



Kilian M Pohl

Professor (Research) of Psychiatry and Behavioral Sciences (Major Labs and Incubator)

 Curriculum Vitae available Online

Bio

BIO

The research of my lab focuses on computational neuroscience aimed at identifying biomedical phenotypes to improve the mechanistic understanding, diagnosis, and treatment of neuropsychiatric disorders.

ACADEMIC APPOINTMENTS

- Professor (Research), Psychiatry and Behavioral Sciences
- Member, Bio-X
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Senior Editor, Medical Image Analysis, (2024- present)
- Editorial Board, Medical Image Analysis, (2017- present)
- Associate Editor, IEEE Transactions on Medical Imaging, (2016- present)

HONORS AND AWARDS

- Creative and Novel Ideas in HIV Research Award, The 20th International AIDS Conference (2014)
- Two Top 10 most accessed papers, IEEE Transactions on Medical Image Analysis (2012)
- Top 10 Paper (of 736 submissions), 8th International Symposium on Biomedical Imaging (2011)
- IBM Research Accomplishment, IBM (2009)
- Best Paper Prize (of 575 submissions), Medical Image Analysis-MICCAI 06 (2007)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Program Committee Member, Workshop on Biomedical Image Registration (2012 - 2018)
- Program Committee Member, International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI) (2011 - 2016)
- Session Chair, National Alliance for Medical Image Computing Registration Retreat (2011 - 2011)
- Program Committee Member, Biennial International Conference on Information Processing in Medical Imaging (2009 - 2017)
- Program Committee Member, 9th Workshop on Mathematical Methods in Biomedical Image Analysis (2008 - 2008)

PROFESSIONAL EDUCATION

- Ph.D., Massachusetts Institute of Technology , Computer Science (2005)

- M.S., University of Karlsruhe, Karlsruhe, Germany , Mathematics (1999)
- B.S., University of Karlsruhe, Karlsruhe, Germany , Mathematics (1995)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The foundation of the laboratory of Associate Professor Kilian M. Pohl, PhD, is computational science aimed at identifying biomedical phenotypes improving the mechanistic understanding, diagnosis, and treatment of neuropsychiatric disorders. The biomedical phenotypes are discovered by unbiased, machine learning-based searches across biological, neuroimaging, and neuropsychological data. This data-driven discovery currently supports the adolescent brain research of the NIH-funded National Consortium on Alcohol and NeuroDevelopment in Adolescence (NCANDA) and the Adolescent Brain Cognitive Development (ABCD), the largest long-term study of brain development and child health in the US. The laboratory also investigates brain patterns specific to alcohol use disorder and the human immunodeficiency virus (HIV) across the adult age range, and have advanced the understanding of a variety of brain diseases including schizophrenia, Alzheimer's disease, glioma, and aging.

Teaching

COURSES

2023-24

- Machine Learning for Neuroimaging: BIODS 227, PSYC 121, PSYC 221 (Aut)

2022-23

- Current Topics in Machine Learning for Neuroimaging: PSYC 121 (Aut)
- Current Topics in Machine Learning for Neuroimaging: PSYC 221 (Aut)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Camila Gonzalez, Wei Peng

Doctoral Dissertation Advisor (AC)

Tomas Bosschieter, Favour Nerrise, JIAHONG OUYANG, Yixin Wang

Publications

PUBLICATIONS

- **Frontal cortical volume deficits as enduring evidence of childhood abuse in community adults with AUD and HIV infection comorbidity.** *Neurobiology of stress*
Sassoon, S. A., Fama, R., Pohl, K. M., Pfefferbaum, A., Sullivan, E. V.
2024; 29: 100608
- **FedNN: Federated learning on concept drift data using weight and adaptive group normalizations** *PATTERN RECOGNITION*
Kang, M., Kim, S., Jin, K., Adeli, E., Pohl, K. M., Park, S.
2024; 149
- **Brain Volume in Fetal Alcohol Spectrum Disorders Over a 20-Year Span.** *JAMA network open*
Pfefferbaum, A., Sullivan, E. V., Pohl, K. M., Bischoff-Grethe, A., Stoner, S. A., Moore, E. M., Riley, E. P.
2023; 6 (11): e2343618
- **One-shot Federated Learning on Medical Data using Knowledge Distillation with Image Synthesis and Client Model Adaptation.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Kang, M., Chikontwe, P., Kim, S., Jin, K. H., Adeli, E., Pohl, K. M., Park, S. H.

