18th November 2023 (8:15 – 8:30)
Conference Opening

8:30-8:35	**Address of Honorary Conference Chair: Prof. Xindong Wu**
8:35-8:40	**Address of Conference Chair: Prof. Hong Mei**
8:40-8:45	**Address of Program Chair: Prof. Ying Xu**
8:45-8:50	**Address of AMSS CAS Representative: Prof. Xiaoshan Gao**

18th November 2023 (8:30 – 11:50)
Keynote Speeches & Panels

Time	Activity
	Keynote Speeches (Session Chair: Ying Xu)
8:50-9:35	**Keynote 1**: Phenotypes and Research of Chinese Medicine Constitution **Qi Wang**, Beijing University of Chinese Medicine, China
9:35-10:20	**Keynote 2**: A Time to Build an Infrastructure of Genome Information for Health in China **Jun Yu**, National Biosafety Evidence Foundation, Xi'an Jiaotong University
10:20-10:40	**Tea Break**
	Panels (Session Chair: Hong Yu)
10:40-11:10	**Panel 1**: On the Big Model ZiDongTaiChu and its application in Medical Artificial Intelligence **Bo Xu**, Chinese Academy of Sciences, China
11:10-11:40	**Panel 2**: GPT-AI based Target Discovery and Drug Design: Recent Advances and Future Perspectives **Jing He**, University of Oxford, UK
11:40-12:10	**Panel 3**: A Real-time Tool for Understanding and Monitoring COVID Trends and Spread based on Self-reporting Tweets **Dong Xu**, University of Missouri, USA
12:10-14:00	**Buffet lunch and lunch break**

18th November 2023 (14:00 – 17:30)
Parallel Track I

Time	Title
Session 1: Automated Medicine and Automated AI (Chair: Hai Jin, Wenping Zheng)	
14:00-14:15	Path Signature Representation of Patient-Clinician Interactions as a Predictor for Neuropsychological Tests Outcomes in Children: A Proof of Concept
14:15-14:30	A Method and Practice for Menopausal Disease Prediction based on Knowledge Graph
14:30-14:45	Neural Network-Based Simulation and Circuit Analysis of Sub-Centimeter Coils for Implantable Medical Devices
14:45-15:00	SLMF: Adaptive Short-Long Multi-stage Fusion for Emotion Recognition in Conversation
15:00-15:10	Double-rule Causal Feature Selection in Risk Factor Mining for Disease Diagnosis
15:10-15:20	Exploring the metaverse in hepatobiliary and pancreatic surgery: a case report
15:20-15:30	Outside-knowledge Visual Question Answering for Visual Impaired People
15:30-15:40	An Online Tool for Understanding and Monitoring COVID-19 Trends and Spread Based on Self-reporting Tweets
15:40-15:50	Large language models improve Alzheimer's disease diagnosis using multi-modality data
15:50-16:00	ShennongGPT: A Tuning Chinese LLM Model for Medication Guidance
16:00-16:10	Analyzing the Sleep and Anxiety States of an Individual with Anxiety Disorder by Utilizing Deep Neural Networks and Heart Rate Variability Based on Fingertip Pulse
16:10-16:30	**Tea Break**
Session 2: Medical Images and Collective AI (I) (Chair: Zili Zhang)	
16:30-16:45	GREAT-IQA: Integrating Global Perception and Local Task-Specific Information for CT Image Quality Assessment
16:45-17:00	OUSC-Net: Optimization-based Unfolding network for Super-Resolution Reconstruction of CEST-MRI
17:00-17:15	MED-INPAINT: Medical Image Synthesis using Multi-Level Conditional Inpainting with a Denoising Diffusion Probabilistic Model and Adaptive Contrast Priors
17:15-17:30	SliceProp: A Slice-wise Bidirectional Propagation Model for Interactive 3D Medical Image Segmentation

18th November 2023 (14:00 – 17:40)
Parallel Track II

Time	Title
Session II: Biomedical Informatics and Bionic AI (I) (Chair: Yi Zhang, Huajun Chen)	
14:00-14:15	Predicting Type 2 Diabetes Using Causal Knowledge Injection-Based Neural Networks
14:15-14:30	scGAT: a Cell-type Annotation Framework for Single-cell Transcriptomics using Graph Attention Network and Meta Learning
14:30-14:45	Nucleus Detection Based on Adversarial Domain Adaptation with Cross-Domain Consistency
14:45-15:00	Elucidating Spatial Complex Structures from Mass Spectrometry Imaging with Deep Multimodal Model
15:00-15:15	Multi-view Disease-symptom Association Prediction Based on Disease Knowledge Graph Embedding
15:15-15:30	Prompting Meta-Learned Hierarchical Graph Network for Molecular Property Prediction
15:30-15:45	Discovery of Disease Evolution by Graph Curvature
15:45-16:00	Out-of-Distribution Generalized Dynamic Graph Neural Network for Human Albumin Prediction
16:00-16:15	CellMirror: Deciphering Cell Populations from Spatial Transcriptomics Data by Interpretable Contrastive Learning
16:15-16:30	**Tea Break**
Session II: Biomedical Informatics and Bionic AI (II) (Chair: Fuzhong Xue)	
16:30-16:45	Subnetwork Mining based on Structure Entropy for Analyzing Depression Disease
16:45-17:00	XG-DTA: Drug-target Affinity Prediction based on Drug Molecular Graph and Protein Sequence combined with XLNet
17:00-17:10	CAHAN: Drug-disease Association Prediction Based on Cross-attention Mechanism
17:10-17:20	Graph Generation with Recurrent and Graph Neural Networks
17:20-17:30	Age-Specific Pediatric Sepsis Diagnosis: Machine Learning Analysis of Key Laboratory Indicators

