2021 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)

The conference schedule is based on USA EST Time

A few days before the event, every registered participant will receive an email from the company Underline with instruction to access the conference virtual platform

Time	US Eastern	US Central	US PST	Korea	China	India	England
Keynote Sessions	9:00am – 10:00am	8:00am – 9:00am	6:00am – 7:00am	10:00pm – 11:00pm	10:00pm – 11:00pm	6:30pm – 7:30pm	2:00pm – 3:00pm
Morning Session	10:00am – 12:30pm	9:00am – 11:30am	7:00am – 9:30am	11:00pm – 1:30am	11:00pm – 1:30am	7:30pm – 10:00pm	3:00pm – 5:30pm
Lunch Break	12:30pm – 1:30pm	11:30am – 12:30pm	9:30am – 10:30am	1:30am – 2:30am	1:30am – 2:30am		
Afternoon Session 1	1:30pm – 4:00pm	12:30pm – 3:00pm	10:30am – 1:00pm	2:30am – 5:00am	2:30am – 5:00am	12:00am – 2:30am	6:30pm – 9:00pm
Afternoon Session 2	4:00pm – 6:30pm	3:00pm – 5:30pm	1:00pm – 3:30pm	5:00am – 7:30am	5:00am – 7:30am	2:30am – 5:00am	9:00pm – 11:30pm

Conference and Workshop Schedule at a Glance

	Dec. 9
Morning Sessions (8:30-12:30noon)	• Workshop: 12th Workshop on High performance Bioinformatics and Biomedicine (HiBB) • Workshop 2nd Workshop on High Performance Computing Methods and Interdisciplinary Applications for Fighting the COVID-19 Pandemic (HPC4COVID-19) • Workshop: Artificial intelligence in pathology (AIPath 2021) • Workshop: Computational methods and their applications on single cell multiomic data • Workshop: The 8th International Workshop on High Performance Computing on Bioinformatics (HPCB 2021) • Workshop: The 12th Integrative Data Analysis in Systems Biology (IDASB 2021) & Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics (MABM2021) • Workshop: Biomedical Informatics Applications in Rare Diseases • Workshop: 12th International Workshop on Biomedical and Health Informatics (BHI 2021) • Workshop**:** Artificial Intelligence & Big Data vs Pandemics • Workshop: Fifth Workshop on Computational Methods for the Immune System Function • Workshop: The 5th International Workshop on Deep Learning in Bioinformatics, Biomedicine, and Healthcare Informatics (DLB2H 2021) • Workshop: RRoBin 2021: The 2nd Workshop on Reproducibility and Robustness in Biomedical Data Analysis • Workshop: International Workshop on Biological Network Analysis and Integrative Graph-Based Approaches (IWBNA 2021) • Workshop: Artificial Intelligence Techniques for BioMedicine and HealthCare
8am-2:40pm	• Workshop in Artificial Intelligence Techniques for Biomedicine and Healthcare AIBH
2:45-5:15pm	• Workshop: Artificial Intelligence & Big Data vs Pandemics AI&BDvsPandemics
Afternoon Sessions (1-6pm)	• Workshop: 12th Workshop on High performance Bioinformatics and Biomedicine (HiBB) • Workshop 2nd Workshop on High Performance Computing Methods and Interdisciplinary Applications for Fighting the COVID-19 Pandemic (HPC4COVID-19) • Workshop: Artificial intelligence in pathology (AIPath 2021) • Workshop: The 8th International Workshop on High Performance Computing on Bioinformatics (HPCB 202 • Workshop: The 12th Integrative Data Analysis in Systems Biology (IDASB 2021) & Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics (MABM2021) • Workshop: Biomedical Informatics Applications in Rare Diseases • Workshop: 12th International Workshop on Biomedical and Health Informatics (BHI 2021) • Workshop: Fifth Workshop on Computational Methods for the Immune System Function • Workshop: The 2nd International Workshop on Deep Learning Techniques for Bioinformatics and Biomedicine (DLBIBM 2021)

	• Workshop: The 5th International Workshop on Deep Learning in Bioinformatics, Biomedicine, and Healthcare Informatics (DLB2H 2021) • Workshop: Artificial Intelligence Techniques for BioMedicine and HealthCare • Workshop: Fifth Edition of Workshop Processes and Algorithms for Healthcare and Life Quality Improvement (CBPBL)

Dec 10: 8:40-9am, Opening Ceremony

Chairs:

Chen, Yidong ChenY8@uthscsa.edu
Yufei Huang YUH119@pitt.edu
Lukasz Kurgan lkurgan@vcu.edu
Feng Luo luofeng@clemson.edu
Xiaohua Hu, xh29@drexel.edu

Time	December 10	December 11	December 12
Keynote Sessions (9-10am)	Keynote Talk: **Dr. Li Shen** Li.Shen@pennmedicine.upenn.edu Chair: Yufei Huang YUH119@pitt.edu	Keynote Talk: **Dr. Richard Scheuermann,** RScheuermann@jcvi.org Chair: Feng Luo, luofeng@clemson.edu	Keynote Talk: **Dr. Madan Babu, Madan.Babu@STJUDE.ORG** Chair: Lukasz Kurgan, lkurgan@vcu.edu
Morning Sessions (10am-12:30pm)	Session 1: Molecular Structure, Function and Evolution (1) Session 2: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (1) Session 3: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (1) Session 4: Biomedical Image Analysis (1) Session 5: Biological Network Analysis	Session 15: Molecular Structure, Function and Evolution (4) Session 16: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (4) Session 17: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (4) Session 18: Biomedical Image Analysis (4) Session 19: Computational Systems Biology (2) Poster Session	Session 29: Next Generation Sequencing and High-throughput Methods Session 30: Cheminformatics and Computer-Aided Drug Design (1) Session 31: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining (2) Session 32: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (7) Session 33: Biomedical Signal Analysis (1)
Morning Sessions (9am-12:30pm)	• Workshop: Quality Assurance and Enrichment of Biological and Biomedical Ontologies and Terminologies • Workshop: Biological ontologies and knowledge bases (BiOK) • Workshop: Linking air pollution and neurodegenerative disorders: data, methods, and biological validation • Workshop: Artificial Intelligence Techniques for BioMedicine and HealthCare • Workshop CBEAS - Computational Biofilm Engineering and Applications workshop • Workshop The 2nd International Workshop on Machine Learning for EEG Signal Processing	• Workshop: Machine Learning for Biological and Medical Image Big Data • Workshop: Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics (MABM2021 • Workshop: Computational Structural Bioinformatics Workshop (CSBW)	

	• Workshop: 12th International Workshop on Biomedical and Health Informatics (BHI 2021)		
Morning Sessions (8am-1pm)		• Workshop on Long Non-Coding RNAs: Mechanism, Function, and Computational Analysis (BIBM-LncRNA)	• Workshop on Long Non-Coding RNAs: Mechanism, Function, and Computational Analysis (BIBM-LncRNA)
	Lunch Break		
Afternoon Sessions 1 (1:30pm-4pm)	Session 6: Molecular Structure, Function and Evolution (2) Session 7: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (2) Session 8: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (2) Session 9: Biomedical Image Analysis (2) Session 10: Computational Systems Biology (1) • Workshop: Linking air pollution and neurodegenerative disorders: data, methods, and biological validation • Workshop: Artificial Intelligence Techniques for BioMedicine and HealthCare • Workshop: The 2nd International Workshop on Deep Learning Techniques for Bioinformatics and Biomedicine (DLBIBM 2021) • Workshop CBEAS - Computational Biofilm Engineering and Applications workshop • Workshop The 2nd International Workshop on Machine Learning for EEG Signal Processing • Workshop: 12th International Workshop on Biomedical and Health Informatics (BHI 2021)	Session 20: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (5) Session 21: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (5) Session 22: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining (1) Session 23: Biomedical Image Analysis (5) Session 24: Computational Systems Biology and Biomarker Discovery • Workshop: Machine Learning for Biological and Medical Image Big Data • Workshop: Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics (MABM2021) • Workshop: Computational Structural Bioinformatics Workshop (CSBW)	Session 34: Cheminformatics and Computer-Aided Drug Design (2) Session 35: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining (3) Session 36: Computational Modeling and Data Integration Session 37: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (8) Session 38: Biomedical Image Analysis (7)

Afternoon Sessions 2. (4pm-6:30pm)	Session 11: Molecular Structure, Function and Evolution (3) Session 12: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (3) Session 13: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (3) Session 14: Biomedical Image Analysis (3) • Workshop: Linking air pollution and neurodegenerative disorders: data, methods, and biological validation • Workshop: Artificial Intelligence Techniques for BioMedicine and HealthCare • Workshop: The 2nd International Workshop on Deep Learning Techniques for Bioinformatics and Biomedicine (DLBIBM 2021) • Workshop CBEAS - Computational Biofilm Engineering and Applications workshop • Workshop The 2nd International Workshop on Machine Learning for EEG Signal Processing	Session 25: Healthcare Knowledge Representation & Reasoning, Electronic Medical/Health Records and Standards, Mobile Health Session 26: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (6) Session 27: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (6) Session 28: Biomedical Image Analysis (6) • Workshop: Machine Learning for Biological and Medical Image Big Data • Workshop: Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics (MABM2021) • Workshop: Computational Structural Bioinformatics Workshop (CSBW)	Session 39: Biomedical Signal Analysis (2) Session 40: Human-computer Interaction, Data Visualization Session 41: Clinical and Health Information Systems, Clinical Decision Support

2/10: Morning Sessions

Session 1: Molecular Structure, Function and Evolution (1)
Chair: Dr. Biao, Wuhan University of Technology
db319876918@whut.edu.cn

R	B470 "An approximation algorithm for unifying adjacencies by double cut and joins in unsigned genomes" Chengcheng Sun and Haitao Jiang
R	B754 "Unsupervised clustering analysis reveals global population structure of SARS-CoV-2" Yawei Li, Qingyun Liu, Zexian Zeng, and Yuan Luo
R	B367 "Predicting lncRNA–protein interactions based on graph autoencoders and collaborative training" Chen Jin, Zhuangwei Shi, Han Zhang, and Yanbin Yin
R	B378 "A novel virtual drug screening pipeline with deep-leaning as core component identifies inhibitor of pancreatic alpha-amylase" Haiping Zhang, Tingting Zhang, Konda Mani Saravanan, Linbu Liao, Hao Wu, Haishan Zhang, Huiling Zhang, Yi Pan, Xuli Wu, and Yanjie Wei
R	B867 "SEGEM: a Fast and Accurate Automatic Protein Backbone Structure Modeling Method for Cryo-EM" Sheng Chen, Sen Zhang, Xiongjun Li, Yubao Liu, and Yuedong Yang
R	B399 "Membrane Protein Identification via Multi-view Graph Regularized k-Local Hyperplane Distance Nearest Neighbor Model" Mengwei Sun, Yuqing Qian, Yijie Ding, Jijun Tang, and Quan Zou
R	B419 "Improving human essential protein prediction using only sequence-derived features via ensemble learning" Min Zeng, Nian Wang, Yifan Wu, Yiming Li, Fang-Xiang Wu, and Min Li

Session 2: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (1)
Chair : Dr. Jianhua Yao, Tencent AI Lab
jianhua.yao@gmail.com

R	B323 "DeepNFT: Towards Precise Neurofibrillary Tangle Detection via Improving Multi-scale Feature Fusion and Adversary" Yankai Jiang, Lei Zhang, Yiming Li, Xiangyang He, Hanxiao Huang, Keqing Zhu, Yubo Tao, and Hai Lin
R	B357 "An Interpretable Multi-Level Enhanced Graph Attention Network for Disease Diagnosis with Gene Expression Data" Xiaohan Xing, Fan Yang, Hang Li, Jun Zhang, Yu Zhao, Mingxuan Gao, Junzhou Huang, and Jianhua Yao
R	B401 "Weakly Guided Hierarchical Encoder-Decoder Network for Brain CT Report Generation" Sisi Yang, Junzhong Ji, Xiaodan Zhang, Ying Liu, and Zheng Wang
R	B462 "Sparse Hyper-graph Non-negative Matrix Factorization by Maximizing Correntropy" Cui-Na Jiao, Jin-Xing Liu, Ying-Lian Gao, Xiang-Zhen Kong, Chun-Hou Zheng, and Xianzi Yu
S	B227 "A Meta-Path based Drug-Target Prediction Model with Collaborative Attention Mechanisms" Bing Hu, Feng Xia, Ruolan Chen, Shuting Jin, and Xiangrong Liu
S	B390 "Adaptive total-variation joint learning model for analyzing single cell RNA seq data" Daijun Zhang, Jin-Xing Liu, and Yinglian Gao
S	B417 "AMMASurv: Asymmetrical Multi-Modal Attention for Accurate Survival Analysis with Whole Slide Images and Gene Expression Data" Ruoqi Wang, Ziwang Huang, Haitao Wang, and Hejun Wu

Session 3: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (1)
Chair: Dr. Junwen Duan, Central South University
jwduan@csu.edu.cn

R	B365 "Domain Adaptation for Trauma Mortality Prediction in EHRs with Feature Disparity" Xinlu Zhang, Shiyang Li, Zhuowei Cheng, Rachael Callcut, and Linda Petzold
R	B485 "Predicting Drug-miRNA Resistance with Layer Attention Graph Convolution Network and Multi Channel Feature Extraction" Haorui Wang, Shahanavaj Khan, Shichao Liu, and Wen Zhang
S	B587 "Radiology Report Generation for Rare Diseases via Few-shot Transformer" Xing Jia, Yun Xiong, Jiawei Zhang, Yao Zhang, Blackley Suzanne, Yangyong Zhu, and Chunlei Tang
S	B594 "Temporal Graph Representation Learning for Autism spectrum disorder Brain Networks" Peng Cao
S	B601 "Molecular Graph Contrastive Learning with Parameterized Explainable Augmentations" Yingheng Wang, Yaosen Min, Erzhuo Shao, and Ji Wu
S	B630 "Multi-omics Cancer Prognosis Analysis Based on Graph Convolution Network." Yi Wang, Zhongyue Zhang, Hua Chai, and Yuedong Yang
S	B640 "A novel approach for LncRNA function prediction based on deep learning" Xian Tan, Minghang Zou, Di Wu, Jingbo Zhang, Pingping Sun, and Zhiqiang Ma
S	B641 "Aspect-Level Sentiment Classification of Chinese Patient Comments Based on Pre-trained Sentiment Embedding" Yongxue Shan, Zhaoqian Zhong, Chao Che, Bo Jin, and Xiaopeng Wei

Session 4: Biomedical Image Analysis (1)
Chair: Dr. Sing-Hoi Sze, Texas A&M University
shsze@cs.tamu.edu

R	B221 "AttENT: Domain-Adaptive Medical Image Segmentation via Attention-Aware Translation and Adversarial Entropy Minimization" Chen Li, Xin Luo, Wei Chen, Yulin He, Mingfei Wu, and Yusong Tan
R	B243 "Interpretable Mathematical Model-guided Ultrasound Prostate Contour Extraction Using Data Mining Techniques" Tao Peng, Jing Zhao, and Jing Wang
R	B299 ""“One-Shot” Reduction of Additive Artifacts in Medical Images" Yu-Jen Chen, Yen-Jung Chang, Shao-Cheng Wen, Yiyu Shi, Xiaowei Xu, Tsung-Yi Ho, Meiping Huang, Haiyun Yuan, and Jian Zhuang
R	B868 "TransPicker: A Transformer-based Framework for Particle Picking in Cryo-EM Micrographs" Chi Zhang, Hongjia Li, Xiaohua Wan, Xuemei Chen, Zhenghe Yang, Jieqing Feng, and Fa Zhang
S	B230 "Enhancing Medical Image Classification via Augmentation-based Pre-training" Ximan Tang, Chuan Zhou, Leiting Chen, and Yang Wen
S	B242 "A Specific Model of Resting-State Functional Connectivity Magnetic Resonance Imaging to Evaluate The Cognitive Ability of Healthy Elderly" Zekun Yang, Manling Ge, and Shenghua Chen
S	B255 "Robust Pathological Detector Training Method on Sparsely Annotated Datasets via Spatial Cues" Hansheng Li, Yuxin Kang, Lingyu Hu, Qian Ma, Lei Cui, Jun Feng, Lin Yang, and Wentao Yang
S	B259 "Detecting Brain State Changes via Manifold Mean Shifting" Zhuobin Huang, Tingting Dan, Yi Lin, Jiazhou Chen, Hongmin Cai, and Guorong Wu

Session 5: Biological Network Analysis

Chair :Dr. Mihail Popescu, University of Missouri
popescum@missouri.edu

R	B490 "Graph Attention Mechanism-based Deep Tensor Factorization for Predicting disease-associated miRNA-miRNA pairs" Jiawei Luo, Zihan Lai, Cong Shen, Pei Liu, and Heyuan Shi
R	B561 "High Fidelity Modeling of Pulse Dynamics using Logic Networks" Cole Lyman, Matthew Morris, Spencer Richman, Hongbao Cao, Antony Scerri, Chris Cheadle, and Gordon Broderick
R	B693 "Identifying virus-receptor interactions through matrix completion with similarity fusion" Lingzhi Zhu, Guihua Duan, Cheng Yan, and Jianxin Wang
R	B849 "Genome-Phenome Association Prediction by Deep Factorizing Heterogeneous Molecular Network" Haojiang Tan, Sichao Qiu, Jun Wang, Guoxian Yu, Wei Guo, and Maozu Guo
S	B658 "Swarm Inverse Reinforcement Learning for Biological Systems" Xin Yu, Wenjun Wu, Pu Feng, and Yongkai Tian
S	B759 "Learning brain effective connectivity networks via controllable variational autoencoder" Aixiao Zou and Junzhong Ji
S	B892 "COMNA: Core-attachment based protein complex detection via multiple network alignment" Yaoran Chen, Yuanyuan Zhu, Ming Zhong, and Juan Liu

12/10: 1st Afternoon Sessions

Session 6: Molecular Structure, Function and Evolution (2)
Chair: Dr. Jim Zheng, University of Texas Health at Houston
Wenjin.J.Zheng@uth.tmc.edu

R	B469 "GraphIsoFun: a graph neural network based approach for splice isoform function prediction" Shuo Zhang, Changhuo Yang, Hong-Dong Li, and Jianxin Wang
R	B683 "DeepANIS: Predicting antibody paratope from concatenated CDR sequences by integrating bidirectional long-short-term memory and transformer neural networks" Pan Zhang, Shuangjia Zheng, Jianwen Chen, Yaoqi Zhou, and Yuedong Yang
R	B685 "Discover the Binding Domain of Transmembrane Proteins Based on Structural Universality" Yihang Bao, Weixi Wang, Minglong Dong, Fei He, and Han Wang
R	B690 "SA-Net: Building protein 3D structure directly from inter-residue distances using spatial-aware self-attention" Tiansu Gong, Fusong Ju, Dongbo Bu, and Shiwei Sun
S	B287 "Heterogeneous Graph Convolutional Network integrates Multi-modal Similarities for Drug-Target Interaction Prediction" Lu Jiang, Jiahao Sun, Yue Wang, Qiao Ning, Na Luo, and Minghao Yin
S	B305 "Heterogeneous Cryo-EM Projection Image Classification Based on Common Lines" Xiangwen Wang and Yonggang Lu
S	B533 "Inter-protein contact map generated only from intra-monomer by image inpainting" He Huang, Chengshi Zeng, and Xinqi Gong

Session 7: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (2)
Chair: Dr. Xinghua Mindy Shi, Temple University
mindyshi@temple.edu

R	B475 "Prioritizing Disease Genes via Multi-View Nonnegative Matrix Factorization with Layer-Wise Explicit Hierarchical Constraint" Xu Jin, MingMing Liu, WenQian He, Lin Wang, Ling Ma, YaLou Huang, and MaoQiang Xie
R	B477 "DFL-PiDA: Prediction of Piwi-interacting RNA-Disease Associations based on Deep Feature Learning" Boya Ji, Jiawei Luo, Xiaolan Xie, and Shaoliang Peng
R	B518 "Adversarial Dual-Channel Variational Graph Autoencoder for Synthetic Lethality Prediction in Human Cancers" Wei Li, Han Zhang, Qingqing Zhao, Jian Liu, and Yanbin Yin
R	B526 "Document-level DDI relation extraction with document-entity embedding" Mingliang Dou, Jijun Tang, and Fei Guo
S	B566 "Multi-modal Information Fusion-powered Regional Covid-19 Epidemic Forecasting" Honglu Zhang, Yonghui Xu, Lei Liu, Xudong Lu, Xijie Lin, Zhongmin Yan, Lizhen Cui, and Chunyan Miao
S	B622 "IEEG-TCN: A Concise and Robust Temporal Convolutional Network for Intracranial Electroencephalogram Signal Identification" Jinjie Guo, Yiping Wang, Yanfeng Yang, and Guixia Kang
S	B663 "Multi-AMP: A multi-task learning method for detecting the antimicrobial peptides and their function types" Qiaozhen Meng, Jijun Tang, and Fei Guo