2023; 14221: 521-531

- **An Explainable Geometric-Weighted Graph Attention Network for Identifying Functional Networks Associated with Gait Impairment.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Nerrise, F., Zhao, Q., Poston, K. L., Pohl, K. M., Adeli, E.
2023; 14221: 723-733
- **Generating Realistic Brain MRIs via a Conditional Diffusion Probabilistic Model.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Peng, W., Adeli, E., Bosschieter, T., Hyun Park, S., Zhao, Q., Pohl, K. M.
2023; 14227: 14-24
- **LSOR: Longitudinally-Consistent Self-Organized Representation Learning.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Ouyang, J., Zhao, Q., Adeli, E., Peng, W., Zaharchuk, G., Pohl, K. M.
2023; 14220: 279-289
- **Brain structural covariance network features are robust markers of early heavy alcohol use.** *Addiction (Abingdon, England)*
Ottino-Gonzalez, J., Cupertino, R. B., Cao, Z., Hahn, S., Pancholi, D., Albaugh, M. D., Brumback, T., Baker, F. C., Brown, S. A., Clark, D. B., de Zambotti, M., Goldston, D. B., Luna, et al
2023
- **White matter microstructural integrity continues to develop from adolescence to young adulthood in mice and humans: Same phenotype, different mechanism.** *Neuroimage. Reports*
Piekarski, D. J., Zahr, N. M., Zhao, Q., Ferizi, U., Pohl, K. M., Sullivan, E. V., Pfefferbaum, A.
2023; 3 (3)
- **Age-Accelerated Increase of White Matter Hyperintensity Volumes is Exacerbated by Heavy Alcohol Use in People Living with HIV.** *Biological psychiatry*
Pfefferbaum, A., Zhao, Q., Pohl, K. M., Sassoon, S. A., Zahr, N. M., Sullivan, E. V.
2023
- **An Explainable Geometric-Weighted Graph Attention Network for Identifying Functional Networks Associated with Gait Impairment.** *ArXiv*
Nerrise, F., Zhao, Q., Poston, K. L., Pohl, K. M., Adeli, E.
2023
- **Episodic memory deficit in HIV infection: common phenotype with Parkinson's disease, different neural substrates.** *Brain structure & function*
Fama, R., Müller-Oehring, E. M., Levine, T. F., Sullivan, E. V., Sassoon, S. A., Asok, P., Brontë-Stewart, H. M., Poston, K. L., Pohl, K. M., Pfefferbaum, A., Schulte, T.
2023
- **Machine Learning Approaches to Understand Cognitive Phenotypes in People With HIV.** *The Journal of infectious diseases*
Mukerji, S. S., Petersen, K. J., Pohl, K. M., Dastgheyb, R. M., Fox, H. S., Bilder, R. M., Brouillette, M. J., Gross, A. L., Scott-Sheldon, L. A., Paul, R. H., Gabuzda, D.
2023; 227 (Supplement_1): S48-S57
- **Postural instability in HIV infection: relation to central and peripheral nervous system markers.** *AIDS (London, England)*
Sullivan, E. V., Zahr, N. M., Sassoon, S. A., Pohl, K. M., Pfefferbaum, A.
2023
- **Brain volumetrics differ by fiebig stage in acute HIV infection.** *AIDS (London, England)*
Bolzenius, J., Sacdalan, C., Ndhlovu, L. C., Sailasuta, N., Trautmann, L., Tipsuk, S., Crowell, T. A., Suttichom, D., Colby, D. J., Phanuphak, N., Chan, P., Premeaux, T., Kroon, et al
2023
- **The distortions of the free water model for diffusion MRI data when assuming single compartment relaxometry and proton density.** *Physics in medicine and biology*
Ferizi, U., Müller-Oehring, E. M., Peterson, E. T., Pohl, K. M.
2023
- **One-Shot Federated Learning on Medical Data Using Knowledge Distillation with Image Synthesis and Client Model Adaptation**
Kang, M., Chikontwe, P., Kim, S., Jin, K., Adeli, E., Pohl, K. M., Park, S., Greenspan, H., Madabhushi, A., Mousavi, P., Salcudean, S., Duncan, J., Syeda-Mahmood, et al

