical Images

Vision Seminar, IBM Research Almaden, San Jose, CA; July

Calibrating Slicer's EM Segmenter

National Alliance for Medical Image Computing Summer Project Week, Boston, MA; June

A Shape Representation based on the Logarithm of Odds

*The Stochastic Systems Group Seminar, Laboratory for Information and Decision Systems,
 Massachusetts Institute of Technology, Cambridge, MA; May*

Using Prior Information for the Automatic Segmentation of Medical Images

Vision Seminar, Stanford Vision Science and Neuroimaging Group, Stanford University; April

2005

Combining Registration and Segmentation to Analyze Medical Images

*The Stochastic Systems Group Seminar, Laboratory for Information and Decision Systems,
 Massachusetts Institute of Technology, Cambridge, MA; April*

2004

Anatomical Guided Segmentation with Non-Stationary Tissue Class Distributions in an Expectation-Maximization Framework

*Surgical Planning Lab, Brigham and Women's Hospital,
Harvard School of Medicine, Boston, MA; March*

JOURNAL REVIEW**Editorial Board**

Medical Image Analysis

2017 – present

Senior Editor

Medical Image Analysis

2024 – present

Associate Editor

IEEE Transactions on Medical Imaging

2016 – present

Medical Image Analysis

2021 – 2023

Review Editor

Frontiers in Neuroscience: Brain Imaging Methods

2013 – 2023

Book Editor

ABCD Neurocognitive Prediction Challenge

2019

Springer-Verlag, Lecture Notes in Computer Science, Vol. 11791, 188 pages

Information Processing in Medical Imaging

2013

Springer-Verlag, Lecture Notes in Computer Science, Vol. 7917, 782 pages

Reviewer

Alcohol: Clinical and Experimental Research

Archives of General Psychiatry

Computer Methods and Programs in Biomedicine

Computer Vision and Image Understanding

Computers in Biology and Medicine

Developmental Cognitive Neuroscience

eLife

Experimental Neurology

Human Brain Mapping

IEEE Journal of Biomedical and Health Informatics

IEEE Transactions on Biomedical Engineering

IEEE Transactions on Image Processing

IEEE Transactions on Medical Imaging

IEEE Transactions on Pattern Analysis & Machine Intelligence

International Journal of Computer Vision

Journal of Magnetic Resonance Imaging

Journal of Mathematical Imaging and Vision

Journal of Medical Imaging

Med

Medical Image Analysis

Magnetic Resonance in Medicine

Nature Biomedical Engineering

Nature Communications

Nature Mental Health

Molecular Psychiatry

NeuroImage

Neuroinformatics

Pattern Recognition Letters

Psychiatry Research: Neuroimaging

Scientific Reports

SLEEP

SCIENTIFIC REVIEW**National Institute of Health (NIH)****Chairperson**

ZAA1 DD (08): Review of NOT-AA-23-015: Mentored Clinical Scientist Research Career Development Award Parent K08 April, 2024

NICD: Neuro Informatics, Computational and Data Analysis July, 2026 – present

Acting Chairperson

NICD: Neuro Informatics, Computational and Data Analysis April, 2026 – June, 2026

ZRG1 NICD-H (01): Neuro Informatics, Computational and Data Analysis June, 2025 – January, 2026

ZRG1 NV-H (89): Neuro Informatics, Computational and Data Analysis April, 2025

Member

Neuro Informatics, Computational and Data Analysis Study Section (NICD), Nov, 2025 – June, 2026
Emerging Technologies and Training Neurosciences Integrated Review Group (ETTN)

Ad-Hoc Member

AA-4: Neuroscience and Behavior Study Section Oct, 2024

ZDA1 LXF-E (A1) R: Accelerating the Pace of Drug Abuse Research Using Existing Data May, 2024

ZRG1 BBT-T (55) R: Biomedical Data Repositories and Knowledgebases March, 2024

ZDA1 LXF-E (A1) R: Accelerating the Pace of Drug Abuse Research Using Existing Data June, 2023

ZMH ERB-G(G1): RFP Review: National NeuroHIV Tissue Consortium (NNTC) Clinical Sites and Data Coordination Centers February, 2023

ZDA1 LXF-C (02) R: Accelerating the Pace of Drug Abuse Research Using Existing Data October, 2022

ZDA1 LXF-C (06) R: Mechanistic studies on the impact of social inequality on the substance use trajectory February, 2022

ZRG-1 BST-V-30: S10 Biomedical Research Support Shared Instrumentation Grants November, 2021

ZDA1 GXM-A (06) R: Advancing HIV/AIDS Research through Computational Neuroscience FOA (R01 - Clinical Trial Optional), National Institute on Drug Abuse March, 2021

ZRG1 BST-J(31): PAR Panel: Shared Instrumentation: Bioengineering Sciences and Technologies (S10) November, 2020