Session 8: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (2)
Chair: Dr. Ayan Chatterjee, University of Agder
ayan.chatterjee@uia.no

R	B368 "FEDI: Few-shot learning based on Earth Mover's Distance algorithm combined with deep residual network to identify diabetic retinopathy" Liangrui Pan, Peng Zhang, Boya Ji, Fei Xia, Chongcheawchamnan Mitchai, and Shaoliang Peng
R	B473 "A robust drug representation learning model for eliminating cell specificity in gene expression profile and its application" Cecheng Zhao, Hui Wang, Haitao Fu, Dong Wang, Yingjie Gao, Haotian Zhu, Wen Zhang, and Xiaohui Niu
S	B317 "SpineOne: A One-Stage Detection Framework for Degenerative Discs and Vertebrae" Jiabo He, Wei Liu, Yu Wang, Xingjun Ma, and Xian-Sheng Hua
S	B337 "DECNet: A Dual-stream Edge Complementary Network for Retinal Vessel Segmentation" Weijin Xu, Huihua Yang, Mingying Zhang, Xipeng Pan, Wentao Liu, and Songlin Yan
S	B371 "Using Center Vector and Drug Molecular Information for Drug Drug Interaction Extraction" biao duan, lei qin, and Jing Peng
S	B669 "C2BERT: Cross-contrast BERT for Chinese Biomedical Sentence Representation" Xiaosu Wang, Yun Xiong, Hao Niu, Yao Zhang, and Yangyong Zhu
S	B695 "ECT-NAS: Searching Efficient CNN-Transformers Architecture for Medical Image Segmentation" Shuying Xu and Hongyan Quan
S	B721 "Learning Discriminatory Information for Object Detection on Urine Sediment Image" Binghui Wu, Sixian Chan, Hongqiang Wang, Cong Bai, and Xiaolong Zhou

Session 9: Biomedical Image Analysis (2)
Chair: Dr. Pengyuan Li, IBM Research – Almaden
pengyuan@ibm.com

R	B320 "Self-normalized Classification of Parkinson's Disease DaTscan Images" Yuan Zhou and Hemant Tagare
R	B623 "Multi-Feature Extraction with Ensemble Network for Tracing Chronic Retinal Disorders"

	Muhammad Zubair Khan, Yugyung Lee, Arslan Munir, and Muazzam Ali Khan
R	B879 "Explainable Prediction of Whether The Acetabular Cup Is Placed in The “Safe Zone” from X-ray Images" Fuchang Han, Shenghui Liao, Chao Xiong, Haitao Wei, Renzhong Wu, and Yingqi Zhang
S	B474 "Detecting Chronic Vascular Damage with Attention-Guided Neural System" Muhammad Zubair Khan, Yugyung Lee, Arslan Munir, and Muazzam Ali Khan
S	B625 "Boosting Segmentation Performance across Datasets using Histogram Specification with Application to Pelvic Bone Segmentation" Prabhakara Subramanya Jois, Aniketh Manjunath, and Thomas Fevens
S	B818 "Interpretable temporal graph neural network for prognostic prediction of Alzheimer’s disease using longitudinal neuroimaging data" Mansu Kim, Jaesik Kim, Jeffrey Qu, Heng Huang, Kyung-Ah Sohn, Qi Long, Dokyoon Kim, and Li Shen
S	B838 "An End-to-end Entangled Segmentation and Classification Convolutional Neural Network for Periodontitis Stage Grading from Periapical Radiographic Images" Tanjida Kabir, Chun-Teh Lee, Jiman Nelson, Sally Sheng, Hsiu-Wan Meng, Luyao Chen, Muhammad F Walji, Xioaqian Jiang, and Shayan Shams

Session 10: Computational Systems Biology (1)
Chair: Dr. Anja Nohe, University of Delaware
anohe@hotmail.com

R	B513 "LADstackING: Stacking Ensemble Learning-based Computational Model for Predicting Potential LncRNA-disease Associations" Jiechen Li, Xiangxiang Zeng, Yong Dou, Fei Xia, and Shaoliang Peng
R	B694 "GCNSDA: Predicting snoRNA-disease associations via graph convolutional network" Dayun Liu, Yi Luo, Jingjing Zheng, Hanlin Xu, Jiaxuan Zhang, and Lei Deng
R	B752 "CMIVGSD: circRNA-miRNA Interaction Prediction Based on Variational Graph Auto-Encoder and Singular Value Decomposition" Yurong Qian, Jingjing Zheng, Zhe Zhang, Ying Jiang, Jiaxuan Zhang, and Lei Deng
S	B336 "Temporal Link Prediction for Cancer Networks using Structural Consistency Regularized Non-negative Matrix Factorization" Junyao Zhang, Xiaogang Liu, and Xiaoke Ma
S	B558 "Feature selection using co-occurrence correlation improves cell clustering and embedding in single cell RNAseq data" Evan Walsh, Troy Ghasghaei, and Xinxia Peng
S	B284 "Differentially Private Linkage Analysis with TDT --- the case of two affected children per family" Akito Yamamoto and Tetsuo Shibuya

12/10: 2nd Afternoon Sessions

Session 11: Molecular Structure, Function and Evolution (3)
Chair : Dr. Tianlin Xu, UTHealth School of Public Health
tianlin.xu@uth.tmc.edu

R	B895 "On identifying statistical redundancy at the level of amino acid subsequences" Sandun Rajapaksa, Dinithi Sumanaweera, Maria Garcia de la Banda, Peter Stuckey, David Abramson, Lloyd Allison, Arthur Lesk, and Arun Konagurthu
S	B790 "A topology approach towards modeling activities and properties on a biomolecular surface" Aakriti Upadhyay, Tuan Tran, and Chinwe Ekenna
R	B791 "End-to-end chromosomal compartment prediction from reference genomes"

	Matthew Kirchhof, Christopher Cameron, and Stefan Kremer
S	B309 "Deep learning predicts boundaries of topologically associated domains in human cell lines using CTCF, RAD21, and 12 epigenetic signals" Benjamin Soibam
S	B766 "Representation and Reconstruction of IGM and SIMBA3D Conformations Using a Shape Alphabet" Carlos Soto, Audrey Dalgarno, Darshan Bryner, Benjamin McLaughlin, Nicola Neretti, and Anuj Srivastava
S	B613 "ConTreeDP: A consensus method of tumor trees based on maximum directed partition support problem" Xuecong Fu and Russell Schwartz
R	B398 "Subspace Modeling for Classification of Protein Secondary Structure Elements from Cα Trace" Ali Sekmen, Kamal Al Nasr, and Chrsitopher jones

Session 12: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (3)
Chair: Dr. Yang Dai, University of Illinois At Chicago
yangdai@uic.edu

R	B576 "Deep ensemble learning over the microbial phylogenetic tree (DeepEn-Phy)" Wodan Ling, Youran Qi, Xing Hua, and Michael Wu
R	B619 "KGAPG: Knowledge-Aware Neural Group Representation Learning for Attentive Prescription Generation of Traditional Chinese Medicine" Shuchen Li, Wei Wang, and Jieyue He
R	B627 "Research on the Design of Active Learning Algorithm based on Query-by-Committee for Intelligent Fetal Monitoring" Bin Quan, Manli Yang, Xia Li, Qinqun Chen, Guiqing Liu, Jiaming Hong, Zhifeng Hao, Li Li, and Hang Wei
R	B646 "Multi-omics based hybrid neural networks for prediction and interpretation of transcription factor binding sites" Yongqing Zhang, Zixuan Wang, Yuhang Liu, Libo Lu, Xiaoyao Tan, and Quan Zou
S	B689 "DeepBSI: a multimodal deep learning framework for predicting the transcription factor binding site and intensity" Peng Zhang and Shikui Tu
S	B735 "Predicting Multiple Types of MicroRNA-disease Associations based on Tensor Robust Principal Component Analysis and Label Propagation" Na Yu, Zhi-Ping Liu, and Rui Gao
S	B831 "Multi-Omics Data Clustering via the Guidance of Highly Correlated Features" Bin Zhang and Hongmin Cai

Session 13: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (3)
Chair: Dr. Carson Leung, University of Manitoba, Canada
kleung@cs.umanitoba.ca

R	B491 "Predicting Same Hospital Readmission following Fontan Cavopulmonary Anastomosis using Machine Learning" Kushal Kodnad, Azade Tabaie, Joshua Rosenblum, and Rishikesan Kamaleswaran
R	B366 "PsychBERT: A Mental Health Language Model for Social Media Mental Health Behavioral Analysis" Vedant Vajre, Mitch Naylor, Uday Kamath, and Amarda Shehu
S	B298 "Understanding the factors driving the opioid epidemic using machine learning" Sachin Gavali, Chuming Chen, Julie Cowart, Xi Peng, Shanshan Ding, Cathy Wu, and Tammy Anderson
S	B723 "Deep learning for spatio-temporal localization of temporomandibular joint in ultrasound videos"

	Kristina Belikova, Aleksandra Zailer, Svetlana Tekucheva, Sergey Ermoljev, and Dmitry Dylov
S	B806 "Health Analytics on Big COVID-19 Data" Carson Leung, Jason Mai, and Christine Zhang
S	B813 "Mapping Health Trajectories on Self Organizing Maps using COVID-19 Patient's Blood Tests" Carlos Arias-Alcaide, Cristina Soguero-Ruiz, Paloma Santos-Alvarez, Adrián García-Romero, and Inmaculada Mora-Jiménez
S	B839 "An agent-based approach to predicting lymph node metastasis status in breast cancer" Sean Grimes, Mark Zarella, Fernando Garcia, and David Breen

Session 14: Biomedical Image Analysis (3)
Chair: Dr. Chen Li, National University of Defense Technology (China)
lichen14@nudt.edu.cn

R	B304 "MIASNet: A medical image segmentation method predicting future based on past and current cases" Shiqiang Ma, Xuejian Li, Jijun Tang, and Fei Guo
R	B315 "TransMixNet: An Attenion Based Double-Branch Model for White Blood Cell Classification and Its Training with the Fuzzified Training Data" Hua Chen, Juan Liu, Chunbing Hua, Zhiqun Zuo, Jing Feng, Baochuan Pang, and Di Xiao
R	B458 "Medical Frequency Domain Learning: Consider Inter-class and Intra-class Frequency for Medical Image Segmentation and Classification" Yonghao Huang, Chuan Zhou, Leiting Chen, Junjing Chen, and Shanlin Lan
R	B514 "HAUNet-3D: a Novel Hierarchical Attention 3D UNet for Lung Nodule Segmentation" Fu Zhou, Fei Luo, Kafui EFIO-AKOLLY, Ronald BBOSA, Wen Cai Huang, Jia Ni Zou, Yi Ping Phoebe Chen, and Feng Liu
S	B314 "Variational Synthesis Network for Generating Micro Computed Tomography from Cone Beam Computed Tomography" Xiaoyu Yang, Yufei Chen, Xiaodong Yue, Xiang Lin, and Qi Zhang
S	B318 "Modality-shared MRI Image Translation Based on Conditional GAN" Chufu Deng
S	B332 "BGRA-Net: Boundary-Guided and Region-Aware Convolutional Neural Network for the Segmentation of Breast Ultrasound Images" Xiang Zhang, Xuanya Li, Kai Hu, and Xieping Gao
S	B389 "A Multiple Mutual Information Based Clustering Approach for Histology" Yiqing Shen, Jason Wright, and Jing Ke

12/11: Morning Sessions

Session 15: Molecular Structure, Function and Evolution (4)
Chair: Dr. Chunyu Wang, Harbin Institute of Technology
chunyu@hit.edu.cn

R	B701 "Combining GCN and Bi-LSTM for Protein Secondary Structure Prediction" Hailong Jin, Wei Du, Jiawei Gu, Tianhao Zhang, and Xiaohu Shi
R	B763 "Hydrogen bonds meet self-attention: all you need for general-purpose protein structure embedding" Cheng Chen, Yuguo Zha, Daming Zhu, Kang Ning, and Xuefeng Cui
R	B777 "Structure-Based Protein-Drug Affinity Prediction with Spatial Attention Mechanisms" Yuxiao Wang, Zongzhao Qiu, Qihong Jiao, Cheng Chen, Zhaoxu Meng, and Xuefeng Cui
R	B783 "Jointly Learning to Align and Aggregate with Cross Attention Pooling for Peptide-MHC Class I Binding Prediction" Cheng Chen, Zongzhao Qiu, Zhenghe Yang, Bin Yu, and Xuefeng Cui
S	B635 "Predicting RNA-RBP Interactions by Using Pseudo-Siamese Network" Fu Wang, Liangliang Yuan, and Yang Yang

S	B713 "Attention-based Convolutional Neural Networks for Protein-Protein Interaction Site Prediction" Shuai Lu, Yuguang Li, Xiaofei Nan, and Shoutao Zhang
R	B534 "ParaPindel: a scalable coordinated parallel detection framework for human genome-wide structural variation" Yaning Yang, Xiaoqi Wang, Ying Xu, Chao Yang, Bin Jiang, and Shaoliang Peng

Session 16: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (4)
Chair: Dr. Shikui Tu, Shanghai Jiao Tong University
tushikui@sjtu.edu.cn

R	B668 "H-VAE: A Hybrid Variational AutoEncoder with Data Augmentation in Predicting CRISPR/Cas9 Off-target" Weiming Xiang, Dong Chen, Yingbo Cui, and Shaoliang Peng
R	B682 "Gradient-Norm Based Attentive Loss for Molecular Property Prediction" Hehuan Ma, Yu Rong, Boyang Liu, Yuzhi Guo, Chaochao Yan, and Junzhou Huang
R	B702 "Mining the Associations between V(D)J Gene Segments and COVID-19 Disease Characteristics" Yu Zhao, Yidan Zhang, Zhi-An Huang, Fan Yang, Lei Duan, and Jianhua Yao
R	B715 "CFR-GAN: A Generative Model for Craniofacial Reconstruction" Pengyue Lin, Wen Yang, Siyuan Xia, Yu Jiang, Xiaoning Liu, and Guohua Geng
S	B913 "Representation Learning for Multi-omics Data with Heterogeneous Gene Regulatory Network" Xiaoshuang Liu, Xian Xu, Xiao Xu, Xiang Li, and Guotong Xie
S	B921 "Multi-level Amplified Iterative Training of Semi-Supervision Deep Learning For Glaucoma Diagnosis" Yu Tang, Gang Yang, Dayong Ding, and Weigang Cheng
S	B932 "Hierarchical Clustering Split for Unbiased Evaluation of Drug-Target Interaction Prediction" Peizhen Bai, Yan Ge, and Haiping Lu

Session 17: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (4)
Chair: Dr. Bi Zhao, Virginia Commonwealth University
zhaob4@vcu.edu

R	B539 "Enhancing the generalization of feature construction using genetic programming for imbalanced data with augmented non-overlap degree" Zhuang Li, Jingyan Qin, Haiyan Gong, Xiaotong Zhang, and Yadong Wan
R	B549 "A Multi-Layer Random Walk Method for Local Dynamic Community Detection in Brain Functional Network" Xuyun Wen and Daoqiang Zhang
R	B599 "MAIN: Multimodal Attention-based Fusion Networks for Diagnosis Prediction" Ying An, Haojia Zhang, Jianxin Wang, Yu Sheng, and Xianlai Chen
S	B542 "Predictive Modeling for Complex Care Management" Georgios Mavroudeas, Nafis Neehal, Xiao Shou, Malik Magdon-Ismail, Jason N. Kuruzovich, and Kristin P. Bennett
S	B551 "Uneven and Irregular Surface Condition Prediction from Human Walking Data using both Centralized and Decentralized Machine Learning Approaches" Jamie McQuire, Paul Watson, Nick Wright, Hugo Hiden, and Michael Catt
S	B555 "InterHG: an Interpretable and Accurate Model for Hypothesis Generation" Haoyu Wang, Xuan Wang, Yaqing Wang, Guangxu Xun, Kishlay Jha, and Jing Gao
S	B559 "Hierarchical M.A.P. Denoising of Longitudinal Hamilton Depression Rating Scores" Jonathan Koss, Christine DeLorenzo, and Hemant Tagare
S	B562 "Two-Stream Squeeze-and-Excitation Network for Multi-modal Sleep Staging" Xiyang Cai, Ziyu Jia, and Zehui Jiao

Session 18: Biomedical Image Analysis (4)
Chair: Dr. Mario Flores, University of Texas at San Antonio
mario.flores@utsa.edu

R	B330 "GEU-Net: Rethinking the information transmission in the skip connection of U-Net architecture" Shiqiang Ma, Xuejian Li, Zehua Zhang, Jijun Tang, and Fei Guo
R	B356 "CoCo DistillNet: a Cross-layer Correlation Distillation Network for Pathological Gastric Cancer Segmentation" Wenxuan Zou, Zhuojie Wu, Zijian Wang, Xingqun Qi, and Muyi Sun
R	B372 "BEA-SegNet: Body and Edge Aware Network for Medical Image Segmentation" Hulin Kuang, Yixiong Liang, Ning Liu, Jin Liu, and Jianxin Wang
R	B415 "Automatic Report Generation based on Multi-modal and Multi-view model for Fundus Images" Shanlin Lan, Chuan Zhou, Leiting Chen, Huqiu Fan, Ning Yan, and Yonghao Huang
S	B397 "Unsupervised Multimodal MR Images Synthesizer Using Knowledge From Higher Dimension" Qianwei Zhou, Yibo Liu, Haigen Hu, Qiu Guan, Yuan Guo, and Fan Zhang
S	B403 "PAENet: A Progressive Attention-Enhanced Network for 3D to 2D Retinal Vessel Segmentation" Zhuojie Wu, Zijian Wang, Wenxuan Zou, and Muyi Sun
S	B422 "PoissonSeg: Semi-Supervised Few-Shot Medical Image Segmentation via Poisson Learning" Xiaoang Shen, Guokai Zhang, Huilin Lai, Jihao Luo, Jianwei Lu, and Ye Luo
S	B436 "Semi-supervised Cardiac MRI Segmentation Based on Generative Adversarial Network and Variational Auto-Encoder" Shaojie Li, Xuan Yang, and Yifan Zhang

Session 19: Computational Systems Biology (2)
Chair: Dr. Renchu Guan, Jilin University
guanrenchu@jlu.edu.cn

R	B756 "Multi-label Metabolic Pathway Prediction with Auto Molecular Structure Representation Learning" Jiamin Chen, Jianliang Gao, Tengfei Lyu, Babatounde Moctard Oloulade, and Xiaohua Hu
S	B817 "ctBuilder: A framework for building pathway crosstalks by combining single cell data with bulk cell data" honglin wang, pujan joshi, Seung-Hyun Hong, Dong-Ju Shin, and Dong-Guk Shin
S	B858 "Identification of Crosstalk between Biological Pathway Routes in Cancer Cohorts" Pujan Joshi, Honglin Wang, Salvatore Jaramillo, Seung-Hyun Hong, Charles Giardina, and Dong-Guk Shin
R	B786 "MKG: a mutual information based method to infer single cell gene regulatory network" Yanping Zeng, Xuhua Yan, Zhenlan Liang, Ruiqing Zheng, and Min Li
S	B316 "SCOTCluster: Deep Clustering with Optimal Transport for Large-scale Single-cell RNA-seq Data" Faning Long, Xiaojun Ding, Xiaoqing Peng, Jianxin Wang, and Xiaoshu Zhu
R	B205 "Pm6A: an Integrated Classification Algorithm for Identifying m6A Sites" Yun Zuo, Xiangrong Liu, and Xiangxiang Zeng

Poster Session Chair: Popescu, Mihail PopescuM@health.missouri.edu, Yuedong Yang, yangyd25@mail.sysu.edu.cn