SPRINGER INTERNATIONAL PUBLISHING AG.2023: 521-531

- **Imputing Brain Measurements Across Data Sets via Graph Neural Networks.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Wang, Y., Peng, W., Tapert, S. F., Zhao, Q., Pohl, K. M.
2023; 14277: 172-183
- **Disentangling Normal Aging From Severity of Disease via Weak Supervision on Longitudinal MRI** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Ouyang, J., Zhao, Q., Adeli, E., Zaharchuk, G., Pohl, K. M.
2022; 41 (10): 2558-2569
- **Multi-atlas thalamic nuclei segmentation on standard T1-weighted MRI with application to normal aging.** *Human brain mapping*
Pfefferbaum, A., Sullivan, E. V., Zahr, N. M., Pohl, K. M., Saranathan, M.
2022
- **Multiple Instance Neuroimage Transformer.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Singla, A., Zhao, Q., Do, D. K., Zhou, Y., Pohl, K. M., Adeli, E.
2022; 13564: 36-48
- **Bridging the Gap between Deep Learning and Hypothesis-Driven Analysis via Permutation Testing.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Paschali, M., Zhao, Q., Adeli, E., Pohl, K. M.
2022; 13564: 13-23
- **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 : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Endo, M., Poston, K. L., Sullivan, E. V., Fei-Fei, L., Pohl, K. M., Adeli, E.
2022; 13438: 130-139
- **A Penalty Approach for Normalizing Feature Distributions to Build Confounder-Free Models.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Vento, A., Zhao, Q., Paul, R., Pohl, K., Adeli, E.
2022; 13433: 387-397
- **Self-supervised learning of neighborhood embedding for longitudinal MRI.** *Medical image analysis*
Ouyang, J., Zhao, Q., Adeli, E., Zaharchuk, G., Pohl, K. M.
2022; 82: 102571
- **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*
Zhao, Q., Wang, K., Kiss, O., Yuksel, D., de Zambotti, M., Clark, D. B., Goldston, D. B., Nooner, K. B., Brown, S. A., Tapert, S. F., Thompson, W. K., Nagel, B. J., Pfefferbaum, et al
2022; 19 (16)
- **Prior test experience confounds longitudinal tracking of adolescent cognitive and motor development.** *BMC medical research methodology*
Sullivan, E. V., Thompson, W. K., Brumback, T., Prouty, D., Tapert, S. F., Brown, S. A., De Bellis, M. D., Nooner, K. B., Baker, F. C., Colrain, I. M., Clark, D. B., Nagel, B. J., Pohl, et al
2022; 22 (1): 177
- **Detecting negative valence symptoms in adolescents based on longitudinal self-reports and behavioral assessments.** *Journal of affective disorders*
Paschali, M., Kiss, O., Zhao, Q., Adeli, E., Podhajsky, S., Muller-Oehring, E. M., Gotlib, I. H., Pohl, K. M., Baker, F. C.
2022
- **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*
Pelham, W. E., Yuksel, D., Tapert, S. F., Baker, F. C., Pohl, K. M., Thompson, W. K., Podhajsky, S., Reuter, C., Zhao, Q., Ebersson-Shumate, S. C., Clark, D. B., Goldston, D. B., Nooner, et al
2022; 131: 107313
- **The Pandemic's Toll on Young Adolescents: Prevention and Intervention Targets to Preserve Their Mental Health.** *The Journal of adolescent health : official publication of the Society for Adolescent Medicine*
Kiss, O., Alzueta, E., Yuksel, D., Pohl, K. M., de Zambotti, M., Muller-Oehring, E. M., Prouty, D., Durley, I., Pelham, W. E., McCabe, C. J., Gonzalez, M. R., Brown, S. A., Wade, et al