EITA: Emerging Imaging Technologies and Applications Study Section The Surgical Sciences, Biomedical Imaging, and Bioengineering IRG October, 2020

EITA: Emerging Imaging Technologies and Applications Study Section The Surgical Sciences, Biomedical Imaging, and Bioengineering IRG February, 2020

BMIT-A: Biomedical Imaging Technology – A, The Surgical Sciences, Biomedical Imaging, and Bioengineering IRG September, 2017

BMIT-A: Biomedical Imaging Technology – A, The Surgical Sciences, Biomedical Imaging, and Bioengineering IRG June, 2017

ZDA1 GXM-A(33): Analytical Tools and Approaches for (Multidimensional) Scholarly Research Assessment and Decision Support in the Biomedical Enterprise February, 2017

BDMA: The Biodata Management and Analysis Study Section, Bioengineering Sciences and Technologies IRG February, 2017

ZRG1 BST-T 03: The Bioengineering Sciences and Technologies Member Conflict Special Emphasis Panel November, 2016

BDMA: The Biodata Management and Analysis Study Section, Bioengineering Sciences and Technologies IRG February, 2016

BDMA: The Biodata Management and Analysis Study Section, Bioengineering Sciences and Technologies IRG October, 2015

The National Institute of Diabetes and Digestive and Kidney Diseases 2011

Next Generation Software for Biomedical Image Analysis: Reinventing the Insight Toolkit (ITK-v4.0) 2010

Deutsche Forschungsgemeinschaft (DFG)

Grant Reviewer	2019
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Program of Fonds de Recherche du Québec - Nature et Technologies

Research Support for New Academics	2018
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New University Researchers Start-Up Program	2011
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Center for Integration of Medicine & Innovative Technology (CIMIT)

CIMIT Grant Review	2010
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CONFERENCE ACTIVITIES**International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)**

Conference	
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Reviewer	2005 – 2010, 2017- present
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Invited Member of the Academia & Industry - Networking Session	2022
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MICCAI Best Young Presenter Award Committee	2019
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Program Committee Member	2011 – 2016
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Chair of Oral Session “Registration and Atlases Construction”	2013
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MICCAI Young Investigator Award Committee	2013
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Co-Chair of Workshops, Tutorials, and Challenges	2012
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Generative Models for Synthesizing Medical Images	2025
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Organizer	
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International Workshop on Machine Learning in Medical Imaging	
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Program Committee Member	2011 – 2024
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Workshop on Shape in Medical Imaging	
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Advisory Panel	2018 - 2020
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Workshop on Predictive Intelligence in Medicine	
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Program Committee Member	
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2020	
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ABCD Neurocognitive Prediction Challenge	
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Chair	2019
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Workshop on Spectral and Shape Analysis in Medical Imaging	
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Advisory Panel	2015 – 2017
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Medical Computer Vision Workshop	
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Program Committee Member	2010 – 2016
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Interactive Medical Image Computing Workshop	
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Program Committee Member	2014 – 2015
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Bayesian & Graphical Models for Biomedical Imaging Workshop	
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Program Committee Member	2014
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Spatio-Temporal Image Analysis Workshop	
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Program Committee Member	2012, 2014
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Probabilistic Modeling for Medical Image Analysis	
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Co-Chair	2009
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Conference on Neural Information Processing Systems

Reviewer	2026
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International Conference on Computer Vision

Reviewer	2023 – present
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Computer Vision and Pattern Recognition

Reviewer	2023 – present
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Workshop on Biomedical Image Registration

Session Chair	2022
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Program Committee Member	2012, 2014, 2018
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Winter Conference on Applications of Computer VisionReviewer
2020**Medical Imaging with Deep Learning**Reviewer
2020**Biennial International Conference on Information Processing in Medical Imaging**Co-Chair 2013
Program Committee Member 2009, 2011, 2015, 2017, 2019**Medical Imaging and Augmented Reality & Environments for Computer-Assisted interventions**

Reviewer 2013

IEEE Visualization Conference

Reviewer 2011

STANFORD COMMITTEES**The AI for Mental Health Initiative**

Founding Director 2024 – present

Electrical Engineering Ph.D. Admission Committee

Member 2024 – present

Stanford University School of Medicine AI Faculty Cluster Hire Search Committee

Member 2024 – present

Stanford Neurosciences PhD Program AdmissionsScreener 2022 – 2024
Interviewer 2025 – present**Bioengineering PhD Qualifying Examination**

Examiner 2024

Annual Department Awards Committee, Department of Psychiatry & Behavioral Sciences

Member 2021 – 2023

Jaswa Innovator Award Committee

Member 2022

**Deputy Director for the National Center for PTSD Dissemination and Training Division
Search Committee**

Member 2021

Research Track of the General/Adult Psychiatry Residency

Interviewer 2021

NTL-R fNIRS Brain Imaging Search (Committee Billet 72171)

Member 2021