Poster Session Chair: Popescu, Mihail PopescuM@health.missouri.edu Yuedong Yang, yangyd25@mail.sysu.edu.cn		
Poster ID	**Posters**	**Presentation Time (US EST)**
P202	Riley Brenner, Kurtis Bertauche, Alexander Choi, and So Young Ryu, *VA-PRT: A Visualization Tool for Analyzing Post-translational Modification Retention Times*	10.10
P203	Dayan Liu, Xun Wang, Zhenzhen Du, Jiali Liu, Yue Zhong, and Qingyu Tian, *The binding affinity prediction of PI3K / Akt / mTOR signaling pathway proteins with drugs based on deep learning method*	10:15
P204	Jingwei Qu, Bei Wang, Zhixun Li, Xiaoqing Lyu, and Zhi Tang, *Understanding Multivariate Drug-Target-Disease Interdependence via Event-Graph*	10:20
P205	Guang Zheng, *Protein Sequence Similarities between the Homo Sapiens and Mammal Species*	10:25
P206	Jingwei Qu, Zhixuan Jing, Xiangbin Li, Yang Yu, Hongxiang Lin, Xiaoqing Lyu, and Zhi Tang, *Doc-to-Doc Recommender for Medical Literature with Similarity of Molecule Graphs*	10:30
	Question and Answering	10:35-10:45
P208	Guang Zheng, *BuYang-HuanWu-Tang Alleviates Rheumatoid Arthritis' Hypoxia via BNIP3 and PI3K/ATK*	10:45
P209	Zahraa Alsafwani and Kate Cooper, *An Brief Examination of Case Studies in Reproducibility for Bioinformatics Trainings*	10:50
P210	Xinpeng Zhang, Liangcai Gao, Li Li, Zuoyu Yan, and Lu Yu, *An Infantile Hemangioma Dataset IH-2021 and a Deep Learning based Recognition Method on it*	10:55
P211	Nisha Puthiyedth, Nuoyi Zhang, Ziqing Wang, and Yan Yan, *Performance Comparison of LASSO Variants with Genome-Wide Association Studies (GWAS)*	11:00
P212	Wen-Tse Yang, Dong-Chi Wu, Jen-Feng Liu, Jin-Bon Hong, June-Tai Wu, Pei-Lung Chen, and Chien-Yu Chen, *Evaluation of using WGS/WES to characterize ACMG actionable genes in genetic testing reports*	11:05
	Question and Answering	11:10-11:20
P213	Sachi Lele and Kathryn Cooper, *Pilot Research on Improving Consumer Health Literacy in Food Labels by Measuring the Prevalence & Occurrence of Similar Ingredients*	11:20
P214	Ye-Eun Han, Nak-Hyeon Choi, Mi Jin Cho, Min Gu Kang, and Young-Youl Kim, *Long-term PM2.5 Exposure, Genome-wide DNA Methylation and Lung Function in Korean Adults*	11:25
P215	geumkyung nah, euna choi, jiwon kim, woojin kim, kwangha yoo, youngyoul kim, and dankyu yoon, *Gene expression analysis of known COPD loci revealed its varied levels by disease severity*	11:30
P216	Thomas Olson, Irena Vodenska, Guanglan Zhang, Marislei Nishijima, and Lou Chitkushev, *Examining Mental Illness Trends in the United States From 2006 to 2019*	11;35
P217	Taekgeun Jung and Hong Seo Ryoo, *Analysis of Brain fMRI Data via Topological Data Clustering Method IoPS*	11:40
	Question & Answering	11:45-11:55

P218	Eun-A Choi, Ji-won Kim, Geumkyung Nah, Woo Jin Kim, Kwang-Ha Yoo, Young-Youl Kim, and Dankyu Yoon, *Machine learning-based prediction of COPD severity from related clinical variables*	12:00
P219	Sunung Kim, Sangkyun Noh, and Hong Seo Ryoo, *Identifying Combinatorial Significance for Classification of Alzheimer's Disease Proteomics Expression with Logical Analysis of Data*	12:05
P220	Dongwoo Kang, Sunung Kim, Yoonsik Jung, and Hong Seo Ryoo, *Generating Interpretable Patterns for Biomedical Image Classification*	12:10
P221	Sara A. Nasrat, M. Sami Zitouni, Soowon Kang, Uichin Lee, Ahsan H. Khandoker, and Herbert F. Jelinek, *Emotion Recognition in the Wild from Long-term Heart Rate Recording using Wearable Sensor and Deep Learning Ensemble Classification*	12;15
P222	Voula Georgopoulos, *Fuzzy Cognitive Map Decision Support for Aging in Place for the Elderly*	12:20
Questions and Answering		12:25-12:35

12/11: 1st Afternoon Sessions

Session 20: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (5)
Chair: Dr. Dechang Chen, Uniformed Services University of the Health Sciences
dechang.chen@usuhs.edu

R	B860 "PG-TFNet: Transformer-based Fusion Network Integrating Pathological Images and Genomic Data for Cancer Survival Analysis" Zhilong Lv, YueXiao Lin, Rui Yan, Zhenghe Yang, Ying Wang, and Fa Zhang
R	B863 "TopoPhy-CNN: Integrating the Topological Information of Phylogenetic Tree for Host Phenotype Prediction From Metagenomic Data" Bojing Li, Duo Zhong, Xingpeng Jiang, and Tingting He
R	B722 "Accurately Predicting circRNA-disease Associations Using Variational Graph Auto-encoders and LightGBM" Siyuan Shen, Yurong Qian, Junyi Liu, Jingjing Zheng, and Lei Deng
R	B738 "An AutoEncoder-Based Matrix Factorization Approach to Estimating Cell Proportion from Bulk Tumor RNA-seq Data" Yingze Xu, Yan Wang, Xuping Xie, Feilong Wang, Qiong Chen, and Huiyan Sun
R	B894 "Cancer Subtype Identification based on Multi-view Subspace Clustering with Adaptive Local Structure Learning" Haoran Liu, Mingchao Shang, Huaxiang Zhang, and Cheng Liang
S	B855 "A Simplex Hypergraph Clustering Method for Detecting Higher-order Modules in Microbial Network" Ruilong Xiang, Xianjun Shen, and Xingpeng Jiang

Session 21: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (5)
Chair: Dr. Sardar Ansari, University of Michigan
sardara@umich.edu

R	B600 "Multi-source unsupervised domain adaptation for ECG classification" fucheng Deng, Shikui Tu, and Lei Xu
R	B616 "Accurate Brain Age Prediction Model for Healthy Children and Adolescents using 3D-CNN and Dimensional Attention" Guozhen Hu, Qinjian Zhang, Zhi Yang, and Baobin Li
R	B634 "Detection-and-Excitation Neural Network Achieves Accurate Nasopharyngeal Carcinoma Segmentation in Multi-modality MR Images" Guihua Tao, Haojiang Li, Lizhi Liu, and Hongmin Cai
S	B418 "SE-MSCNN: A Lightweight Multi-scaled Fusion Network for Sleep Apnea Detection Using Single-Lead ECG Signals" Xianhui Chen, Ying Chen, Wenjun Ma, Xiaomao Fan, and Ye Li

S	B449 "Predicting upper limb progression in primary progressive multiple sclerosis using machine learning and statistical methods" Sally Mostafa, Isabel Hyo Jung Song, Ahmed Metwally, Nicolas Strauli, Nehemiah Sewde, Michel Friesenhahn, Maxime Usdin, and Xiaoming Jia
S	B476 "Multi-scale Hierarchical Transformer structure for 3D medical image segmentation" Luyao Wang, Xiaoyan Wang, Bangze Zhang, Xiaojie Huang, Cong Bai, Ming Xia, and Peiliang Sun
S	B503 "Improved classification and grading of interferents in serum specimens using machine learning" Hairui Wang, Helin Huang, and Xiaomei Wu
S	B515 "An aspect mining technique to explore public healthcare informatics" Zohair Ahmed, Junwen Duan, Fangxiang Wu, and Jianxin Wang

Session 22: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining (1)
Chair: Dr. Haifeng Liu, Dalian University of Technology
liuhaifeng0212@qq.com

R	B312 "nPTAS: A Novel Platform for Text Annotation and Service" Xuehong Wu, Jianhua Li, Yaoping Fei, Junwen Duan, and Min Li
R	B335 "Ontology-based annotation and retrieval for large-scale VCF data" Jian Liu, Zhi Qu, Yue Li, Jialiang Sun, and Yongzhuang Liu
R	B370 "Document-Level Biomedical Relation Extraction with Generative Adversarial Network and Dual-Attention Multi-Instance Learning" Lishuang Li, Ruiyuan Lian, and Hongbin Lu
R	B489 "Knowledge Distillation with Metric Learning for Medical Dialogue Generation" Qingqing Zhu, Pengfei Wu, Zhouxing Tan, Jiaxin Duan, DongYan Zhao, and Junfei Liu
S	B429 "Dual Model Weighting Strategy and Data Augmentation in Biomedical Question Answering" Yongping Du, Jingya Yan, Yiliang Zhao, Yuxuan Lu, and Xingnan Jin
S	B441 "TL-BERT: A Novel Biomedical Relation Extraction Approach" Zhehuan Zhao, Yuying Zou, Bo Xu, Zhihao Yang, Jian Wang, Hongfei Lin, Shimin Shan, and Yu Liu
S	B464 "Co-Attentive Span Network with Multi-task learning for Biomedical Named Entity Recognition" Peng Chen, Jian Wang, Hongfei Lin, Yijia Zhang, Zhihao Yang, Di Zhao, and Hui Ma

Session 23: Biomedical Image Analysis (5)
Chair: Dr. Jianxin Zhang, Dalian Minzu University
jxzhang0411@163.com

R	B546 "Flexible-CLmser: Regularized Feedback Connections for Biomedical Image Segmentation" Boheng Cao, Shikui Tu, and Lei Xu
R	B560 "Efficient False Positive Reduction Method for Early Pulmonary Nodules Detection in Physical Examination" Yu Han, Honggang Qi, Yan Liu, Zhijun Guo, Qian Xu, Qiang Lin, Haitao Liu, Junying Lu, Fei Liang, Wenqiu Feng, and Haiyan Li
R	B573 "CT Image Harmonization for Enhancing Radiomics Studies" Md Selim, Jie Zhang, Baowei Fei, Guo-Qiang Zhang, and Jin Chen
R	B597 "DCET-Net: Dual-Stream Convolution Expanded Transformer for Breast Cancer Histopathological Image Classification" Ying Zou, Shannan Chen, Qiule Sun, Bin Liu, and Jianxin Zhang
S	B504 "A Novel Method to Denoise CEUS Image Combining Bidirectional ConvLSTM with 3D DnCNN" Liu Xiang, Pu Xiuli, Shi Yunyu, and Song Jialin

S	B520 "Weakly Supervised Disease Localization in Chest X-rays via Looking into Image Relations" Baolian Qi, Gangming Zhao, Xin Wei, Chaowei Fang, Zhiqiang Chen, and Jinpeng Li
S	B521 "Tri-Directional Tasks Complementary Learning for Unsupervised Domain Adaptation of Cross-modality Medical Image Semantic Segmentation" Chen Li, Wei Chen, Mingfei Wu, Xin Luo, Yulin He, and Yusong Tan

Session 24: Computational Systems Biology and Biomarker Discovery
Chair: Dr. Frank Huang, Cincinnati Children's Hospital Medical Center
lhuangpku@gmail.com

R	B434 "Robust Tensor Method Based on Correntropy and Tensor Singular Value Decomposition for Cancer Genomics Data" Qian Qiao, Ying-Lian Gao, Sha-Sha Yuan, and Jin-Xing Liu
S	B878 "DGAT-onco: A differential analysis method to detect oncogenes by integrating functional information of mutations" Haoyang Zhang, Junkang Wei, Zifeng Liu, Xun Liu, Yutian Chong, Yutong Lu, Huiying Zhao, and Yuedong Yang
R	B840 "LGCMDS: Predicting miRNA-Drug Sensitivity based on Light Graph Convolution Network" Song Yu, Hanlin Xu, Yizhan Li, and Lei Deng
S	B386 "Meta-Analysis of cortical inhibitory interneurons markers landscape and their performances in scRNA-seq studies." Lorenzo Martini, Roberta Bardini, and Stefano Di Carlo
R	B445 "Maize Epistasis Detection by Multi-class Quantitative Multifactor Dimensionality Reduction" Xin Wang, Jun Wang, Guoxian Yu, Beibei Xin, and Maozu Guo

12/11: 2nd Afternoon Sessions

Session 25: Healthcare Knowledge Representation & Reasoning, Electronic Medical/Health Records and Standards, Mobile Health
Chair: Dr. Hisham Daoud, University of Louisiana at Lafayette
hgamalm@gmail.com

R	B414 "A Knowledge-aware Machine Reading Comprehension Framework for Dialogue Symptom Diagnosis" Xiongjun Zhao, Yingjie Cheng, Weiming Xiang, Xiang Wang, Lin Han, Jiandong Shang, and Shaoliang Peng
S	B448 "A Semantic Framework for Secure and Efficient Contact Tracing of Infectious Diseases" Payton Schubel, Zhiyuan Chen, Adina Crainiceanu, Karuna Joshi, and Don Needham
S	B579 "Preliminary Processing and Analysis of an Adverse Event Dataset for Detecting Sepsis-Related Events" Melissa Y. Yan, Lise Husby Høvik, André Pedersen, Lise Tuset Gustad, and Øystein Nytrø
S	B739 "SMP-Graph: Structure-Enhanced Unsupervised Semantic Graph Representation for Precise Medical Procedure Coding on EMRs" Yue Gao, Xiangling Fu, Xien Liu, Kaiyin Zhou, and Ji Wu
R	B553 "Personalized Clinical Pathway Recommendation via Attention Based Pre-training" Xijie Lin, Yonghui Xu, Wei Guo, Yuan Li, Wei He, Honglu Zhang, Lizhen Cui, and Chunyan Miao
S	B247 "Real-time Vital Signs Monitoring Based on COTS WiFi Devices" Yu Gu, Xiang Zhang, Huan Yan, Zhi Liu, and Yusheng Ji

Session 26: Data Mining, Machine Learning, and Artificial Intelligence for Biomedicine (6)
Chair: Dr. Xiayuan Huang, UW-Madison
xhuang78@wisc.edu

R	B793 "NeuroPredictome: A Data-Driven Predictome Linking Neuroimaging to Phenotype" Syed Fahad Sultan, Lilianne Mujica-Parodi, and Steven Skiena
R	B830 "Identifying Genes and Their Interactions from Pathway Figures and Text in Biomedical Articles" Fei He, Joshua Thompson, Ziting Mao, Yijie Ren, Yulia Nussbaum, Olha Kholod, Dmitriy Shin, Mark Hannink, Mihail Popescu, and Dong Xu
S	B374 "Integrative hierarchical ensemble clustering for improved disease subtype discovery" Bastian Pfeifer, Andrei Voicu-Spineanu, Michael G. Schimek, and Nikolaos Alachiotis
S	B442 "Cell type identification for single cell RNA data by bulk data reference projection" Oleg Sysoev, Danuta Gawel, Sandra Lilja, Samuel Schafer, and Mikael Benson
S	B841 "Combining a genetic algorithm and ensemble method to improve the classification of viruses" Dylan Lebatteux and Abdoulaye Baniré Diallo
S	B872 "Transformer-based Multi-target Regression on Electronic Health Records for Primordial Prevention of Cardiovascular Disease" Raphael Poulain, Mehak Gupta, Randi Foraker, and Rahmatollah Beheshti
S	B870 "Learning Deeply Enriched Representations of Longitudinal Imaging-Genetic Data to Predict Alzheimer's Disease Progression" Hoon Seo and Hua Wang

Session 27: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (6)
Chair: Dr. Boshu Ru, Merck Sharp & Dohme
boshu.ru@gmail.com

R	B659 "Improved Multi-task SCCA for Brain Imaging Genetics via Joint Consideration of the Diagnosis, Parameter Decomposition and Network Constraints" Xin Zhang, Yipeng Hao, Jin Zhang, Shihong Zou, Songyun Xie, and Lei Du
R	B705 "Ensemble Clustering-based Cervical Spondylosis Fine-classification" Nana Wang, Chunjie Luo, Yunyou Huang, and Jianfeng Zhan
R	B709 "Deep Neural Networks with Prior Evidence for Bladder Cancer Staging" Xiaoqian Zhou, Xiaodong Yue, Zhikang Xu, Thierry Denoeux, and Yufei Chen
S	B877 "DARNet: Dual-Attention Residual Network for Automatic Diagnosis of COVID-19 via CT Images" Jun Shi, Huite Yi, Shulan Ruan, Zhaohui Wang, Xiaoyu Hao, Hong An, and Wei Wei
S	B904 "Triple-view Learning for Predicting Antibiotic Resistance Genes" Shujie Luo, Haifang Wu, Weizhong Zhao, Xingpeng Jiang, and Tingting He
S	B930 "A Web-based Method for Designing and Validating Primer-probe Sets for SARS-CoV-2" Hajin Jeon, Jeongmin Bae, and Min-Soo Kim
S	B400 "Self-Supervised Learning with Heterogeneous Graph Neural Network for COVID-19 Drug Recommendation" Haifeng Liu, Hongfei Lin, Chen Shen, Zhihao Yang, Jian Wang, and Liang Yang
S	B411 "Disease Correlation Enhanced Attention Network for ICD Coding" Ping Gu, Song Yang, Qiang Li, and Jiangxing Wang

Session 28: Biomedical Image Analysis (6)
Chair: Dr. Xinyuan, UTHealth
xinyuan.zhang@uth.tmc.edu

R	B660 "CC-DenseUNet: Densely Connected U-Net with Criss-Cross Attention for Liver and Tumor Segmentation in CT Volumes"

	Qiang Li, Hong Song, Jingfan Fan, Danni Ai, Yucong Lin, and Jian Yang
R	B662 "MTFIL-Net: automated Alzheimer's disease detection and MMSE score prediction based on feature interactive learning" Jin Liu, Xu Tian, Jianxin Wang, Rui Guo, and Hulin Kuang
R	B700 "Self-Ensembling Semi-Supervised Model for Bone X-ray Images Landmark Detection" Tian Bai, Shenyao Liu, Yuzhao Wang, Yu Wang, and Dong Dong
R	B712 "Learning a Frequency Separation Network with Hybrid Convolution and Adaptive Aggregation for Low-dose CT Denoising" Xuecong Jiang, Lulu Wang, Zhongshi He, and Jinglong Du
R	B748 "Med-3D: 3D Reconstruction of Medical Images based on Structure-from-Motion via Transfer Learning". Hongyan Quan, Jiashun Dong, and Xiaoxiao Qian
S	B686 "SSE: Scale-adaptive Soft Erase Weakly Supervised Segmentation Network for Thyroid Ultrasound Images" Mei YU, Ming HAN, Xuewei Li, Jialin Zhu, Wei Xi, Han Jiang, Zhiqiang Liu, Ruixuan Zhang, and Ruiguo Yu
S	B751 "CAC-EMVT: Efficient Coronary Artery Calcium Segmentation with Multi-scale Vision Transformers" Yang Ning, Shouyi Zhang, Xiaoming Xi, Jie Guo, Peide Liu, and Caiming Zhang
S	B785 "CT-CAD: Context-Aware Transformers for End-to-End Chest Abnormality Detection on X-Rays" Qiran Kong, Yirui Wu, Chi Yuan, and Yongli Wang

12/12: Morning Sessions

Session 29: Next Generation Sequencing and High-throughput Methods
Chair: Dr. Mengyuan Wang, Ulster University
wang-m5@ulster.ac.uk

R	B525 "TransCoord: Genome-guided Transcripts Assembly by Coordinating Candidate Paths into Two-phased Linear Programming" Chenchen Li, Jin Zhao, Haodi Feng, and Daming Zhu
R	B591 "An ensemble deep learning framework to refine large deletions in linked-reads" Yunfei Hu, Sanidhya V Mangal, Lu Zhang, and Xin Zhou
R	B666 "On the application of BERT models for nanopore methylation detection" Yao-zhong Zhang, Kiyoshi Yamaguchi, Sera Hatakeyama, Yoichi Furukawa, Satoru Miyan, Rui Yamaguchi, and Seiya Imoto
R	B592 "DeepCI: a deep learning based clustering method for single cell RNA-seq data" Zhenlan Liang, Ruiqing Zheng, Siqi Chen, Xuhua Yan, and Min Li
R	B784 "rzMLP-DTA: gMLP network with ReZero for sequence-based drug-target affinity prediction" Zongzhao Qiu, Qihong Jiao, Yuxiao Wang, Cheng Chen, Daming Zhu, and Xuefeng Cui