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- **GaitForeMer: Self-supervised Pre-training of Transformers via Human Motion Forecasting for Few-Shot Gait Impairment Severity Estimation**
Endo, M., Poston, K. L., Sullivan, E. V., Fei-Fei, L., Pohl, K. M., Adeli, E., Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 130-139
- **Joint Graph Convolution for Analyzing Brain Structural and Functional Connectome**
Li, Y., Wei, Q., Adeli, E., Pohl, K. M., Zhao, Q., Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 231-240
- **Bridging the Gap Between Deep Learning and Hypothesis-Driven Analysis via Permutation Testing**
Paschali, M., Zhao, Q., Adeli, E., Pohl, K. M., Reikik, Adeli, E., Park, S. H., Cintas, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 13-23
- **Multiple Instance Neuroimage Transformer**
Singla, A., Zhao, Q., Do, D. K., Zhou, Y., Pohl, K. M., Adeli, E., Reikik, Adeli, E., Park, S. H., Cintas, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 36-48
- **A Penalty Approach for Normalizing Feature Distributions to Build Confounder-Free Models**
Vento, A., Zhao, Q., Paul, R., Pohl, K. M., Adeli, E., Wang, L., Dou, Q., Fletcher, P. T., Speidel, S., Li, S.
SPRINGER INTERNATIONAL PUBLISHING AG.2022: 387-397
- **Growth Trajectories of Cognitive and Motor Control in Adolescence: How Much Is Development and How Much Is Practice?** *NEUROPSYCHOLOGY*
Lannoy, S., Pfefferbaum, A., Le Berre, A., Thompson, W. K., Brumback, T., Schulte, T., Pohl, K. M., De Bellis, M. D., Nooner, K. B., Baker, F. C., Prouty, D., Colrain, I. M., Nagel, et al
2021
- **Risk for depression tripled during the COVID-19 pandemic in emerging adults followed for the last 8 years.** *Psychological medicine*
Alzueta, E., Podhajsky, S., Zhao, Q., Tapert, S. F., Thompson, W. K., de Zambotti, M., Yuksel, D., Kiss, O., Wang, R., Volpe, L., Prouty, D., Colrain, I. M., Clark, et al
2021: 1-8
- **Multi-label, multi-domain learning identifies compounding effects of HIV and cognitive impairment.** *Medical image analysis*
Zhang, J., Zhao, Q., Adeli, E., Pfefferbaum, A., Sullivan, E. V., Paul, R., Valcour, V., Pohl, K. M.
2021; 75: 102246
- **Adversarial Bayesian Optimization for Quantifying Motion Artifact Within MRI.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Butskova, A., Juhl, R., Zukic, D., Chaudhary, A., Pohl, K. M., Zhao, Q.
2021; 12928: 83-92
- **Longitudinal Correlation Analysis for Decoding Multi-modal Brain Development.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Zhao, Q., Adeli, E., Pohl, K. M.
2021; 12907: 400-409
- **Self-Supervised Longitudinal Neighbourhood Embedding.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Ouyang, J., Zhao, Q., Adeli, E., Sullivan, E. V., Pfefferbaum, A., Zaharchuk, G., Pohl, K. M.
2021; 12902: 80-89
- **Memory impairment in alcohol use disorder is associated with regional frontal brain volumes.** *Drug and alcohol dependence*
Fama, R., Le Berre, A., Sassoon, S. A., Zahr, N. M., Pohl, K. M., Pfefferbaum, A., Sullivan, E. V.
2021; 228: 109058
- **Representation Disentanglement for Multi-modal Brain MRI Analysis.** *Information processing in medical imaging : proceedings of the ... conference*
Ouyang, J., Adeli, E., Pohl, K. M., Zhao, Q., Zaharchuk, G.
2021; 12729: 321-333
- **Longitudinal Pooling & Consistency Regularization to Model Disease Progression From MRIs.** *IEEE journal of biomedical and health informatics*
Ouyang, J., Zhao, Q., Sullivan, E. V., Pfefferbaum, A., Tapert, S. F., Adeli, E., Pohl, K. M.
2021; 25 (6): 2082-2092

- **GROWTH TRAJECTORIES OF COGNITIVE AND MOTOR CONTROL IN ADOLESCENCE: HOW MUCH IS DEVELOPMENT AND HOW MUCH IS PRACTICE?**
Lannoy, S.
WILEY.2021: 188A
- **Going Beyond Saliency Maps: Training Deep Models to Interpret Deep Models.** *Information processing in medical imaging : proceedings of the ... conference*
Liu, Z., Adeli, E., Pohl, K. M., Zhao, Q.
2021; 12729: 71-82
- **Preliminary Evidence for a Relationship between Elevated Plasma TNF# and Smaller Subcortical White Matter Volume in HCV Infection Irrespective of HIV or AUD Comorbidity.** *International journal of molecular sciences*
Zahr, N. M., Pohl, K. M., Kwong, A. J., Sullivan, E. V., Pfefferbaum, A.
2021; 22 (9)
- **Preliminary Evidence for a Relationship between Elevated Plasma TNF alpha and Smaller Subcortical White Matter Volume in HCV Infection Irrespective of HIV or AUD Comorbidity** *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*
Zahr, N. M., Pohl, K. M., Kwong, A. J., Sullivan, E. V., Pfefferbaum, A.
2021; 22 (9)
- **POOR SLEEP AS A PREDICTOR OF COVID-19 RELATED STRESS, FEAR AND SADNESS IN YOUNG ADOLESCENTS: A LONGITUDINAL STUDY**
Kiss, O., Alzueta, E., Yuksel, D., Durley, I., Volpe, L., Dulai, T., Arra, N., Obilor, T., Pohl, K., de Zambotti, M., Baker, F.
OXFORD UNIV PRESS INC.2021: A90-A91
- **Longitudinal self-supervised learning.** *Medical image analysis*
Zhao, Q., Liu, Z., Adeli, E., Pohl, K. M.
2021; 71: 102051
- **Performance ramifications of abnormal functional connectivity of ventral posterior lateral thalamus with cerebellum in abstinent individuals with Alcohol Use Disorder.** *Drug and alcohol dependence*
Honnorat, N. n., Saranathan, M. n., Sullivan, E. V., Pfefferbaum, A. n., Pohl, K. M., Zahr, N. M.
2021; 220: 108509
- **Longitudinal Correlation Analysis for Decoding Multi-modal Brain Development**
Zhao, Q., Adeli, E., Pohl, K. M., DeBruijne, M., Cattin, P. C., Cotin, S., Padoy, N., Speidel, S., Zheng, Y., Essert, C.
SPRINGER INTERNATIONAL PUBLISHING AG.2021: 400-409
- **Metadata Normalization.** *Proceedings. IEEE Computer Society Conference on Computer Vision and Pattern Recognition*
Lu, M., Zhao, Q., Zhang, J., Pohl, K. M., Fei-Fei, L., Niebles, J. C., Adeli, E.
2021; 2021: 10912-10922
- **Self-supervised Longitudinal Neighbourhood Embedding**
Ouyang, J., Zhao, Q., Adeli, E., Sullivan, E., Pfefferbaum, A., Zaharchuk, G., Pohl, K. M., DeBruijne, M., Cattin, P. C., Cotin, S., Padoy, N., Speidel, S., Zheng, et al
SPRINGER INTERNATIONAL PUBLISHING AG.2021: 80-89
- **Representation Learning with Statistical Independence to Mitigate Bias.** *IEEE Winter Conference on Applications of Computer Vision. IEEE Winter Conference on Applications of Computer Vision*
Adeli, E., Zhao, Q., Pfefferbaum, A., Sullivan, E. V., Fei-Fei, L., Niebles, J. C., Pohl, K. M.
2021; 2021: 2512-2522
- **Quantifying Parkinson's disease motor severity under uncertainty using MDS-UPDRS videos.** *Medical image analysis*
Lu, M., Zhao, Q., Poston, K. L., Sullivan, E. V., Pfefferbaum, A., Shahid, M., Katz, M., Kouhsari, L. M., Schulman, K., Milstein, A., Niebles, J. C., Henderson, V. W., Fei-Fei, et al
2021; 73: 102179
- **Attenuated cerebral blood flow in frontolimbic and insular cortices in Alcohol Use Disorder: Relation to working memory.** *Journal of psychiatric research*
Sullivan, E. V., Zhao, Q. n., Pohl, K. M., Zahr, N. M., Pfefferbaum, A. n.
2021; 136: 140-48
- **Association of Heavy Drinking With Deviant Fiber Tract Development in Frontal Brain Systems in Adolescents.** *JAMA psychiatry*