Session 30: Cheminformatics and Computer-Aided Drug Design (1)
Chair: Dr. Nurit Haspel, UMass Boston
nurit.haspel@umb.edu

R	B505 "Drug3D-DTI: Improved Drug-target Interaction Prediction by Incorporating Spatial Information of Small Molecules"

	Zhirui Liao, Xiaodi Huang, Hiroshi Mamitsuka, and Shanfeng Zhu
R	B680 "SeqGO-CPA: Improving Compound-Protein Binding Affinity Prediction with Sequence Information and Gene Ontology Knowledge" Chunyu Wang, Yan Zhu, Naifeng Wen, Lingling Zhao, and Junjie Wang
R	B776 "Edge-Gated Graph Neural Network for Predicting Protein-Ligand Binding Affinities" Qihong Jiao, Zongzhao Qiu, Yuxiao Wang, Cheng Chen, Zhenghe Yang, and Xuefeng Cui
R	B929 "COVID-19 Knowledge Graph for Drug and Vaccine Development" Lan Huang, Hongrui Guan, Yanchun Liang, Xiaoyue Feng, and Renchu Guan
S	B328 "Deep Latent-Variable Models for Controllable Molecule Generation" Yuanqi Du, YInkai Wang, Fardina Alam, Yuanjie Lu, Xiaojie Guo, Liang Zhao, and Amarda Shehu

Session 31: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining (2)
Chair: Dr. Ling Luo, NCBI/NLM/NIH
lingluo0415@gmail.com

R	B565 "Dynamic Curriculum Learning with Co-training for Medical Dialogue Generation" Qingqing Zhu, Zhouxing Tan, Jiaxin Duan, Pengfei Wu, DongYan Zhao, and Junfei Liu
R	B650 "Automatic ICD-10 Coding Based on Multi-Head Attention Mechanism and Gated Residual Network" Xiaowei Wang, Jungang Han, Ben Li, Xiaoying Pan, and Hui Xu
R	B792 "CliniQG4QA: Generating Diverse Questions for Domain Adaptation of Clinical Question Answering" Xiang Yue, Xinliang Frederick Zhang, Ziyu Yao, Simon Lin, and Huan Sun
S	B550 "Biomedical Named Entity Recognition with Distance-aware Transformer Encoder" Jinzhong Ning, Zhihao Yang, Lei Wang, Yin Zhang, Hongfei Lin, and Jian Wang
S	B703 "BGGF: A Gated Information Fusion Model For Biomedical Entity Recognition" Lishuang Li and Fuxiao Zhang
S	B774 "Knowledge Graph Integrated Graph Neural Networks for Chinese Medical Text Classification" Ge Lan, Ye Li, Mengting Hu, Yufei Sun, and Yuzhi Zhang
S	B876 "SGAT: a Self-supervised Graph Attention Network for Biomedical Relation Extraction" Qiming Liu, Zhihao Yang, Lei Wang, Yin Zhang, Hongfei Lin, and Jinzhong Ning

Session 32: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (7)
Chair: Dr. Ravi Janardan, University of Minnesota-Twin Cities
janardan@umn.edu

R	B724 "A Multi-Resolution Deep Forest Framework with Hybrid Feature Fusion for CT Whole Heart Segmentation" Fei Xu, Lingli Lin, Dihan Li, Qingqi Hong, Kunhong Liu, Qingqiang Wu, Qingde Li, Yinhuan Zheng, and Jie Tian
R	B747 "DCFG: Discovering Directional CounterFactual Generation for Chest X-rays" Yan Li, Shasha Liu, Chunwei Wu, Xidong Xi, Guitao Cao, and Wenming Cao
R	B765 "Single Cell Clustering with Sparse Similarity Matrix Learning" Wenjing Zhang, Yuting Tan, and Fang-Xiang Wu
S	B727 "Label-dependent and event-guided interpretable disease risk prediction using EHRs" Shuai Niu, Yunya SONG, Qing Yin, Yike Guo, and Xian Yang
S	B728 "Shape-aware Multi-task Learning for Semi-supervised 3D Medical Image Segmentation" Shasha Liu, Yan Li, Xiaohu Li, and Guitao Cao
S	B760 "Inpatinets' FWA Detection: Mismatch between the Clinical Path and Medical Condition" Xuehan Jiang, Rui Tang, Xingzhi Sun, Gang Hu, and Guotong Xie
S	B761 "A Feature Extraction Method based on Multivariate Time Series for Individual Depression Detection"

	Yicheng Cai, Huali Ye, Yanwen Jin, Wei Gao, and Haizhou Wang
S	B787 "OA-MedSQL: Order-Aware Medical Sequence Learning for Clinical Outcome Prediction" Tong Wu, Yue Wang, Yunlong Wang, Emily Zhao, and Gao Wang

Session 33: Biomedical Signal Analysis (1)
Chair: Dr. Cuncong Zhong, University of Kansas
cczhong@gmail.com

R	B292 "Using Machine Learning to Predict Perceived Exertion During Resistance Training With Wearable Heart Rate and Movement Sensors" Justin Albert, Arne Herdick, Clemens Markus Brahms, Urs Granacher, and Bert Arnrich
R	B488 "A Novel Emotion Recognition Method Incorporating MST-based Brain Network and FVMD-GAMPE" Shilin Zhang, Bin Hu, Ji Bian, Mingzhe Zhang, and Xiangwei Zheng
R	B749 "Low-Dimensional Depth Local Dual-View Features Embedded Transformer for Electrocardiogram Signals Quality Assessment" shuaiYing Yuan, Ziyang He, Jianhui Zhao, and Zhiyong Yuan
S	B557 "Wavelet-based Multi-branch Convolutional Neural Network for Cross-individual ALS Disease Identification with EMG Signal" Zhongfei Qing, Yan Liu, Ji He, Chenxu Hao, Shenghua Teng, Shuo Zhang, and Dongsheng Fan
S	B794 "Noninvasive Respiration Monitoring of Different Sleeping Postures Using an RF Sensor" Nuerzati Resuli, Marjorie Skubic, and Myungki Jung
S	B815 "Generative Adversarial Network Based Semi-supervised Learning for Epileptic Focus Localization" Hisham Daoud and Magdy Bayoumi
S	B928 "RecSleepNet: An Automatic Sleep Staging Model Based on Feature Reconstruction" Haodong Nie, Shikui Tu, and Lei Xu

12/12: 1st Afternoon Sessions

Session 34: Cheminformatics and Computer-Aided Drug Design (2)
Chair: Dr. Laila Ramsy, University of Texas Health at Houston
Laila.Rasmy.GindyBekhet@uth.tmc.edu

S	B938 "An Efficient Methodology for PK-PD Data Analysis Based on Novel Bound Selection and Modified Spiral Dynamic Optimization Methods" Advaith Nila Narayanan, Geervani Koneti
S	B424 "Molecular Design Based on Artificial Neural Networks, Integer Programming and Grid Neighbor Search" Naveed Ahmed Azam, Jianshen Zhu, Kazuya Haraguchi, Liang Zhao, Hiroshi Nagamochi, and Tatsuya Akutsu
S	B649 "A mutli-task graph convoluational network modeling of drug-drug interactions and synergistic efficacy" Yuanyuan Deng, Song Yu, Lei Deng, Hui Liu, Xuejun Liu, and Yi Luo
S	B665 "MolBit: De novo Drug Design via Binary Representations of SMILES for avoiding the Posterior Collapse Problem" Jonghwan Choi, Sangmin Seo, Jinuk Park, and Sanghyun Park
S	B884 "In Silico Docking of Traditional Chinese Medicine Compounds and Novel Redesigned Ligands to Pseudomonas aeruginosa Quinolone Signaling Proteins PqsA and PqsD" Natasha Danielle Sachiko De Guzman, Jose Alfonso Madroño, Marla Endriga, and Enrique Jose Frio

S	B891 "Docking-based Virtual Screening with Multi-Task Learning" Zijing Liu, Xianbin Ye, Xiaomin Fang, Fan Wang, Hua Wu, and Haifeng Wang
R	B369 "Glycan immunogenicity prediction based on Graph neural network" Yu Wang, Hui Wang, Meijie Hou, Yaojun Wang, Chunming Zhang, Chuncui Huang, and Shiwei Sun

Session 35: Information Retrieval, Ontologies, Natural Language Processing, and Text Mining (3)
Chair: Kefei Liu, University of Pennsylvania
kefei.liu@pennmedicine.upenn.edu

R	B810 "COVID Vaccine and Cardiovascular Risks: A Natural Language Analysis of Vaccine Adverse Event Reports" Yiqing Zhao, Michael Ison, and Yuan Luo
R	B898 "An improved RL-based framework for mutilple biomedical event extraction via self-supervised learning" Yao Zhao, Weizhong Zhao, Xingpeng Jiang, Tingting He, and Bianping Su
R	B779 "Exploring Language Patterns in a Medical Licensure Exam Items as Support For Test Validity Evidence" Swati Padhee, Kimberly Swygert, and Ian Micir
S	B311 "DETECTING, REPORTING AND ALLEVIATING RACIAL BIASES IN STANDARDIZED MEDICAL TERMINOLOGIES AND ONTOLOGIES" James Geller and Navya Martin Kollapally
S	B897 "Acupuncture and Tuina Knowledge Graph for Ancient Literature of Traditional Chinese Medicine" Xiaosong Han, Xiaoran Li, Yanchun Liang, Xinghao Wang, Dong Xu, and Renchu Guan
S	B934 "MSG Dataset: Connecting Language and Vision Using Medical Scene Graph" Chuxue Cao, Yiming He, Yuzhen Chen, Chunli Song, Hao Ling, Renchu Guan, and Xiaoyue Feng

Session 36: Computational Modeling and Data Integration
Chair: Dr. Cong Shen, Tianjin University of Technology
congshen@email.tjut.edu.cn

R	B636 "Discovering DTI and DDI by Knowledge Graph with MHRW and Improved Neural Network" Shuo Zhang, xiaoli lin, and Xiaolong Zhang
R	B656 "OO-LSTM : A trusted medical transfers prediction model with on-chain and off-chain data fusion" Lanju Kong, Xiaolin Song, Qingqing Yin, and Qingzhong Li
R	B717 "Improving the Prediction of Disease-associated Genes by Integrating Annotated Gene Sets" Chao Deng, Cui-Xiang Lin, and Hong-Dong Li
R	B866 "A Graph-based Approach for Integrating Biological Heterogeneous Data Based on Connecting Ontology" Shilong Zhang, Yue Tang, Jing Yan, Linye Li, Tong Li, Jixiang Li, Peilin Xie, Yuanshuai Gu, Jiakang Xu, Wen Zhang, Zaiwen Feng, Jingbo Xia, Wolfgang Mayer, Hongyu Zhang, Guangcun He, and Keqing He
S	B219 "Recursive Multi-view Integration for Subtypes Identification of Cervical Cancer" Madhumita Madhumita, Archit Dwivedi, and Sushmita Paul
S	B382 "Phenomenological equations for electron transport chain-mediated reactive oxygen species metabolism" Sandeep Chenna, Jochen H. M. Prehn, and Niamh M. C. Connolly
S	B912 "Silicone Oil-Water Interaction and Emulsification Visual Simulation for Intraocular Silicone Oil Tamponade"

	Chongming Song, Yanrui Xu, Xiaokun Wang, Jiamin Wang, Houbin Huang, Zhihong Zhu, and Xiaojuan Ban

Session 37: Data Mining, Machine Learning, and Artificial Intelligence for health informatics (8)
Chair: Dr. Zhiyu Wan, Vanderbilt University Medical Center
zhiyu.wan.1@vumc.org

R	B795 "Discovering Drug-Drug Associations in the FDA Adverse Event Reporting System Database with Data Mining Approaches" Weizhong Zhao, Huyen Le, James Chen, Hesha Duggirala, Richard Forshee, Taxiarchis Botsis, Henry Francis, Huixiao Hong, Weida Tong, Yi-Ting Hwang, and Wen Zou
R	B846 "iPiDA-GBNN:Identification of Piwi-interacting RNA-disease associations based on gradient boosting neural network" Yurong Qian, Qihua He, and Lei Deng
R	B902 "A Hybrid-scales Graph Contrastive learning Framework for Discovering Regularities in Traditional Chinese Medicine Formula" Yingpei Wu and Yanchun Zhang
S	B203 "AGMI: Attention-Guided Multi-omics Integration for Drug Response Prediction with Graph Neural Networks" Ruiwei Feng, Yufeng Xie, Minshan Lai, Danny Ziyi Chen, Ji Cao, and Jian Wu
S	B263 "Generalizable multi-vaccine distribution strategy based on demographic and behavioral heterogeneity" Satyaki Roy, Pratyay Dutta, and Preetam Ghosh
S	B377 "Neurodegenerative Traits Detected via 3D CNNs Trained with Simulated Brain MRI: Prediction Supported by Visualization of Discriminant Voxels" Giulia Maria Mattia, Edouard Villain, Federico Nemmi, Olivier Rascol, Wassilios G. Meissner, Xavier Franceries, and Patrice Péran
S	B654 "Attention-enhanced Graph Cross-convolution for Protein-Ligand Binding Affinity Prediction" Feng Xianbing, Qu Jingwei, Wang Tianle, Wang Bei, Lyu Xiaoqing, and Tang Zhi

Session 38: Biomedical Image Analysis (7)
Chair: Dr. Zhandong Wu, University of Pittsburgh
wus3@upmc.edu.

R	B714 "Global Correlation and Local Geometric Information Coupled Channel Contrast Learning for Thyroid Nodule Risk Stratification" Yang Guo, Yuanbo He, Shuai Li, Ting Shu, and Luying Gao
R	B781 "Moment Invariants with Data Augmentation for Tongue Image Segmentation" Senlin Lin, Xuekun Song, Ziheng Xu, Xinyue Zhang, Yinqing Lin, Rui Zhang, Yulong Chen, Fa Zhang, Dehui Qiu, Yuling Zheng, and Xiaohua Wan
R	B821 "Semi-supervised Medical Image Segmentation with Distribution Calibration and Non-local Semantic Constraint" Nan Zhang, Junlin Hou, Rui-Wei Zhao, Rui Feng, and Yuejie Zhang
R	B835 "RCGA-Net: An Improved Multi-hybrid Attention Mechanism Network in Biomedical Image Segmentation" Feng Xiao, Cong Shen, Yu Chen, Tian Yang, Shengyong Chen, Zhijun Liao, and Jijun Tang
S	B826 "Border Sensitive Network in Weakly Supervised Thyroid Nodule Detection for Ultrasound Image" Tao Luo, Tong Xu, Jian Yu, Xuewei Li, Wei Xi, Mei YU, Ruixuan Zhang, Jie Gao, and Ruiguo Yu
S	B865 "CellDet: Dual-Task Cell Detection Network for IHC-Stained Image Analysis" wei ji

S	B584 "Analysis on Teeth Occlusion Distribution Based on Segmentation and Registration Algorithm" Zihan Cao, Xinwu Sun, Shasha Liu, Gangyuan Chen, Yan Liu, Xinggang Liu, Dongxiang Zheng, and Ling Wang

12/12: 2nd Afternoon Sessions

Session 39: Biomedical Signal Analysis (2)
Chair: Dr. Juexin Wang, University of Missouri
wangjue@missouri.edu

R	B927 "Which features of postural sway are effective in distinguishing Parkinson's disease patients from controls? An experimental investigation" Wenbo Ge, Deborah Apthorp, Christian Lueck, and Hanna Suominen
R	B857 "ARSC-Net: Adventitious Respiratory Sound Classification Network Using Parallel Paths with Channel-Spatial Attention" Lei Xu, Jin Liu, Hulin Kuang, Jianhong Cheng, Fan Wu, and Jianxin Wang
S	B275 "Algorithm To Calculate Pulse from Touch Error Free PPG Signal Captured by Smartphone Camera" AYAN CHATTERJEE
S	B427 "Enhancing Detection of SSVEPs for High-Speed Brain-Computer Interface with a Siamese Architecture" Xinyi Zhang, Shuang Qiu, Minghao Geng, and Huiguang He
S	B486 "EEG Emotion Recognition based on Hierarchy Graph Convolution Network" Fa Zheng, Bin Hu, Yalin Li, and Xiangwei Zheng
S	B508 "Signal Processing for Athletic Cardiovascular Monitoring with Wearable Sensors: Fully Automatic Detection of Training Phases from Heart Rate Data" Sofia Romagnoli, Agnese Sbrollini, Alessio Scalese, Ilaria Marcantoni, Micaela Morettini, and Laura Burattini
S	B829 "Cross-Subject EEG Emotion Recognition Using Domain Adaptive Few-Shot Learning Networks" Run Ning, C.L. Philip Chen, Tong Zhang

Session 40: Human-computer Interaction, Data Visualization
Chair: Dr. Yu-Chiao Chiu, University of Texas Health at San Antonio
chiuy@uthscsa.edu

R	B308 "Developing a visual Analysis Platform of Human Rabies for Hubei Province of China (VAP-HRHB)" keling Liu, Wenting Wu, Qiaozhen Zhang, Kun Cai, and Le Zhang
R	B554 "ANIMO: Annotation of Biomed Image Modalities" Juan Trelles Trabucco, Pengyuan Li, Cecilia Arighi, Daniela Raciti, Hagit Shatkay, and G. Elisabeta Marai
S	B260 "Wasserstein-Distance-Based Multi-Source Adversarial Domain Adaptation for Emotion Recognition and Vigilance Estimation" Yun Luo and Bao-Liang Lu
S	B267 "Vascular1: Development and Evaluation of a Virtual Reality Ultrasound Guided Vascular Access Training Module" Vishal Shenoy, Suleman Khan, Edmund Lee, and Oliver Aalami
S	B543 "Approaches to Evaluating Eye Gaze Patterns between Physician-Patient Interaction in Primary Care Clinic" Amal N. Almansour, Jacob Furst, Daniela Raicu, and Enid Montague

S	B675 "Discriminating Surprise and Anger from EEG and Eye Movements with a Graph Network" Wei-Bang Jiang, Li-Ming Zhao, Ping Guo, and Bao-Liang Lu
S	B716 "Emotion Transformer Fusion: Complementary Representation Properties of EEG and Eye Movements on Recognizing Anger and Surprise" Yiting Wang, Wei-Bang Jiang, Rui Li, and Bao-Liang Lu
S	B905 "Effect of Depression Severity on Emotion Context Insensitivity Revealed by Facial Activities Analysis" Bochao Zou, Yingxue Wang, Rui Liu, Xiangwen Lyu, Lei Feng, and Huimin Ma

Session 41: Clinical and Health Information Systems, Clinical Decision Support
Chair: Dr. Webin Zhang, Carnegie Mellon University
wenbinzhang2008@gmail.com

R	B874 "Enriching computed tomography images by projection for robust automated cerebral aneurysm detection and segmentation" Rui Ma, Shikui Tu, Peiying Li, Jiafeng Zhou, Bing Zhao, Jieqing Wan, and Lei Xu
R	B914 "A Lightweight Sleep-Rhythms Based Staging Model with Mix Deep Neural Networks" Zheng Chen, Ziwei Yang, Ming Huang, Naoaki Ono, MD Altaf-Ul-Amin, and Shigehiko Kanaya
S	B620 "A FHIR-compliant Application for Multi-site and Multi-modality Pediatric Scoliosis Patient Rehabilitation" Wenqi Shi, Felipe Giuste, Yuanda Zhu, Ashley Carpenter, Henry Iwinski, Coleman Hilton, Michael Wattenbarger, and May Wang
R	B922 "Identifying and Characterizing Opioid Addiction States Using Social Media Posts" Deeptanshu Jha, Samantha La Marca, and Rahul Singh
R	B612 "Early Alert of Elderly Cognitive Impairment using Temporal Streaming Clustering" Omar Ibrahim, Sunyang Fu, Maria Vassilaki, Ronald Petersen, Michelle Mielke, Jennifer Sauver, and Sunghwan Sohn
R	B764 "A Hybrid Pooling Based Deep Learning Framework For Automated ICD Coding" Sajida Raz Bhutto, Yifan Wu, Ying Yu, Akhtar Hussain Jalbani, and Min Li
R	B825 "FES-RF: A Feature Ensemble Selection Based Random Forest Method For Accurate Cancer Screening" Jiatong Liu, Changbin Pan, Dongdong Chen, WeiPing Lin, Shangyuan Feng, Sufang Qiu, and KunHong Liu