- Zhao, Q., Sullivan, E. V., Honnorat, N., Adeli, E., Podhajsky, S., De Bellis, M. D., Voyvodic, J., Nooner, K. B., Baker, F. C., Colrain, I. M., Tapert, S. F., Brown, S. A., Thompson, et al
2020
- **Alcohol Use Disorder and Its Comorbidity With HIV Infection Disrupts Anterior Cingulate Cortex Functional Connectivity.** *Biological psychiatry. Cognitive neuroscience and neuroimaging*
Honnorat, N., Fama, R., Muller-Oehring, E. M., Zahr, N. M., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2020
 - **Spatio-Temporal Graph Convolution for Resting-State fMRI Analysis.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Gadgil, S., Zhao, Q., Pfefferbaum, A., Sullivan, E. V., Adeli, E., Pohl, K. M.
2020; 12267: 528–38
 - **Inpainting Cropped Diffusion MRI using Deep Generative Models.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Ayub, R., Zhao, Q., Meloy, M. J., Sullivan, E. V., Pfefferbaum, A., Adeli, E., Pohl, K. M.
2020; 12329: 91-100
 - **Vision-based Estimation of MDS-UPDRS Gait Scores for Assessing Parkinson's Disease Motor Severity.** *Medical image computing and computer-assisted intervention : MICCAI ... International Conference on Medical Image Computing and Computer-Assisted Intervention*
Lu, M., Poston, K., Pfefferbaum, A., Sullivan, E. V., Fei-Fei, L., Pohl, K. M., Niebles, J. C., Adeli, E.
2020; 12263: 637–47
 - **Deep Parametric Mixtures for Modeling the Functional Connectome.** *PRedictive Intelligence in MEDicine. PRIME (Workshop)*
Honnorat, N., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2020; 12329: 133–43
 - **Deep Learning Identifies Morphological Determinants of Sex Differences in the Pre-Adolescent Brain.** *NeuroImage*
Adeli, E., Zhao, Q., Zahr, N. M., Goldstone, A., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2020: 117293
 - **Accelerated aging and motor control deficits are related to regional deformation of central cerebellar white matter in alcohol use disorder** *ADDICTION BIOLOGY*
Zhao, Q., Pfefferbaum, A., Podhajsky, S., Pohl, K. M., Sullivan, E. V.
2020; 25 (3)
 - **Corrigendum: Graded Cerebellar Lobular Volume Deficits in Adolescents and Young Adults with Fetal Alcohol Spectrum Disorders (FASD).** *Cerebral cortex (New York, N.Y. : 1991)*
Sullivan, E. V., Moore, E. M., Lane, B., Pohl, K. M., Riley, E. P., Pfefferbaum, A.
2020
 - **Graded Cerebellar Lobular Volume Deficits in Adolescents and Young Adults with Fetal Alcohol Spectrum Disorders (FASD).** *Cerebral cortex (New York, N.Y. : 1991)*
Sullivan, E. V., Moore, E. M., Lane, B., Pohl, K. M., Riley, E. P., Pfefferbaum, A.
2020
 - **Regional growth trajectories of cortical myelination in adolescents and young adults: longitudinal validation and functional correlates** *BRAIN IMAGING AND BEHAVIOR*
Kwon, D., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2020; 14 (1): 242–66
 - **Training confounder-free deep learning models for medical applications.** *Nature communications*
Zhao, Q. n., Adeli, E. n., Pohl, K. M.
2020; 11 (1): 6010
 - **Adolescent alcohol use disrupts functional neurodevelopment in sensation seeking girls.** *Addiction biology*
Zhao, Q. n., Sullivan, E. V., Muller-Oehring, E. M., Honnorat, N. n., Adeli, E. n., Podhajsky, S. n., Baker, F. C., Colrain, I. M., Prouty, D. n., Tapert, S. F., Brown, S. A., Meloy, M. J., Brumback, et al
2020: e12914
 - **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*