Workshop Detailed Schedule

Machine Learning for Biological and Medical Image Big Data *WorkshopChairs: Fa Zhang & Xuefeng Cui, xfcui.uw@gmail.com*		
Time	**Title**	**Presenter/Author**
9:00 – 9:20	S01201 DeepCOVIDNet: Deep Convolutional Neural Network for COVID-19 Detection from Chest Radiographic Images	Khandaker Mamun Ahmed, Taban Eslami, Fahad Saeed, and M. Hadi Amini
9:20 – 9:40	B269: Automated Bias Reduction in Deep Learning Based Melanoma Diagnosis using a Semi-Supervised Algorithm	Sauman Das
9:40 – 10:00	B631: Multi-context 3D Resnet for Small-size False Positive Reduction in Pelvic Lymph Node Detection	Zhen Pan, Shuo Huang, Han Wang, Mingtian Wei, Junjie Cui, Ziqiang Wang, and Haixian Zhang
10:00 – 10:20	B615: Variational voxelwise rs-fMRI representation learning: Evaluation of sex, age, and neuropsychiatric signatures	Eloy Geenjaar, Tonya White, and Vince Calhoun
10:20 – 10:40	B681: Web Platform for Medical Deep Learning Services	João Ferreira and Carlos Costa
10:40 – 10:50	**Coffee Break**	
10:50 – 11:10	S01202: Evaluation of the impact of domain adaptation on segmentation of Multiple Sclerosis lesions in MRI	Isabella Medeiros de Sousa, Marcela de Oliveira, Paulo Noronha Lisboa-Filho, and Jaime dos Santos Cardoso
11:10 – 11:30	B286: Boosting Boundary Representation for Gland Instance Segmentation	Yuxin Kang, Hansheng Li, Zhuoyue Wu, Feihong Liu, Dongqing Hu, Lei Cui, Jun Feng, and Lin Yang
11:30 – 11:50	B729: Automated Nanoparticle Count via Modified BlendMask Instance Segmentation on SEM Images	Linpeng Lv, Jingchuan Fan, Futong He, Jiahui Zhang, Liling Mao, Guoqiang Xiao, and Xiaoqin Tang
11:50 – 12:10	B568: Dilated Convolutional Neural Network for Tongue Segmentation in Real-time Ultrasound Video Data	M. Hamed Mozaffari and Won-Sook Lee
12:10 – 12:30	B487: Chest Radiography Few-Shot Image Synthesis for Automated Pathology Screening Applications	Martim Quintas e Sousa, João Pedrosa, Joana Rocha, Sofia Cardoso Pereira, Ana Maria Mendonça, and Aurélio Campilho
12:30 – 1:30	**Lunch**	
1:30 – 1:50	B234: Predict the Caenorhabditis elegans Life Stage through Hybrid Deep Neural Network	Yao Song, Jun Liu, Zikang Zhao, and Junji Wang
1:50 - 2:10	B321: Learning to Leverage Multi-Scale and Multi-Level Salient Features for Skin Lesion Grading	Ruxin Wang, Shuyuan Chen, Chaojie Ji, Guosheng Cui, and Ye Li
2:10 – 2:30	B408: A prior-based method for colorectal lymph node region classification via deep neural network	Yueyao Huang, Shuo Huang, Han Wang, Mingtian Wei, Jingling Wang, Haixian Zhang, Ziqiang Wang, and Zhang Yi
2:30 – 2:50	S01205: Brain Tumor Classification on Multi-Modality MRI Using Radiomic Features	Davidson Lucas de Souza, Alessandra Martins Coelho, Joaquim Cezar Felipe, and Matheus de Freitas Oliveira Baffa
2:50 – 3:10	B618: Analyzing Morphological Changes in Zebrafish Embryos Exposed to Toxic Chemicals	Akhil Ambekar, Carolin Poschen, Chih Lai, Stefan Scholz, and Elisabet Teixidó
3:10 – 3:30	S01203: Fusion of Multimodal Images using Parametrically Optimized PCNN and DCT based Fourier Analysis	Mayukhmala Jana, Subhosri Basu, and Arpita Das
	Closing Remarks	

Quality Assurance and Enrichment of Biological and Biomedical Ontologies and Terminologies *Workshop Chairs: Ankur Agrawal, Licong Cui, ankur@manhattan.edu*

Time	Title	Authors
Fri Dec 10, 11:00 am US EST	S02202 Luke T Slater, John A Williams, Paul N Schofield, and Georgios V Gkoutos, Exploring Sentiment as a Potential Indicator of Bias in Disease Ontologies	Luke T Slater, John A Williams, Paul N Schofield, and Georgios V Gkoutos
Fri Dec 10, 11:15 am US EST	S02203 Dental EHR-infused Persona Ontologies to Enrich Dental Dialogue Interaction of Agents	Patricia Ngantcha, Muhammad Amith, Kirk Roberts, John Valenza, Muhammad Walji, and Cui Tao
Fri Dec 10, 11:30 am US EST	S02204 Developing Ontologies to Standardize Descriptions of Visual and Dermoscopic Elements	Rebecca Z. Lin, Muhammad Amith, Xinyuan Zhang, Cynthia Wang, Jeremy Light, John Strickley, and Cui Tao
Fri Dec 10, 11:45 am US EST	S02207 Leveraging non-lattice subgraphs for suggestion of new concepts for SNOMED CT	Xubing Hao, Rashmie Abeysinghe, Fengbo Zheng, and Licong Cui

12th International Workshop on High Performance Bioinformatics and Biomedicine (HiBB-2021)

Workshop Chairs: Mario Cannataro (cannataro@unicz.it)

Thursday, December 9, 2021

Morning Session (8:50am-12:20pm)

The workshop schedule is based on USA EST Time

Time	Title	Presenter/Author
8:50am-9:00am	**Opening Remarks**	**Mario Cannataro**
9:00am-9:20am	**S04202** Raw nanopore squiggle alignment for bacterial typing distinction enhancement	Marketa Nykrynova, Vojtech Barton, Martin Vitek, Matej Bezdicek, Martina Lengerova, and Helena Skutkova
9:20am-9:40am	**S04203** MANASIG: Python Package to MAnipulateNAnopore SIGnals from sequencing files	Vojtěch Bartoň, Markéta Nykrýnová, and Helena Škutková
9:40am-10:00am	**S04204** scSpark^{XMBD}: High-Performance scRNA-seq Data Processing with Spark	Yu Liu, Mingxuan Gao, Lixuan Tan, Hongjin Liu, Yating Lin, Wenxian Yang, and Rongshan Yu
10:00am-10:10am	**Virtual Coffee Break**	
10:10am-10:30am	**S04205** Genome variant calling workflow implementation and deployment in HPC infrastructure	Elvismary Molina de Armas, Nicole Scherer, Sergio Lifschitz, and Mariana Boroni
10:30am-10:50am	**B278** Assessment of Potential Primary and Recurrent Ischemic Stroke by Detecting Atrial Fibrillation using 1D-CNN and CHA2DS2-VA Score	Mohammad Mahbubur Rahman Khan Mamun
10:50am-11:10am	**B303** Addressing Load Imbalance in Bioinformatics and Biomedical Applications: Efficient Scheduling across Multiple GPUs	Mathialakan Thavappiragasam, Vivek Kale, Oscar Hernandez, and Ada Sedova
11:10am-11:20am	**Virtual Coffee Break**	
11:20am-11:40am	**B451** Parallel Planar Approximation for Large Networks	William Gasper, Kathryn Cooper, Nathan Cornelius, and Hesham Ali
11:40am-12:00pm	**B881** Fine-Grained Chemical Entity Typing with Multimodal Knowledge Representation	Chenkai Sun, Weijiang Li, Jinfeng Xiao, Nikolaus Parulian, Chengxiang Zhai, and Heng Ji
12:00pm-12:20pm	**B782** Resource Prediction Service for Efficient Execution of Bioinformatics Workflows in Federated Cloud with Machine Learning	Matheus de Carvalho Sobrinho, Michel Rosa, Waldeyr Silva, and Aleteia Araujo
	Closing Remarks	

2nd International Workshop on High Performance Computing Methods and Interdisciplinary Applications for Fighting the COVID-19 Pandemic (HPC4COVID-19)

*Workshop Chairs: **Mario Cannataro (cannataro@unicz.it)**, Giuseppe Agapito, Mauro Castelli, Riccardo Dondi, Rodrigo Weber dos Santos, Italo Francesco Zoppis*

Thursday, December 9, 2021

Afternoon Session (2:50pm-5:00pm)

The workshop schedule is based on USA EST Time		
Time	**Title**	**Presenter/Author**
2:50pm-3:00pm	**Opening Remarks**	**Mario Cannataro**
3:00pm-3:30pm	**S05203** CCTV: a new network-based methodology for the analysis and visualization of COVID-19 data	**Marianna Milano** (**Invited Speaker**)
3:30pm-3:50pm	**S05201** REWOC: Remote Early Warning of Out-of-ICU Crashes in COVID Care Areas using IoT Device	Rahul Krishnan Pathinarupothi, Dipu T Sathyapalan, Merlin Moni, K A Unnikrishna Menon, and Maneesha Vinodini Ramesh
3:50pm-4:10pm	**S05202** Characterization of Long COVID using text mining on narrative medicine texts	Ileana Scarpino, Chiara Zucco, and Mario Cannataro
4:10pm-4:20pm	**Virtual Coffee Break**	
4:20pm-4:40pm	**B254** Computational Electrostatics Predict Variations in SARS-CoV-2 Spike and Human ACE2 Interactions	Scott Morton and Joshua Phillips
4:40pm-5:00pm	**B652** Leveraging Drug-Target Interaction Data for the Translation of Computational Models into Clinically Actionable Interventions	Spencer Richman, Cole Lyman, Matthew Morris, Hongbao Cao, Anastasia Nesterova, Anton Yuryev, Chris Cheadle, and Gordon Broderick
	Closing Remarks	

The 5th International Workshop on Deep Learning in Bioinformatics, Biomedicine, and Healthcare Informatics (DLB2H 2021)

Date and Time: December 9

Workshop Chairs: Mingon Kang and Jung Hun Oh

MINGON KANG <mingon.kang@unlv.edu>

Time	**Title**	**Presenter/Author**
9:00am-9:10am	Welcome	Workshop Chair
9:10am-9:30am	**B261** A high specificity deep learning approach with focus on breast cancer screening	Pedro Vilares, João Ferreira, Luís Silva, and Augusto Silva
9:30am-9:50am	**B352** Human Age Estimation from Gene Expression Data using Artificial Neural Networks	Salman Mohamadi, Nasser M. Nasrabadi, Gianfranco Doretto, and Donald Adjeroh
9:50am-10:10am	**B388** A New Method Based on Deep Learning to Detect Lesions in Retinal Images using YOLOv5	Carlos Santos, Marilton Aguiar, Daniel Welfer, and Bruno Belloni
10:10am-10:30am	**B472** Classification of Chest x-ray images to Detect Pneumonia using CNN and Transfer Learning	Mustafain Rehman, Qiao Pan, Dehua Chen, and Arslan Manzoor
10:30am-10:50am	**B609** Extracting Disease-Relevant Features with Adversarial Regularization	Junxiang Chen, Li Sun, Ke Yu, and Kayhan Batmanghelich
10:50am-11:10am	**B621** Extracting Semantics of Predicates From Millions of Bio-Medical Abstracts for Inferencing New Biological Key Events and Relationships	Chih Lai, Dalma Martinović-Weigelt, Aline Serrao De Filippo, Stefan Krämer, and Carolin Poschen
11:10am-11:30am	**B800** Detecting Drug-Drug Interactions using Protein Sequence-Structure Similarity Networks	Saminur Islam, Ahmed Abbasi, Nitin Agarwal, Wanhong Zheng, Gianfranco Doretto, and Donald Adjeroh
11:30am-11:50am	**B820** Evaluating the pre-processing impact on the generalization of deep learning networks for left ventricle segmentation	Matheus Ribeiro and Fátima Nunes
11:50am-12:10pm	**B828** A Deep Learning Model for 16S rRNA Classification with Taxonomic Tree Embedding	Yue Jiang, Lin Shen, Don Adjeroh, and Jie Lin
	Closing Remarks	

Artificial intelligence in pathology (AIPath 2021)

Workshop Chairs: Chen Li, cli@xjtu.edu.cn

Thursday, December 9, 2021

The workshop schedule is based on USA EST Time

Time	**Title**	**Presenter/Author**
9:00 - 9:10 am	**Introduction to AIPath 2021**	

9:10 - 9:30 am	**B295**: A Personalized Diagnostic Generation Framework Based on Multi-source Heterogeneous Data	Jialun Wu, Ruonan Zhang, Tieliang Gong, HaiChuan Zhang, Chunbao Wang, and Chen Li
9:30 - 9:50 am	**B924**: Automated Classification Map Generation of Prostate Cancer using Deep Learning	Wenhan Tan, David E. Breen, Fernando U. Garcia, and Mark D. Zarella
9:50 - 10:10 am	**B443**: W-Net: A Two-Stage Convolutional Network for Nucleus Detection in Histopathology Image	Anyu Mao, Jialun Wu, Xinrui Bao, Zeyu Gao, Tieliang Gong, and Chen Li
	Coffee Break	
10:30 - 10:50 am	**B302**: Meta Mask Correction for Nuclei Segmentation in Histopathological Image	Jiangbo Shi, Zeyu Gao, Tieliang Gong, Chunbao Wang, and Chen Li
10:50 - 11:10 am	**B301**: Improving the Visualization and Dicomization process for the Stacked Whole Slide Imaging	Yubraj Gupta, Carlos Costa, Eduardo Pinho, and Luís Bastião Silva
11:10 - 11:30 am	**B272**: BioIE: Biomedical Information Extraction with Multi-head Attention Enhanced Graph Convolutional Network	Jialun Wu, Ruonan Zhang, Tieliang Gong, Yang Liu, Chunbao Wang, and Chen Li
	Lunch Break	
14:00 – 14:10 pm	**Introduction to prof. Chen Li's Group**	
14:10 – 14:30 pm	**B296**: A Precision Diagnostic Framework of Renal Cell Carcinoma on Whole-Slide Images using Deep Learning	Jialun Wu, Ruonan Zhang, Tieliang Gong, Xinrui Bao, Zeyu Gao, HaiChuan Zhang, Chunbao Wang, and Chen Li
14:30 – 14:50 pm	**B661**: A Contrastive Learning-based PPC-UNet for Colorectal Histopathology Whole Slide Image Segmentation	Yuxuan Wang, Xuechen Li, Jingxin Liu, Linlin Shen, Kunming Sun, and Suying Wang
14:50 – 15:10 pm	**B346**: A Transformer-based Network for Pathology Image Classification	Meidan Ding, Aiping Qu, Haiqin Zhong, and Hao Liang
	Coffee Break	
15:30 – 15:50 pm	**B347**: A Modified Convolutional Neural Network for Nuclei Classification in Histopathology Image	Haiqin Zhong, Aiping Qu, Hao Liang, and Meidan Ding
15:50 – 16:10 pm	**B297**: AEFNet: Adaptive Scale Feature Based on Elastic-and-Funnel Neural Network for Healthcare Representation	Yang Liu, Jialun Wu, Yuhua Wei, Bing Mao, Chen Li, and Tieliang Gong
16:10 – 16:30 pm	**B294**: PIMIP: An Open Source Platform for Pathology Information Management and Integration	Jialun Wu, Anyu Mao, Xinrui Bao, HaiChuan Zhang, Zeyu Gao, Tieliang Gong, Chunbao Wang, and Chen Li
	Closing Remarks	

IEEE BIBM 2021 Workshop on Long Non-Coding RNAs (BIBM-LncRNA)
Dubai, UAE, December 11-12, 2021, (5pm – 10pm) Gulf Standard Time (GST)
(i.e., December 11 -12, 2021, (8am – 1pm), New York Time (NYT))

Workshop Chairs: Don Adjeroh, Xiaobo Zhou, Ivan Martinez, and Leonard Lipovich
don@csee.wvu.edu, Leonard.Lipovich@mbru.ac.ae

workshop is being held in a mixed-mode this year : in-person in Dubai, UAE, and also remote/virtual

Time	Title	Presenter/Author
Day 1: Dec. 11, 2021		
5:00-5:10pm, GST (8:00-8:10am, NYT)	Introduction	Workshop Chairs
5:10-6:00pm GST (8:10-9:00am, NYT)	**Keynote Speaker 1: About Chomsky, patterns, non-codingRNAs and cancer therapy.**	**George Calin, PhD** (*online*) **University of Texas, MD Anderson Cancer Center, USA**
6:00-6:15pm, GST (9:00-9:15am, NYT)	*Presentations (for Accepted Papers) Session 1* A Putative LncRNA-miRNA-mRNA Interaction Network Is Identified in Targeting JAK2-V617F-positive Myeloproliferative Neoplasms	Wing Keung Lin, Nonthaphat Kent Wong, Shijing Zhang, Chun Yin Wong, Shea Ping Yip, and Chien-Ling Huang. The Hong Kong Polytechnic University, Hong Kong
6:15-6:30pm, GST (9:15-9:30am, NYT)	The pathophysiological relevance of lncRNA CTBP1-AS as an androgen receptor modulator	Ruba Ali, Svetlana Lomteva, and Olga Lyangasova. Southern Federal University, Rostov-on-Don, Russia
6:30-7:00pm, GST (9:30-10:00am, NYT)	**Invited Speaker 1:** Y Chromosome LncRNAs & Radiation Sensitivity in Lung Cancer: Don't Lose Your Maleness!	**Ivan Martinez, PhD** (*in-person*) West Virginia University, USA
7:00 - 7:40pm, GST (10:00-10:40am, NYT)	**Coffee break (dxb @ Bldg 14 will stay open)**	
7:40-8:30pm, GST (10:40-11:30am, NYT)	**Keynote Speaker 2: Deciphering roles for lncRNAs in human brain activity, disease, and death**	**Jeff Loeb, PhD** (*in-person*) **University of Illinois, Chicago, USA**
8:30-8:50pm, GST (11:30-11:50am, NYT)	*Presentations (for Accepted Papers) Session 2* A Deep Learning Approach to LncRNA Subcellular Localization Using Inexact q-mers (S08211)	Weijun Yi and Donald Adjeroh, West Virginia University, USA
8:50-9:30pm, GST (11:50-12:30pm, NYT)	***Plenary Talk 1:*** *From Organism-specific DNA Motifs to a Colon-Cancer-Survival Biomarker and Beyond*	**Isidore Rigoutsos, PhD** (*online*) **Thomas Jefferson University**
9:30-10:00pm GST (12:30-1:00pm, NYT)	**Invited Speaker 2:** NcRNAs in Sports Medicine	**Ekaterina Derevyanchuk, PhD** (*in-person*) Southern Federal University, Rostov-on-Don, Russian Federation
Day 2: Dec. 12, 2021		
5:00-5:10pm, GST (8:00-8:10am, NYT)	Opening remarks and/or MBRU co-hosting welcome	**Professor Stefan DuPlessis** (*in-person*) Dean of Research & Graduate Studies College of Medicine, MBRU, Dubai, UAE
5:10-6:00 GST (8:10-9:00am, NYT)	**Keynote Speaker 3: LncRNAs in domesticated animals**	**Thomas Derrien, PhD** (*online*) **University of Rennes 1, France**
6:00-6:15pm, GST (9:00-9:15am, NYT)	*Presentations (for Accepted Papers) Session 3* LncRNA PNKY is upregulated in breast cancer and promotes cell proliferation and EMT in breast cancer cells	Forough Hakiminia, Firooz Jannat Alipoor and Malek Hossein Asadi. Graduate University of Advanced Technology, Iran
6:15-6:30pm, GST (9:15-9:30am, NYT)	Long coding RNA interaction with gene LDLR associated with familial hypercholesterolemia (S08209)	Sofia Timofeeva, Tatiana Sherchkova, and Tatiana Shkurat. Southern Federal University, Rostov-on-Don, Russia
6:30-7:10pm, GST (9:30-10:10am, NYT)	***Plenary Talk 2:*** *RNA dynamics and epitope changes from spaceflight and plans for Mars.*	**Chris Mason, PhD** (*online*) **Weill Cornell Medicine, New York, USA**
7:10 - 7:40pm, GST (10:10-10:40am, NYT)	**Coffee break (dxb @ Bldg 14 will stay open)**	
7:40-8:20pm, GST (10:40-11:20am, NYT)	**Keynote Speaker 4: LncRNAs at the intersection of cancer pathways**	**Nadya Dimitrova, PhD** (*online*) **Yale University, USA**

8:20-8:45pm, GST (11:20-11:45pm, NYT)	**Invited Speaker 3:** GWAS and Genome Epidemiology OF LncRNA Variants: COVID- 19	**Tatiana Shkurat, ScD** (*in-person*) Southern Federal University, Rostov-on-Don, Russian Federation
8:45-9:10pm, GST (11:45-12:10pm, NYT)	**Invited Speaker 4:** The regulation, function, and the therapeutic potential of an oncogenic long noncoding RNA lnc-HLX-2-7 in group 3 medulloblastomas	**Ranjan Perera, PhD** (*on-line*) Johns Hopkins University, MD, USA
9:10-10:10pm, GST (12:10-1:10pm, NYT)	**Panel Session** ***Evolving lncRNA world: Post-genomic structure-function insights, ribosome profiling, machine learning***	**Moderator: Leonard Lipovich, PhD CoM, MBRU, Dubai, UAE**
10:10-10:20pm, GST (1:10-1:20pm, NYT)	**Closing Remarks**	

Computational methods and their applications on single cell multiomic data

WorkshopChairs: Lu Zhang, ericluzhang@hkbu.edu.hk

Time	Title	Presenter/Author
40 mins	Gene relationship inference from multimodality single cell expression data	Ye Yuan (keynote speaker), Shanghai Jiao Tong University, China
20 mins	(B461) Time-Series Analysis of Gene Correlation Networks based on Single-cell Transcriptome Data	Yasuhito Asano
20 mins	(B501) The effect of the infarct regions on vulnerability to reentry in two different stages of myocardial infarction	Cuiping Liang
20 mins	(B527) Integration of Multiple scRNA-Seq Datasets on the Autoencoder Latent Space	Andrea Tangherloni
	Coffee Break	
40 mins	Model-based Analysis of Alternative Polyadenylation Using 3' End Reads	Wei Li (keynote speaker) Rutgers School of Public Health, USA
20 mins	(B725) A Bayesian framework for inferring heterogeneity of cellular processes using single-cell data	Tianhai Tian
20 mins	(B816) Single-cell RNA sequencing data clustering using graph convolutional networks	Sheida Nabavi
	Closing Remarks	

Biological ontologies and knowledge bases (BiOK)

WorkshopChairs: Jiajie Peng, Jin Chen, Tao Wang, Yongtian Wang
jiajiepeng@nwpu.edu.cn

Time	Title	Presenter/Author
9:00-9:15	*S03201 PocaCNV: A Tool to Detect Copy Number Variants from Population-Scale Genome Sequencing Data*	Zhendong Zhang, Yongzhuang Liu, Gaoyang Li, and Yadong Wang
9:15-9:30	B288 *: Muti-view Clustering for the Integration Analysis of Gene Expression and Methylation Data*	Xiaowei Gao, Xiaogang Liu, and Xiaoke Ma
9:30-9:45	S03203: *Understanding and Reasoning About Early Signs of Sepsis: From Annotation Guideline to Ontology*	Melissa Y. Yan, Lise Husby Høvik, Lise Tuset Gustad, and Øystein Nytrø,
9:45-10:00	S03204: *Predicting Hepatoma-Related Genes Based on Representation Learning from PPI network and Gene Ontology Annotations*	Tao Wang, Zhiyuan Shao, Yifu Xiao, Xuchao Zhang, Yitian Chen, Binze Shi, Siyu Chen, Yuxian Wang, Jiajie Peng, and Xuequn Shang

10:00-10:15	S03205 *: An novel deep-learning based method for endocrine disease pathway analysis*	Ningyi Zhang and Tianyi Zang,
10:15-10:30	S03206 *: Meta-Analysis of irAEs between Dose of CTLA-4 and PD-1 Inhibitors*	Jingjie Qian, Weiyue Ding, Yue Jiang, and Li Xu
10:30-10:45	B481 *: Construction of Depression Knowledge Graph Based on Biomedical Literature*	Zepeng Li, Yufeng Zhang, Rikui Huang, Zhenwen Zhang, Jianghong Zhu, Zhihua Guo, and Bin Hu
10:45-11:00	S03208 *:Automatic detection of infectious diarrhea based on electronic medical records*	Limin Zhao, Xiang Li, Hao Pan, and Zhongyu Wei
11:00-11:15	S03202 *: Novel Multikernel Trick for Predicting Pan-Cancer Distant Metastatic Sites Using a Feature Extraction Strategy*	Yining Xu, Liyuan Zhang, Xinran Cui, Tianyi Zhao, and Yadong Wang
11:15-11:30	B289 *:Transfer Learning for Gene Ranking across Cancers*	Fei Song, Xiaogang Liu, and Xiaoke Ma
11:30-11:45	B467 *: DCAE: Selecting Discriminative Genes on Single-cell RNA-seq Data for Cell-type Quantification*	Shuhui Liu, Yupei Zhang, Jiajie Peng, and Xuequn Shang
11:45-12:00	S03207 *:Differentially Expressed Mutant Genes Reveal Potential Prognostic Markers For Lung Adenocarcinoma*	Yue Liu, Shizheng Qiu, Yang Hu, and Yadong Wang
12:00-12:15	B664 *:Discovering microbe functionality in human disease with a gene-ontology-aware model*	Yunjie Liu, Yaozhong Zhang, and Seiya Imoto
12:15-12:30	B883 *:TriGORank: A Gene Ontology Enriched Learning-to-Rank Framework for Trigenic Fitness Prediction*	Sahiti Labhishetty, Ismini Lourentzou, Michael Jeffrey Volk, Shekhar Mishra, Huimin Zhao, and Chengxiang Zhai

The 12th Integrative Data Analysis in Systems Biology (IDASB 2021)
Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics (MABM2021)

Thursday, December 9th, 2021, USA Eastern Time

Workshop Chairs: Zhongming Zhao, Huiru (Jane) Zheng, Saurav Mallik, Aman Kaushik

hy.wang@ulster.ac.uk, h.zheng@ulster.ac.uk

Time (US Eastern Time)	Title	Presenter/Author
8:30 – 8:35am	Opening Remarks	Dr. Zhongming Zhao
8:35 – 8:55am	**B271** COVID19-OBKG: An Ontology-Based Knowledge Graph and Web Service for COVID-19	Xiangwen Zheng, Yu Xiao, Wei Song, Fan Tong, Sheng Liu, and Dongsheng Zhao
8:55 – 9:15am	**B517**: A Two-stage Hybrid Feature Selection Method From Microarray Data	Weidong Xie, Yuhuan Chi, Linjie Wang, Kun Yu, and Wei Li
9:15 – 9:35am	**B428**: Prediction of hot spots in protein-protein interaction by Nine-pipeline & Ensemble Learning strategy	Jing Hu, Zonghao Li, Xiaolong Zhang, and Nansheng Chen
9:35 – 9:55am	**B655**: Automated Molecule Generation using Deep Q-Learning and Graph Neural Networks	Rıza Işık and Mehmet Tan
9:55 – 10:05am	**Coffee Break**	

10:05 – 10:25am	**B691** Analysis of SARS-CoV-2 protein interactome map	Paola Lecca, Bruno Carpentieri, Paolo Sylos Labini, Flavio Vella, Emidio Troiani, and Attilio Cavezzi
10:25 – 10:45am	**B223** Mining Cancer Cell Line-Based Drugs to Benefit KRAS (G12D) Pancreatic Adenocarcinoma Patients	Aman Chandra Kaushik, Aamir Mehmood, Ajay Kumar, Ankit Babu, Dong-Qing Wei, and Zhongming Zhao
10:45 – 11:05am	**B280** Bioinformatics analysis of miRNAs identifies enrichment of axon guidance pathway genes in ovarian cancer stem cells	Shurui Cai, Renata Fu, Kevin Wang, Na Li, Haowen Chen, Ellie Xi, Daniel Lin, Yongsheng Bai, and Qi-En Wang
11:05 – 11:25am	**B799** CGN-MPred: Cofunctional Gene Network-based Mutation Prediction from Exposure Conditions	Michael Okwori and Ali Eslami
11:25 – 11:30am	Closing Remarks	Dr. Zhongming Zhao
11:30am – 2:00pm	**Lunch Break**	
2:00 – 2:05pm	Opening Remarks	Dr. Saurav Mallik
2:05 – 2:25pm	**S10202**: ALLNet: A Hybrid Convolutional Neural Network to Improve Diagnosis of Acute Lymphocytic Leukemia	Sai Mattapalli and Rishi Athavale
2:25 – 2:45pm	**B811**: Alzheimer's Disease Classification Using Genetic Data	Subash Khanal, Jin Chen, Nathan Jacobs, and Ai-Ling Lin,
2:45 – 3:05pm	**B778**: Fine-Grained Synonymous Codon Usage Patterns and their Potential Role in Functional Protein Production	Ashley Babjac, Jun Li, and Scott Emrich
3:05 – 3:25pm	**S12201** Computational Prediction of Biological Signatures for Candidate Driver Genes Associated with Ovarian Cancer	Daniel Lin, Renata Fu, Ellie Xi, and Yongsheng Bai
3:25 – 3:35pm	**Coffee Break**	
3:35 – 3:55pm	**B875** Negatively-Associated Maximal Frequent Geneset Mining on DNA Methylation Profile	Saurav Mallik, Souvik Rakshit, Ujjwal Maulik, and Zhongming Zhao
3:55 – 4:15pm	**B233**: Finding Single and Multi-Gene Expression Patterns for Psoriasis Using Sub-Pattern Frequency Pruning	Kenneth Smith, Jamie Lea, and Sharlee Climer
4:15 – 4:35pm	**B350**: An Information-Theoretic Framework for Identifying Age-Related Genes Using Human Dermal Fibroblast Transcriptome Data	Salman Mohamadi and Donald Adjeroh
4:35 – 4:40pm	Closing Remarks	Dr. Aman Kaushik

Workshop in
Artificial Intelligence Techniques for BioMedicine and HealthCare
AIBH@BIBM2021
December 9, 2021
Workshop Chairs: Ester Zumpano, Pierangelo Veltri, Luciano Caroprese

e.zumpano@dimes.unical.it, veltri@unicz.it, l.caroprese@dimes.unical.it

Time	Title	Presenter/Author
8:00	**Workshop Introduction**	
8:05	**S16204** Implementation of Diabetes Incidence Prediction Using a Multilayer Perceptron Neural Network	Hwapyeong Song and Sanghoon Lee
8:20	**S16207** *Predicting Dominant Beat Frequency from Brain Responses While Listening to Music*	Pankaj Pandey, Nashra Ahmad, Krishna Prasad Miyapuram, and Derek Lomas

8:35	**S16209** Predicting risk of dementia with machine learning and survival models using routine primary care records	John Langham, Daniel Stamate, Charlotte Wu, Fionn Murtagh, Catharine Morgan, David Reeves, Darren Ashcroft, Evan Kontopantelis, and Brian McMillan
8:50	**S16212** Convolutional Neural Network Techniques on X-ray Images for Covid-19 Classification	Eugenio Vocaturo, Ester Zumpano, and Luciano Caroprese
9:05	**S16213** *A framework for clinical data integration and annotation for decision support*	Raffaele Giancotti, Patrizia Vizza, Giuseppe Tradigo, and Pierangelo Veltri
9:20	**B201** Control Techniques for Neuromuscular Electrical Stimulation: A Brief Survey	William Barbosa, Guilherme Temporao, and Marco Meggiolaro
9:35	**B358** *A Sequence-to-sequence Based Error Correction Model for Medical Automatic Speech Recognition*	Yu Jiang and Christian Poellabauer
9:50	**B454** *Second Language Pronunciation Training by Ultrasound-enhanced Visual Augmented Reality*	M. Hamed Mozaffari and Won-Sook Lee
10:05 – 10:15	**Coffee Break**	
10:15	**S16210** *ECG Analysis via Machine Learning Tecniques: News and Perspectives*	Eugenio Vocaturo and Ester Zumpano
10:30	**B494** *An Interpretable Temporal Convolutional Network Model for Acute Kidney Injury Prediction in the Intensive Care Unit*	Wei Huang, Yuwen Chen, Peng Wang, Xiang Liu, and Shuguang Liu
10:45	**B602** *Stacking Approach for Lung Cancer EGFR Mutation Status Prediction from CT Scans*	Alexandra Ventura, Tania Pereira, Francisco Silva, Cláudia Freitas, Antonio Cunha, and Hélder P. Oliveira
11:00	**B605** Personalized stress Monitoring AI System for Healthcare Workers	Raina Ghanshyam Bangani, Vineetha Menon, and Emil Jovanov
11:15	**S16214** Artificial Intelligence approaches on Ultrasound for Breast Cancer Diagnosis	Eugenio Vocaturo and Ester Zumpano
11:30	**B796** *An Integrated Resampling Methods for Imbalanced Sporadic Temporal Data in EHRs*	Qi Ye, Tomohiro Kuroda, Tong Ruan, Wenlong Zhang, and Xiaoling Ge
11:45	**S16206** Nonlinear EEG analysis of mindfulness training using interpretable machine learning	Pankaj Pandey and Krishna Prasad Miyapuram
12:00	**S16201** *Multi-Task Learning for Jointly Detecting Depression and Emotion*	Yazhou Zhang, Xiang Li, Lu Rong, and Prayag Tiwari,
12:15	**S16208** *Therapeutic Claims in Cannabidiol (CBD) Marketing Messages on Twitter*	Mohammad Soleymanpour, Sofia Saderholm, and Ramakanth Kavuluru
12:30 - 12:40	**Break**	
12:40	**B730** *Design and Application of a Portable Sleep Inertia Detection System Based on EEG Signals*	Yunzhi Cui, Fuze Tian, Qinglin Zhao, and Bin Hu
12:55	**S16202**	Haben Yhdego,

	Wearable Sensor Gait Analysis of Fall Detection using Attention Network	
13:10	**S16203** *An Innovative Perspective on Metabolomics Data Analysis in Biomedical Research Using Concept Drift Detection*	Jana Schwarzerova, Adam Bajger, Iro Pierdou, Lubos Popelinsky, Karel Sedlar, and Wolfram Weckwerth
13:25	**S16211** *Heart Rate Monitoring using PPG with Smartphone Camera*	Amtul Haq Ayesha, Donghao Qiao, and Farhana Zulkernine
13:40	**B226** MMDA: Disease Analysis Model Based on Anthropometric Measurement	Tao Song, Rui Zhang, Yunkun Dong, Fubin Liu, Yu Zhang, and Rongrong Peng
13:55	***B241*** *Outlier Detection for Spotting Micro-expressions*	Ranlei Cao, Xinyu Liu, Ju Zhou, Dong Chen, Dairong Peng, and Tong Chen
14:10	***B672*** *Stress Detection Using Wearable Devices based on Transfer Learning*	Jinting Wu, Yujia Zhang, and Xiaoguang Zhao
14:25	***B822*** *An AI-Powered Tool for Automatic Heart Sound Quality Assessment and Segmentation*	Valentina Roquemen-Echeverri, Peter Jacobs, Stephen Heitner, Peter Schulman, Bethany Wilson, Jorge Mahecha, and Clara Mosquera-López
14:40	**Closing Remarks**	

Workshop in
Artificial Intelligence & Big Data vs Pandemics
AI&BDvsPandemics@BIBM2021
December 9, 2021
WorkshopChairs: Ester Zumpano, Elio Masciari, Andrea Tagarelli, Eugenio Vocaturo
ester.zumpano@unical.it , tagarelli@unical.it, elio.masciari@unina.it, e.vocaturo@dimes.unical.it

Time	Title	Presenter/Author
14:55	**Workshop Introduction**	
15:00	***Invited Keynote Speaker*** ***Luciano Caroprese: Graph Neural Networks in Healthcare***	
15:30	***S17205*** Requirement analysis for an artificial intelligence model for the diagnosis of the COVID-19 from chest X-ray data	Tuomo Kalliokoski
15:45	***S17204*** COVID'19 in India: Emotion of the Nation A novel Spatio-Temporal Unsupervised Sentiment Analysis	Ruchika Malhotra, Sarthak Aggarwal, and Ridhima Bansal
16:00	***S17203*** Artificial Intelligence Based Analysis of Positive and Negative Tweets Towards COVID-19 Vaccines	Areeba Umair and Elio Masciari
16:15	S17202 COVID-19 Fake News Detection via Graph Neural Networks in Social Media	Yuqing Yang
16:30	***S17201*** MedSeq2Seq: A Medical Knowledge Enriched Sequence to Sequence Learning Model for COVID-19 Diagnosis	Yazhou Zhang, Lu Rong, Xiang Li, Prayag Tiwari, Qian Zheng, and Hui Liang
16:45	***B720*** Predicting the Length of Stay of Patients in Hospitals	Zhiwei Fu, Jia Fu, Xinran Gu, Mojtaba Moattari, and Farhana Zulkernine
17:00	***B447***	Qingqing Zhu, Pengfei Wu, Xiwei Wang, Dongyan Zhao, and Junfei Liu

	Bidirectional Distillation for Multi-Guidance Medical Dialogue Generation	
17:15	**Closing Remarks**	

Machine Learning and Artificial Intelligence in Bioinformatics and Medical Informatics *Saturday, 11th Dec. 2021, USA EST Time* *Workshop Chairs: Dr. Haiying Wang, Prof. Hui Wang, Prof. Huiru (Jane) Zheng, **Mengyuan Wang*** *hy.wang@ulster.ac.uk, h.zheng@ulster.ac.uk* ***, Wang-M5@ulster.ac.uk***		
Time (USA EST)	**Title**	**Presenter/Author**
9:00 – 9:05	**Opening remarks**	Prof. Huiru Zheng
9:05 – 9:20	**B889**: Drug-target interaction prediction based on non-negative and self-representative matrix factorization	Yihua Ye, Yuxin Chen, Zhongnan Zhang, Yuqi Wen, Song He, and Xiaochen Bo
9:20 – 9:35	**B903**: An Integrated Multi-Omics Approach for AMR Phenotype Prediction of Gut Microbiota	Pei Gao, Zheng Chen, Dong Wang, Ming Huang, Naoaki Ono, MD Altaf-Ul-Amin, and Shigehiko Kanaya
9:35 – 9:50	**B380**: Predicting lncRNA-disease associations with network based message passing	Xiaocao Hu and Yuxin Liu
9:50 – 10:05	**B440**: A Novel Class Imbalance-oriented Polynomial Neural Network Algorithm for Disease Diagnosis	Xiaohan Yuan, Shuyu Chen, Chuan Sun, and Lu Yuwen
10:05 – 10:20	**B745:** An attention based deep learning model for direct estimation of pharmacokinetic maps from DCE-MRI images	Qingyuan Zeng and Wu Zhou
10:20 – 10:35	**B404**: Deep CNN-Based Computer-Aided Diagnosis for Drowning Detection using Post-mortem Lungs CT Images	Amber Habib Qureshi, Xiaoyong Zhang, Kei Ichiji, Yusuke Kawasumi, Akihito Usui, Masato Funayama, and Noriyasu Homma
10:35 – 10:45	**Coffee Break**	
10:45 – 11:00	**B264**: TR-index: Semantic Characterization for Non-invasive Fetal ECG Signal Quality Assessment	Wei Zhong and Wei Du
11:00 – 11:15	**B506**: Identification of Depression with a Semi-supervised GCN based on EEG Data	Dixin Wang, Chang Lei, Xuan Zhang, Hongtong Wu, Shuzhen Zheng, Jinlong Chao, and Hong Peng
11:15 – 11:30	**B607**: Seizure Onset Detection Using Common Spatial Pattern and Discriminative Log-Euclidean Kernel-Based Gaussian Process	Chang Lei, Dixin Wang, Jinlong Chao, Xuan Zhang, Shuzhen Zheng, Hongtong Wu, and Hong Peng
11:30 – 11:45	**B741**: Speaker recognition with voice evoked EEG	Lang Hu, Li Zhu, Hui Huang, Guang Lin, Bin Ren, and Jianhai Zhang
11:45 – 12:00	**B647**: A combined Feature extraction technique for cancer classification based on deep learning approach	Surabhi Mishra and Mahua Bhattacharya
12:00 – 12:15	**B812**: Internal Validation of Unsupervised Clustering following an Association Accuracy Heuristic	Cornelia Fuetterer and Thomas Augustin
12:15 – 13:30	**Lunch break**	
13:30 – 13:45	**B596:** Multi-omic data integration applied to molecular tumor classification	Sarah Hannah Alves, Cristóvão Antunes de Lanna, Karla Tereza Figueiredo Leite,