- Zahr, N. M., Lenart, A. M., Karpf, J. A., Casey, K. M., Pohl, K. M., Sullivan, E. V., Pfefferbaum, A. n.
2020: 108066
- **Age differences in brain structural and metabolic responses to binge ethanol exposure in fisher 344 rats.** *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*
Zahr, N. M., Sullivan, E. V., Pohl, K. M., Pfefferbaum, A. n.
2020
 - **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*
Zhao, Q. n., Pohl, K. M., Sullivan, E. V., Pfefferbaum, A. n., Zahr, N. M.
2020
 - **Pattern of Cerebellar Lobular Volume Deficits in Adolescents and Adults With Fetal Alcohol Effects (FAE) and Fetal Alcohol Syndrome (FAS)**
Sullivan, E., Moore, E., Pohl, K., Riley, E., Pfefferbaum, A.
NATURE PUBLISHING GROUP.2019: 281–82
 - **Confounder-Aware Visualization of ConvNets.** *Machine learning in medical imaging. MLMI (Workshop)*
Zhao, Q., Adeli, E., Pfefferbaum, A., Sullivan, E. V., Pohl, K. M.
2019; 11861: 328–36
 - **Covariance Shrinkage for Dynamic Functional Connectivity.** *Connectomics in neuroImaging : third International Workshop, CNI 2019, held in conjunction with MICCAI 2019, Shenzhen, China, October 13, 2019, Proceedings. CNI (Workshop) (3rd : 2019 : Shenzhen Shi, China)*
Honnorat, N., Adeli, E., Zhao, Q., Pfefferbaum, A., Sullivan, E. V., Pohl, K.
2019; 11848: 32–41
 - **Data Augmentation Based on Substituting Regional MRIs Volume Scores.** *Large-Scale Annotation of Biomedical Data and Expert Label Synthesis and Hardware Aware Learning for Medical Imaging and Computer Assisted Intervention : International Workshops, LABELS 2019, HAL-MICCAI 2019, and CuRIOUS 2019, held in c...*
Leng, T., Zhao, Q., Yang, C., Lu, Z., Adeli, E., Pohl, K. M.
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