		Mariana Boroni, and Marley Maria Bernardes Rebuzzi Vellasco
13:45 – 14:00	**B843**: LASSO-based feature selection for improved microbial and microbiome classification	Owen Queen and Scott Emrich
14:00 – 14:15	**B364**: An Immune Inspired Algorithm for Fault Tolerant Enhanced Multimodal Machine Learning	Mattias Cross and Valentin Radu
14:15 – 14:30	**S10201**: GenDAI - AI-Assisted Laboratory Diagnostics for Genomic Applications	Thomas Krause, Elena Jolkver, Sebastian Bruchhaus, Michael Kramer, and Matthias Hemmje
14:30 – 14:45	**B887**: A System for Cell Detection and Segmentation in Time-Lapse Microscopy	Sokratis Makrogiannis, Nagasoujanya Annasamudram, Yibing Wang, Hector Miranda, and Keni Zheng
14:45 – 15:00	**Coffee break**	
15:15 – 15:30	**B933**: A Comparison of Concept Embeddings for German Clinical Corpora	Aadil Rasheed, Florian Borchert, Lasse Kohlmeyer, Richard Henkenjohann, and Matthieu-P. Schapranow
15:30 – 15:45	**B453**: Derivation of a Cost-Sensitive COVID-19 Mortality Risk Indicator Using a Multistart Framework	Ruben Armañanzas, Adrian Díaz, Mario Martínez-García, and Santiago Mazuelas
15:45 – 16:00	**B564**: Environmental and genome-wide association study on children anxiety and depression	Bishal Thapaliya, Vince Calhoun, and Jingyu Liu
16:00 – 16:15	**B886**: Learning Personal Food Preferences via Food Logs Embedding	Ahmed Metwally, Ariel Leong, Aman Desai, Anvith Nagarjuna, Dalia Perelman, and Michael Snyder,
	Closing Remarks	

The 8th International Workshop on High Performance Computing on Bioinformatics (HPCB 2020)

WorkshopChairs: Che-Lun Hung, Huiru Zheng, Chuan Yi Tang, Chun-Yuan Lin
clhung@ym.edu.tw

Time	Title	Presenter/Author
10:00-10:25	S11201; Supercomputer Supported Online Deep Learning Techniques for High Throughput EEG Prediction	Xiang Li, Yazhou Zhang, and Jing Li
10:25-10:50	B240: An Acne Grading Framework on Face Images via Skin Attention and SFNet	Yi Lin, Yi Guan, Zhaoyang Ma, Haiyan You, Xue Cheng, and Jingchi Jiang
	Coffee Break	
11:00-11:25	B258: Toward Drug-Target Interaction Prediction via Ensemble Modeling and Transfer Learning	Po-Yu Kao, Shu-Min Kao, Nan-Lan Huang, and Yen-Chu Lin
11:25-11:50	B740: Inferring DTIs Based on Similarity Clustering and CaGCN-DTI Model from Heterogeneous Network	Aoxing li, Xiaoli Lin, and Haiping Yu
	Closing Remarks	

Computational Structural Bioinformatics Workshop (CSBW)

Workshop Chairs: Negin Forouzesh, Kamal Al Nasr
kalnasr@tnstate.edu, , neginf@calstatela.edu.

Date: Dec 11, 2021

Time	Title	Presenter/Author
10:00- 10:05 AM	Opening and Introduction	Kamal Al Nasr
10:05- 11:00 AM	Keynote Speech	Jens Meiler (Guest Speaker)

11:00-11:15 AM	[S13214] Assessing the Effects of Amino Acid Insertion and Deletion Mutations	Muneeba Jilani
11:15- 11:30 AM	[S13208] Allosteric Modulation of Small Molecule Drugs on ACE2 Conformational Change upon Binding to SARS-CoV-2 Spike Protein	Duen-Shian Wang
11:30- 11:45 AM	[S13209] Discovering SARS-CoV-2 genes and mutations adapted for humans in 2594 genomes	Weitao Sun
11:45- 12:00 PM	[B229] pH Dependent Binding Energies of Broadly Neutralizing	Scott Morton
12:00- 12:15 PM	[B644] Understanding the binding of the same ligand to GPCRs of different families	Kwabena Owusu Dankwah
12:15-12:30 PM	**Break**	
12:30-12:45 PM	[S13203] Generating Physically-Realistic Tertiary Protein Structures with Deep Latent Variable Models Learning Over Experimentally-available Structures	Fardina Fathmiul Alam
12:45-1:00 PM	[S13219] Assignment of Protein Secondary Structure Elements from Cα Backbone Trace: An Ensemble of Machine Learning Approaches, Kamal Al Nasr and Ali Sekmen	Kamal Al Nasr
1:00- 1:15 PM	[B610] Deep Learning for Assignment of Protein Secondary Structure Elements from Cα Coordinates	Bahadir Bilgin
1:15- 1:30 PM	[S13218] Calculation of Protein-Ligand Binding Free Energy Using a Physics-Guided Neural Network	Sahar Cain
1:30- 2:30 PM	**Lunch Break**	
2:30- 3:10 PM	Panel Discussion	Amarda Shehu, Xia Ning, Negin Forouzesh
3:10- 3:40 PM	Research Highlight I	Lukasz Kurgan (Guest Speaker)
3:40- 4:10 PM	Research Highlight II	Xia Ning (Guest Speaker)
4:10- 4:30 PM	**Break**	
4:30- 4:45 PM	[S13202] Antigen Binding Reshapes Antibody Energy Landscape and Conformation Dynamics	Kazi Lutful Kabir
4:45- 5:00 PM	[S13205] Designing a Survey of Structural Trends in Intermolecular Bond Formation	Justin Tam
5:00- 5:15 PM	[S13216] Characterizing the Behavior of Mutated Proteins with EMCAP: the Energy Minimization Curve Analysis Pipeline	Matthew Lee
5:15- 5:30 PM	[B773] RNA Secondary Structure Database, Analysis Tool-Set, and Case-Study Results on SARS-CoV-2	Abdullah N. Arslan
5:30- 5:45 PM	**Break**	
5:45- 6:00 PM	[S13207] A Conical Representation of Hydrogen Bond Geometry for Quantifying Bond Interactions	Chesphongphach Buranasilp
6:00- 6:15 PM	[S13212] TomoSim: Simulation of Filamentous Cryo-Electron Tomograms	Peter Scheible
6:15- 6:30 PM	[S13210] Tracing Filaments in Simulated 3D Cryo-Electron Tomography Maps Using a Fast Dynamic Programming Algorithm	Salim Sazzed
6:30- 6:45 PM	[S13213] A study on the impact of the distance types involved in protein structure determination by NMR	Antonio Mucherino
6:45-7: 00 PM	**Closing Remarks**	

Biomedical Informatics Applications in Rare Diseases

Workshop Chairs: Qian Zhu, Yanji Xu, Yongzi Chen
qian.zhu@nih.gov

Time	Title	Paper ID	Presenter/Author
1:00 – 1:10 pm	Opening Remarks		Qian Zhu
1:10 – 1:55 pm	Keynote Talk - TBD		Eric Sid
1:55 – 2:05 pm	**Coffee Break**		
2:05 – 2:25 pm	Scientific Evidence Based Knowledge Graph in Rare Diseases	S14203	Qian Zhu
2:25 – 2:45 pm	Etiology context of rare diseases in the Human Disease Ontology	S14206	Lynn M. Schriml
2:45 – 3:05 pm	Leveraging Integrative Knowledge Graphs to Improve Health Information Access for Rare Diseases	S14201	Eric Sid
3:05 – 3:15 pm	**Coffee Break**		
3:15 – 3:35 pm	Data Normalization Improves Semantic Annotation – a Case Study of Rare Disease Name Annotation	S14205	Yanji Xu

3:35 – 3:55 pm	ALLNet: A Hybrid Convolutional Neural Network to Improve Diagnosis of Acute Lymphocytic Leukemia	S14208	Sai Mattapalli
3:55 – 4:15 pm	Systematically analysis of USF3 expression in different types of cancer	S14207	Yongzi Chen
4:15 – 4:25 pm	**Coffee Break**		
4:25 – 4:45 pm	Better Understand Rare Disease Patients' Needs by Analyzing Social Media Data – a Case Study of Cystic Fibrosis	S14204	Qian Zhu
4:45 – 5:05 pm	Autonomic Dysfunction in Amyotrophic Lateral Sclerosis: Preliminary Insights from Insula Imaging and Heart Rate Variability Studies	B814 (->S14)	Alexander Brown
5:05 – 5:25 pm	A rare case of intracystic Her-2 positive young breast cancer	S14202	Xiaochen Jia
5:25 – 5:30 pm	Closing Remarks		Yanji Xu

12th International Workshop on Biomedical and Health Informatics

WorkshopChairs: Illhoi Yoo, Bo Song and Xiaohua Hu

Song,Bo bs484@drexel.edu

Dec 9 AM

Dec 9. Morning Session (8:30am-12:15pm)

Each paper has 12 minutes of presentation and 3 minutes for Q&A

The workshop schedule is based on USA EST Time

Time	Title	Presenter/Author
8:30am	B210 Target-less Drug Discovery Pipeline using Feature Driven Development (FDD) model	Rini Chandra, Mohammed Javed, Bulla Rajesh, Shahnawaz Khijmatgar, and BS Sanjeev,
8:45am	B888 Targeting Neuraminidase A of Multidrug-Resistant Streptococcus pneumoniae: Molecular Docking and Redesign of Traditional Chinese Medicine Compounds	Marianne Frances Cacacho, Hina Jasmin Ghori, Marla Endriga, and Enrique Jose Frio,
9:00am	B737 Predicting Multidrug Resistance Using Temporal Clinical Data and Machine Learning Methods	Lidia Pascual-Sánchez, Inmaculada Mora-Jiménez, Sergio Martínez-Agüero, Joaquín Rodríguez-Álvarez, and Cristina Soguero-Ruiz,
9:15am	S15208 Factors Associated with Orthopedic Patient Satisfaction - A Statistical and Decision Tree Analysis	Peng Zhao, Illhoi Yoo, and David Moxley,
9:30am	B678 Effective techniques for intelligent cardiotocography interpretation using XGB-RF feature selection and stacking fusion	Junyuan Feng, Jincheng Liang, Zihan Qiang, Xia Li, Qinqun Chen, Guiqing Liu, Jiaming Hong, Zhifeng Hao, and Hang Wei,
9:45am	**Coffee Break**	
10:00am	B842 MolCloze: A Unified Cloze-style Self-supervised Molecular Structure Learning Model for Chemical Property Prediction	Yingheng Wang, Xin Chen, Yaosen Min, and Ji Wu,
10:15am	B617 Unsupervised Learning to Subphenotype Delirium Patients from Electronic Health Records	Yiqing Zhao and Yuan Luo,
10:30am	B651 Exploring Feasibility of Truth-Involved Automatic Sleep Staging Combined with Transformer	Ziwei Yang, Dong Wang, Zheng Chen, Ming Huang, Naoaki Ono, MD Altaf-Ul-Amin, and Shigehiko Kanaya,
10:45am	B338 DeepPPPred: Deep Ensemble Learning with Transformers, Recurrent and Convolutional Neural Networks for Human Protein-Phenotype Co-mention Classification	Morteza Pourreza Shahri, Julia Schearer, Katrina Lyon, and Indika Kahanda,
11:00am	**Coffee Break**	
11:15am	B688 A Federated Adversarial Learning Method for Biomedical Named Entity Recognition	Hanyu Zhao, Sha Yuan, Niantao Xie, Jiahong Leng, and Guoqiang Wang,
11:30am	B643 CurrMG: A Curriculum Learning Approach for Graph Based Molecular Property Prediction	Yaowen Gu, Si Zheng, and Jiao Li,
11:45am	B273 VHINFGM: Virus-Host Interaction prediction via Network Fusion and Graph Mining	Qiang Zhu, Qinghui Dai, Bangcao Wang, Junping Liu, Jinxing Liang, Li Li, and Xinrong Hu,

12:00pm	B217 Automatic Medical Lesion Annotation via Feature Fusion Correlation Network	Chuan Zhou, Junjing Chen, Tian Zhang, Ximan Tang, Siying Dai, and Leiting Chen,
	Closing Remarks	

12th International Workshop on Biomedical and Health Informatics

WorkshopChairs: Illhoi Yoo, Bo Song and Xiaohua Hu

bs484@drexel.edu

Dec 9 PM

Dec 9. Afternoon Session (1:15pm-6:00pm)

Each paper has 12 minutes of presentation and 3 minutes for Q&A

The workshop schedule is based on USA EST Time

Time	Title	Presenter/Author
1:15pm	B324 Emotion and Worry Measurement Comparison of the United Kingdom and Thailand During The First COVID-19 Lockdown Situation	Thanaboon Yongthasaneekul and Sotarat Thammaboosadee,
1:30pm	B325 Physician Prescribing Changes Impacted by Patient-Initiated Online Health Searches	Michael Grasso, Alexandra Rogalski, Naveed Farrukh, Zachary Kim, and Benjamin Nosrati,
1:45pm	S15207 The Change of Orthopedic Patient Satisfaction Is Associated with the Change of Provider Sex – A Personal Level Data Mining Analysis	Peng Zhao, Illhoi Yoo, and David Moxley,
2:00pm	B362 Utilizing domain-based features to improve classification accuracy of biomedical text having bacterial associations	Vatsala Pokhrel, Divyanshu Srivastava, Krishanu Das Baksi, Kuntal Kumar Bhusan, and Sharmila Mande,
2:15pm	**Coffee Break**	
2:30pm	B236 Text Fingerprinting and Topic Mining in the Prescription Opioid Use Literature	Huyen Le, Junxiu Zhou, Weizhong Zhao, Roger Perkins, Weigong Ge, Beverly Lyn-Cook, Henry Francis, Huixiao Hong, Weida Tong, and Wen Zou,
2:45pm	B582 Early Prediction of Mortality in Critical Care Setting in Sepsis Patients Using Structured Features and Unstructured Clinical Notes	Jiyoung Shin, Yikuan Li, and Yuan Luo,
3:00pm	S15205 Textual Data Augmentation for Patient Outcomes Prediction	Qiuhao Lu, Dejing Dou, and Thien Huu Nguyen,
3:15pm	B329 Combining Query Reformulation and Re-ranking to Improve Query Expansion in Chinese EMR Retrieval	Songchun Yang, Xiangwen Zheng, Yu Xiao, Yu Yang, and Dongsheng Zhao,
3:30pm	**Coffee Break**	
3:45pm	B540 Decentralizing the storage of a DICOM compliant PACS	Rui Lebre, Luís Bastião Silva, and Carlos Costa,
4:00pm	B340 A Context-based Crowd Sourcing Tool for Quality Assurance of SNOMED CT	Kashifuddin Qazi and Ankur Agrawal,
4:15pm	B603 Modified Linear Fascicle Evaluation (mLiFE) for Improving the Fiber Tractography of Stroke Patients using Diffusion MRI	Yujia Li, Yunxiang Ge, Weibei Dou, and Guangzhu Zhang,
4:30pm	B363 Event-related fMRI over-segmentation by Rough Simple Linear Iterative Clustering applied in schizophrenia diagnosis	Claudia Cruz-Martinez and Carlos A. Reyes-Garcia,
4:45pm	**Coffee Break**	
5:00pm	B834 Optical Imaging for Monitoring Pectus Excavatum Therapy	Nahom Kidane, Yuzhong Shen, and Robert Kelly,
5:15pm	B410 Cross-Modality Generation of Amyloid PET from FDG PET for Alzheimer's Disease Diagnosis	Yu Fu, Le Xue, Yi Liao, Lin Chen, Meng Niu, Hong Zhang, Mei Tian, and Cheng Zhuo,
5:30pm	B595 Joint feature and task aware multi-task feature learning for Alzheimer's disease diagnosis	Peng Cao, Wei Liang, Kai Zhang, Shanshan Tang, and Jinzhu Yang,
5:45pm	B797 A New Classification Algorithm and a New Oversampling Method of Mapping Common Data Elements to the BRIDG Model	Shengyu Li, Yulong Huang, Mohan Vamsi Kasukurthi, Jiajie Yang, Dongqi Li, Guanhuan Yang, Jingwei Lin, Shaobo Tan, David Bourrie, Bin Ma, Glen Borchert, and Jingshan Huang,
	Closing Remarks	

12th International Workshop on Biomedical and Health Informatics

WorkshopChairs: Illhoi Yoo, Bo Song and Xiaohua Hu

Long,Xiyao xl452@drexel.edu

Dec 10 am

Dec 10. Morning Session (10:00am-12:30pm)

Each paper has 12 minutes of presentation and 3 minutes for Q&A

The workshop schedule is based on USA EST Time

Time	Title	Presenter/Author
10:00am	B246 THE MODEL OF THE MULTILAYER BLOOD-FILLED BIOLOGICAL TISSUE	Elizabeth Bekh, Serhii Mamilov, and Igor Bekh,
10:15am	B926 Comparison of Responses of Ion-Channel and Simplified Pacemaker Cell Models on External Stimulation	Maxim Ryzhii and Elena Ryzhii,
10:30am	B852 SURFR: A Real-Time Platform for Non-Coding RNA Fragmentation Analysis Using Wavelets	Mohan Vamsi Kasukurthi, Dominika Houserova, Yulong Huang, Shengyu Li, Dongqi Li, Jingwei Lin, Guanhuan Yang, Shaobo Tan, David Bourrie, Bin Ma, Glen Borchert, and Jingshan Huang,
10:45am	B266 Enhanced Bayesian detection for copy number alterations from next-generation sequencing data	Zhenhua Yu and Fang Du,
11:00am	B544 A probabilistic model for pathway-guided gene set selection	Inyoung Kim, Sangseon Lee, Youngkuk Kim, Hugh Namkoong, and Sun Kim,
	Coffee Break	
11:15am	B861 SNPs Filtered by Allele Frequency Improve the Prediction of Hypertension Subtypes	Yiming Li, Sanjiv Shah, Donna Arnett, Ryan Irvin, and Yuan Luo,
11:30am	S15210 Spectra-based Classification of Audiovisual and Visuospatial Face-name Associative Memories using EEG	Femi William, Feng Zhu, Ramazan Aygun, and Mattie Ponter,
11:45am	B871 Real-Time EMG Signal Classification via Recurrent Neural Networks	Reza Bagherian Azhiri, Mohammad Esmaeili, and Mehrdad Nourani,
12:00pm	B281 Decoding Imagined Speech Using Wearable EEG Headset For a Single Subject	Akshi Akshi and Madhav Rao,
12:15am	B733 Omics feature learning for cross individual ALS disease identification with EMG signal	Chenxu Hao, Yali Qu, Xujian Wang, Shenghua Teng, and Yan Liu,
	Closing Remarks	

12th International Workshop on Biomedical and Health Informatics

WorkshopChairs: Illhoi Yoo, Bo Song and Xiaohua Hu, Xiyao Long

xl452@drexel.edu

Dec 10 pm

Dec 10. Afternoon Session (1:30pm-4:15pm)

Each paper has 12 minutes of presentation and 3 minutes for Q&A

The workshop schedule is based on USA EST Time

Time	Title	Presenter/Author
1:30pm	B624 The Design and Implementation of Perioperative Adverse Events Advisory and Command System	Xiang Liu, Ju Zhang, XiaoGuang Lin, AnLong Sun, Da Zhang, and Wei Huang,
1:45pm	B306 Evaluation of a Prescription Outlier Detection System in Hospital's Pharmacy Services	Henrique D. P. dos Santos, Ana Helena D. P. S. Ulbrich, and Renata Vieira,
2:00pm	S15202 Why Is a Rule-based Shock Early Warning System Not Accurate: a Case Study	Tianhua Tang, Shan Nan, Ling Lin, Xinhao Jin, Weichao Liao, and Xudong Lv,
2:15pm	S15209 Robust Metabolic Syndrome Risk Index Based on Triangular Areal Similarity	Hyunseok Shin, Simon Shim, Charles Choo, Doosung Hwang, Yunmook Nah, and Sejong Oh,
2:30pm	B530 Comparing the Predictive Power of Heart Failure Hospitalisation Risk Scores in the Diabetic Outpatient Clinic and Primary Care Settings	Alessandro Guazzo, Enrico Longato, Gian Paolo Fadini, Giovanni Sparacino, Alessandro Battaggia, Bruno Franco-Novelletto, Maurizio Cancian, Massimo Fusello, Angelo Avogaro, and Barbara Di Camillo,
2:45pm	**Coffee Break**	

3:00pm	B537 Using machine learning approach to predict short-term mortality risk of acute myocardial infarction after emergency admission	Tun-Wen Pai and Po-Cheng Peng,
3:15pm	B375 A simulation study: electrical alternances during ischemia 1a, 1b and myocardial infarction	Cuiping Liang, Jun Liu, Kuanquan Wang, and Qince Li,
3:30pm	B670 A mild depression recognition with classifier combination method based on differential evolution	Yalin Li, Bin Hu, Fa Zheng, and Xiangwei Zheng,
3:45pm	S15206 Analysis of Depression Magnetoencephalogram Based on Multiscale Mutual Mode Entropy	Yan Huang and Jun Wang,
4:00pm	B919 A PDR/VIO Loosely coupled Indoor Positioning System via Robust Particle Filter	Xinwei Hu, Ziqi Wang, Ge Jin, Weilong Huang, Lingxiang Zheng, Ao Peng, Huiru Zheng, and Haiying Wang,
	Closing Remarks	

The Fifth Workshop on Computational Methods for the Immune System Function (CMISF 2021)

Date, Time: Dec, 9th 2021 – 09:00; *Online meeting*

Workshop Chairs: Francesco Pappalardo, Giulia Russo, Marzio Pennisi

francesco.pappalardo@unict.it

Time	Title	Presenter/Author
09:00	**Welcome message**	
09:05	*S20201, "Computational Modeling of Chimeric Antigen Receptor (CAR) T-Cell Therapy of a Binary Model of Antigen Receptors in Breast Cancer"*	Kerri-Ann Norton
09:25	*S20202, "The Monoclonal Antibody Pembrolizumab Alters Dynamics of the Human Programmed Cell Death Receptor 1 (PD-1)"*	Rudolf Karch
09:45	*S20203, "A functional data analysis approach to assess the prognostic value of SARS-CoV-2 infections surrogate data"*	Paola Stolfi
10:00-10:30	**Coffee Break**	
10:30	*S020204, "Correctness of Cell Labels in Public Single Cell Transcriptomics Datasets"*	Xin Lin
10:50	*S20205, "Applications of single cell profiles of PBMC: Improvements of cell type classification"*	Luning Yang
11:10	*S20206, "Cancer Incidence & Cancer Mortality vis-à-vis Correlation, Co-integration and Causation"*	Ping Zhang
11:30	*S20207, "A data-driven model for the generation of Virtual Cohorts"*	Enrico Mastrostefano
11:50	*S20208, "Modelling the Human Immune System Response to the ChAdOx1 nCoV-19 Vaccine"*	Maicom P. Xavier
12:10	*S20209, " A multi-step and multi-scale bioinformatic approach to investigate potential source of cross-reactive immunity against SARS-CoV-2 UK variant"*	Valentina Di Salvatore
12:30-14:00	**Lunch**	
14:00	*S20210, "Classification of Single Cell Types using Small Sets of Expressed Genes: Comparative Analysis of Supervised Machine Learning Methods"*	Aleksandar Veljkovic
14:20	*S20211, "PBMC Cell Classification from Single Cell mRNA Expression by Artificial Neural Networks, Profiles, Gene Markers, and Protein Markers"*	Minjie Lyu
14:40	*S20212, " Multiformalism modeling and simulation of immune system mechanisms"*	Giuliana Franceschinis
15:00	*S20213, "Socio-demographic, lifestyle, and Neuropsychological risk factors on the development of Alzheimer's disease"*	Ping Zhang
15:20	*S20214, "Uncertainty quantification and sensitivity analysis for in silico trial platform: a preliminary application on UISS-MS"*	Avisa Maleki

15:40	**Closing Remarks**

5th Edition of the Workshop on Processes and Algorithms for Healthcare and Life Quality Improvement – CBPBL 2021

WorkshopChairs: Pierangelo Veltri, Patrizia Vizza

veltri@unicz.it

Dec 9, Afternoon Session (3:00pm – 7:00pm)

The workshop schedule is based on USA EST Time

Time	Title	Presenter/Author
3:00pm – 3:20pm	S19207 "Annotations for clinical data enrichment"	Patrizia Vizza, Giuseppe Tradigo, Elvis Kallaverja, Maria Giulia Cristofaro, Giuseppe Lucio Cascini, and Pierangelo Veltri
3:20pm – 3:40pm	S19206 "Leveraging Network Embedding in the task of Local Network Alignment"	Pietro Hiram Guzzi, Giuseppe Tradigo, and Pierangelo Veltri
3:40pm – 4:00pm	S19205 "A Tool for clinical data annotation of parotid neoplasia"	Patrizia Vizza, Giuseppe Tradigo, Ivan Brunelli, and Pierangelo Veltri
4:00pm – 4:20pm	S19204 "Estimation of Asthma Severity from Electronic Prescription Records using British Thoracic Society and Scottish Intercollegiate Guidelines"	Holly Tibble, Aziz Sheikh, and Athanasios Tsanas
4:20pm – 4:40pm	B589 "Sleep Stage Classification Using Non-Invasive Bed Sensing and Deep Learning"	Nikhil Vyas, Kelly Ryoo, Hosanna Tesfaye, Ruhan Yi, and Marjorie Skubic
4:40pm – 5:00pm	B684 "A Fast-Processing Pipeline for Three-dimensional Visualization of Acute Ischemic Stroke lesion topography"	Huiling SHAO, Lawrence CHAN, Fiona CHEN, Qilin MA, Zhiyu SHAO, and Heng DU
5:00pm – 5:20pm	**Coffee Break**	
5:20pm – 5:40pm	S19203 "Hierarchical Clustering of Multi-Study Depression Data Yields Four Symptom Clusters"	Lu Wang, Mark Wang, Haoyan Jiang, Sachinthya Lokuge, Geneva Mason, Kathryn Fotinos, and Martin Katzman
5:40pm – 6:00pm	S19202 "Prioritization of Multi-level Risk Factors, and Predicting Changes in Depression Ratings after Treatment Using Multi-Task Learning"	Lu Wang, Mark Chignell, Haoyan Jiang, Sachinthya Lokuge, Geneva Mason, Kathryn Fotinos, and Martin Katzman
6:00pm – 6:20pm	S19201 "Experimental Survey on Power Dissipation of k-mer-Handling Data Structures for Mobile Bioinformatics"	Franco Milicchio, and Mattia Prosperi
6:20pm – 6:40pm	B807 "Highly scalable medical imaging repository based on Kubernetes"	Tibério Baptista, Luís Silva, and Carlos Costa
6:40pm – 7:00pm	B939 "FedIO: Bridge Inner- and Outer-hospital Information for Perioperative Complications Prognostic Prediction via Federated Learning"	Sun Weihao, Chen Yiqiang, Yang Xiaodong, Cao Jiangbei, and Song Yuxiang
	Closing Remarks	

The 2nd International Workshop on Deep Learning Techniques for Bioinformatics and Biomedicine (DLBIBM 2021)(1)

Date: 09 December 2021

WorkshopChairs: Prof. Yu-Chih Wei, chihua0826@gmail.com

Time	Title	Presenter/Author
08:55-09:00	Welcome	Yu-Chih Wei
09:00-09:20	S21203: "Dynamic Aging Weight Scheme for Trust Model in Internet of Medical Things"	Weidong Fang, Chunsheng Zhu, Tian Min Ma, Wuxiong Zhang, Baoqing Li, Li Yi, Fangchen Xu, Tianchen Zhang, and Bo Wang
09:20-09:40	S21206: "FAM: Fully Attention Module for Medical Image Segmentation"	Guoping Xu and Xinglong Wu
09:40-10:00	S21207: "A Novel PSO-SGD with Momentum Algorithm for Medical Image Classification"	Xiaojuan Liu, Ruiqi Feng, Shangbo Zhou, and Ye Yang

10:00-10:20	S21208: “Subway driver behavior detection method based on multi-features fusion”	Xinrong Hu, Tao Wang, Junjie Huang, Tao Peng, Junping Liu, and Ruhan He
10:20-10:40	**Coffee Break**	
10:40-11:00	S21210: “Motion compensation and object detection for neuromorphic camera”	Yuxin Wan, Rong Fei, Yu Tang, Xueru Bai, Guo Xie, and Aimin Li
11:00-11:20	S21211: “A method on Face Recognition of Contaminated Small Sample”	Jie Li, Zhuoyang Li, Xiu Xu, and Guoliang Jing
11:20-10:40	B692: “De Novo Drug Design via Multi-Label Learning and Adversarial Autoencoder”	Qing Ye, Xiaolong Zhang, and Xiaoli Lin
11:40-12:00	B882: “Evolution-Informed Neural Networks for Microbiome Data Analysis”	Michael Ito, Yannik Glaser, and Peter Sadowski
	Closing Remarks	

The 2nd International Workshop on Deep Learning Techniques for Bioinformatics and Biomedicine (DLBIBM 2021)(2)

Date: 10 December 2021

WorkshopChairs: Prof. Yu-Chih Wei, chihua0826@gmail.com

Time	Title	Presenter/Author
08:35-08:40	Welcome	Hsiao-Ting Tseng
08:40-09:00	S21201: “Few-Shot Learning For Auromatic Intracranial Hematoma Segmentation”	Xiaojuan Liu, Shiyu Zhu, Wengsong Yang, and Shangbo Zhou
09:00-09:20	S21202: “A Deep Learning Model for Ancestry Estimation with Craniometric Measurements”	Yibo Dong, Andrew Gao, Ian Hou, Kevin Ma, Ruoxian Huang, Yonsheng Bai, and Xiaoming Liu
09:20-09:40	S21204: “Fusion Branch Network with Class Learning Difficulty Loss Function for Recongnizition of Haematoma Expansion Signs in Intracerebral Haemorrhage”	Ye Yang, Shanxiong Chen, Duo Tan, Rui Yao, Shiyu Zhu, Yuanyuan Jia, Wensong Yang, and Yiqing Shen
09:40-10:00	S21205: “Cascaded Cross-Domain Fusion of Virtual Try-On”	Xinrong Hu, Junyu Zhang, Tao Peng, Mingfu Xiong*, Feng Yu, Li Li, and Min Li
10:00-10:20	S21209: “A Novel Activation Maximization-based Approach for Insight into Electrophysiology Classifiers”	Charles Ellis, Mohammad Sendi, Robyn Miller, and Vince Calhoun
10:20-10:40	**Coffee Break**	
10:40-11:00	B268: “An Causal XAI Diagnostic Model for Breast Cancer Based on Mammography Reports”	Dehua Chen, Hongjin Zhao, Jianrong He, Qiao Pan, and Weiliang Zhao
11:00-11:20	B345: “Gene expression RNA-sequencing survival analysis of high-grade serous ovarian carcinoma: a comparative study”	Elena Spirina Menand, Nisrine Jrad, Jean-Marie Marion, Alain Morel, and Pierre Chauvet
11:20-10:40	B497: “DPLA: prediction of protein-ligand binding affinity by integrating multi-level information”	Wei Wang, Bin Sun, Dong Liu, Xianfang Wang, and Hongjun Zhang
11:40-12:00	B509: “DK-Consistency: A Domain Knowledge Guided Consistency Regularization Method for Semi-supervised Breast Cancer Diagnosis”	Xiaozheng Xie, Jianwei Niu, Xuefeng Liu, Qingfeng Li, Yong Wang, and Shaojie Tang
	Closing Remarks	

RRoBin 2021

WorkshopChairs:

Suyeon Kim, Hesham Ali, Sanjukta Bhowmick, Kirk Gasper, Kate Cooper

kmcooper@unomaha.edu

Time	Title	Presenter/Author
9:00am CST (10am ET)	Welcome	Kate Cooper
9:15am CST (10:15am ET)	Keynote	Kate Cooper

10:00am CST (11:00am ET)	**Coffee Break**	
10:15am CST (11:15am ET)	B837: A Multi-Factorial Assessment of Functional Human Autistic Spectrum Brain Network Analysis	Oswaldo Artiles and Fahad Saeed
10:45am CST (11:45pm ET)	B532: A Reproducible ETL Approach for Window-based Prediction of Acute Kidney Injury in Critical Care Unit and Some Preliminary Results with Support Vector Machines	Isabela Chiorean, Beatrice Amico, Carlo Combi, and John Holmes
11:15am CST (12:15pm ET)	B450: Confirmatory Factor Analysis on Mental Health Status using ABCD Cohort	Britny Farahdel, Bishal Thapaliya, Pranav Suresh, Bhaskar Ray, Vince Calhoun, and Jingyu Liu
11:35pm CST (12:35pm ET)	Discussion	Hesham Ali
12:00pm CST (1:00pm ET)	**Closing Remarks**	

The 2nd International Workshop on Machine Learning for EEG Signal Processing

December 10th, 2021 (9am-4pm)

Workshop Chair: Prof. Larbi Boubchir

larbi.boubchir@univ-paris8.fr

Time	Paper ID	Title	Presenter/Author
9:00-9:10	**Opening Workshop**		
9:10-9:30	S25203	Transfer Learning for EEG-based Biometric Verification	Emanuele Maiorana
9:30-9:50	S25205	Automated Data Cleaning for the Muse EEG	Arnaud Delorme and Jeffery Martin
9:50-10:10	S25207	Predicting learning stages during the serial reactiontime task using event related potentials	Ishita Arun, Pankaj Pandey, Goldy Yadav, and Krishna Prasad Miyapuram
10:10-10:30	S25209	Validating the wearable MUSE headset for EEG spectral analysis and Frontal Alpha Asymmetry	Cédric Cannard, Helané Wahbeh, and Arnaud Delorme
10:30-10-50	**Coffee Break**		
10:50-11:10	S25210	Hyperparameter selection for reliable EEG denoising using ASR: a benchmarking study	Velu Prabhakar Kumaravel, Marco Buiatti, and Elisabetta Farella
11:10-11:30	S25211	Assessing learned features of Deep Learning applied to EEG	Dung Truong, Scott Makeig, and Arnaud Delorme

11:30-11:50	B209	EEG Analysis for Intellectual Developmental Disorder	Kyle Oda and Narges Norouzi
11:50-12:10	S25201	Seizure prediction with long-term iEEG recordings: What can we learn from data nonstationarity?	Hongliu Yang, Matthias Eberlein, Jens Müller, and Ronald Tetzlaff
12:10-12:30	S25208	Seizure Forecasting from Subcutaneous EEG Using Long Short Term Memory Neural Networks: Algorithm Development and Optimization	Tal Pal Attia, Pedro F. Viana, Mona Nasseri, Mark P. Richardson, and Benjamin H. Brinkmann
	Lunch Break		
13:30-13:50	B439	A Grouped Dynamic EEG Channel Selection Method for Emotion Recognition	Liying Yang, Si Chao, Qingyang Zhang, Pei Ni, and Dunhui Liu
13:50-14:10	S25204	Cross-subject And Cross-device Wearable EEG Emotion Recognition Using Frontal EEG Under Virtual Reality Scenes	Feng Kuang, Lin Shu, Haoqiang Hua, Shibin Wu, Lulu Zhang, Xiangmin Xu, Yunhe Liu, and Man Jiang
14:10-14:30	S25206	Intelligent Feature Selection for EEG Emotion Classification	Liying Yang, Qing Chen, Qingyang Zhang, and Si Chao
14:30-14:50	S25213	Emotion Recognition from Multi-channel EEG Data through A Dual-pipeline Graph Attention Network	Xiang Li, Jing Li, Yazhou Zhang, and Prayag Tiwari
14:50-15:10	B522	Spiking Neural Networks for Classification of Brain-Computer Interface and Image Data	Václav Honzík and Roman Mouček
15:10-15:30	S25202	Adaptive Sequence-Based Stimulus Selection in an ERP-Based Brain-Computer Interface by Thompson Sampling in a Multi-Armed Bandit Problem	Tianwen Ma, Jane Huggins, and Jian Kang
15:30-15:50	S25212	A Decoding algorithm for Non-invasive SSVEP-based Drone Flight Control	Abdelhadi Hireche, Yasmine Zennaia, Redouane Ayad, and Abdelkader Nasreddine Belkacem
15:50-16:00	**Closing Remarks**		

International Workshop on Biological Network Analysis and Integrative Graph-Based Approaches (IWBNA 2021) *WorkshopChairs: Young-Rae Cho, Mingon Kang, and Ananda Mondal* ***youngcho@yonsei.ac.kr***		
Time	**Title**	**Presenter/Author**
8:30 – 12:30 (EST)	(B758) Differential Identification of Prodromal Stages of Alzheimer's Disease Using Tissue Probability Map (TPM) based Network	Abdulyekeen Adebisi, Gonuguntla Venkateswarlu, Ho-Won Lee, and Kalyana Veluvolu
	(B577) Developing Attractor Analysis Techniques for a Compositional Boolean Network Framework	Hanin Abdulrahman and Jason Steggles
	(B708) Identifying functional evolution processes of cancer according to regression residuals network	Bolin Chen, Manting Yang, and Xuequn Shang
	(B836) Improving Negative Sampling in Graph Neural Networks for Predicting Drug-Drug Interactions	Alexandra-Ioana Herghelegiu and Haiping Lu
	(B208) Problem Oriented Diagnostic Service for Describing Clinical Cases based on the GraphQL POMR Approach	Sabah Mohammed, Jinan Fiaidhi, and Darien Sawyer
	(B706) Prediction of Drug-Target Interactions Using Molecular Graph and GDNet-DTI Model	Shuai Xu, Xiaoli Lin, and Haiping Yu
	(S26201) Graph Theoretic Approach for the Analysis of Comprehensive Mass-Spectrometry (MS/MS) Data of Dissolved Organic Matter	Muhammad Usman Tariq, Dennys Leyva, Francisco Fernandez Lima, and Fahad Saeed
	(S26203) Extended Network-Based Statistics for Measuring Altered Directed Connectivity Components in the Human Brain	Yunxiang Ge, Zhe Yang, Yutong Feng, Yu Pan, and Weibei Dou
	(S26202) The Anti-atherosclerosis Protein Regulation Network Delivered by Onion Quercetin	Guang Zheng

CBEAS - Computational Biofilm Engineering and Applications workshop Chair: Etienne Z. Gnimpieba			
Time (EST)	**Paper ID**	**Title**	**Presenter/Author**
Session I		2 Speakers and 5 papers	Session Chair: Ram /Peta
9:00 – 10:00	Keynote Speaker #1:	Dr. Paul Stoodley: Bacterial biofilms – a diagnostic and control challenge in medicine and industry	
10:00-10:20	S24205	Automatic Extension of Medical Subject Headings (MeSH) Thesaurus to Emerging Research	Gasper K.
10:20-10:40	S24203	Integration of text mining and biological network analysis to access essential genes in Desulfovibrio alaskensis G20	Priya S.
10:40-11:00	S24201	GenNER - A highly scalable and optimal NER method for text-based gene and protein recognition	Ernest K.

11:00-11:20	S24202	Discovery of genes associated with sulfate-reducing bacteria biofilm using text mining and biological network analysis	Abhilash K.
11:20-11:40	S24208	Self-supervised Learning Approach to Detect Corrosion Products in Biofilm images	Vidya B.
11:40-12:40	Keynote Speaker #2:	Dr. Matthew Fields Microbial Biofilms: Complex & Heterogenous Bio-Systems at the Micro-Scale	
12:00 – 01:00		**Coffee Break**	
Session II		**1 Speaker and 6 papers**	**Session Chair: Millind/Bomgni**
01:00 - 02:00	Keynote Speaker #2	Dr. Sen Subramanian A computational framework to predict gene regulatory networks associated with rhizobial colonization and biofilm formation in soybean	
02:00 - 02:20	*S24204*	Identifying genes involved in Biocorrosion from the literature using text-mining	Payal T.
02:20 - 02:40	S24212	Prediction of essential genes in G20 using machine learning model	Ernest K.
02:40 - 03:00	S24211	Segmentation of Bacterial Cells in Biofilms Using an Overlapped Ellipse Fitting Technique	Dilanga A.
03:00 - 03:20	S24210	Machine Learning Approaches to Predict Microbial Corrosion Protection Mechanisms of Graphene	Cody Allen
03:00 - 03:20	S24215	Machine Learning Approach to Study the Role of Metabolites on Metal-Microbe Interactions	Gadhamshetty Venkataramana
03:20 - 03:40	S24214	Workflow for Anti-biofilm Peptide Prediction	Matthew Alaba
03:40 - 04:40		Closing Remarks	
		END	