18th November 2023 (14:00 – 17:00)
Poster

Paper ID	Title
ID 16	Privacy Dilemma of Combination of Traditional Chinese Medicine and AI Based on Case Study
ID 77	Application of Digital and Intelligent Technology in Hepatopancreatobiliary Surgery
ID 43	Optimization of Implantable Ultrasonic Friction Nano Wireless Power Supply Circuits
ID 46	ToC-Net: Combining Channel Attention for Targeted Optimization of Stroke Segmentation Networks
ID 99	A Multivariate Logistic Regression Model with Over Sampling for Bronchopulmonary Dysplasia Associated with Pulmonary Hypertension in Very Preterm Infants: A Multi-center Retrospective Study
ID 32	HPC-Atlas: Computationally Construction A Comprehensive Atlas of Human Protein Complexes
ID 39	Causal Feature Selection for Cancer Biomarker Identification from RNA-seq Data
ID 42	Molecular Property Prediction by Contrastive Learning with Attention-guided Positive Sample Selection
ID 47	Artifact Segmentation in Endoscopic Images: Dataset and Model
ID 48	Using CNN and Transformer for Differential Diagnosis of Intestinal Ulcerative Diseases

19th November 2023 (8:30 – 11:50)
Keynote Speeches & Panels

Time	Activity
Keynote Speeches (Session Chair: Weiru Liu)	
8:30-9:15	**Keynote 1**: An AI-based Pipeline for Personalized Neoantigen Discovery and Validation **Ming Li**, University of Waterloo, Canada
9:15-10:00	**Keynote 2**: Digital Life Systems, AI Patients and AI Precision Medicine **Xuegong Zhang**, Tsinghua University, China
10:00-10:20	**Tea Break**
Panels (Session Chair: Shihua Zhang)	
10:20-10:50	**Panel 1**: Clinical Practice Empowered by AI **Shusaku Tsumoto**, Faculty of Medicine, Shimane University, Japan
10:50-11:20	**Panel 2**: Graph Representation Learning of Single-cell Omics Data **Qin Ma**, The Ohio State University, USA
11:20-11:50	**Panel 3**: Towards Understanding Complex Diseases from a Pan-disease View through Ultra-large-scale bBiomedical Data Mining **Xin Gao**, The King's University of Saudi Arabian
11:50-14:00	**Buffet lunch and lunch break**

19th November 2023 (14:00 – 17:00)
Parallel Track I

Time	Title
Session I: Medical Images and Bionic AI (Chair: Meikang Qiu, Xiaolong Jin)	
14:00-14:15	Multi-scale Style Aggregation Transformer-based Network (MSAT-Net) for Multi-contrast MRI Restoration: Super Resolution and Motion Artifact Reduction
14:15-14:30	Arrhythmia Detection from Electrocardiogram Signal Data based on Wavelet Transform and Deep Reinforcement Learning
14:30-14:45	DCSN: A Flexible and Efficient Lightweight Network for Dense Cell Segmentation
14:45-15:00	MedPipe: End-to-End Joint Search of Data Augmentation and Neural Architecture for 3D Medical Image Classification
15:00-15:15	A Deep Learning Method for Colon Polyp Segmentation with better Universality
15:15-15:25	An Electrocardiogram Augmentation Method for Automatic Detection of ST-Segment Elevation Myocardial Infarction and Culprit Vessel
15:25-15:35	Few-shot Fine-grained Classification of Histological Images
15:35-15:45	Glomerular Classification of Membranous Mephropathy based on Deep Residual Learning with Large Resolution Images
15:45-16:05	**Tea Break**
Session II: Infrastructure of Medicine and Generative AI (II) (Chair: Junzhong Ji)	
16:05-16:20	M2CF-Net: a Multi-resolution and Multi-scale Cross Fusion Network for Segmenting Pathology Lesion of the Focal Lymphocytic Sialadenitis
16:20-16:30	VAC-UNet: Visual Attention Convolution U-Net for 3D Medical Image Segmentation
16:30-16:40	FusNet: A Deep Information Fusion Network for Medical Image Segmentation
16:40-16:50	Automatic Skin Lesion Segmentation Based on Higher-order Spatial Interaction Model
16:50-17:00	A Novel Conditional Medical Image Generation GAN with Latent Space Optimal Transport

19th November 2023 (14:00 – 17:15)
Parallel Track II

Time	Title
Session II: Infrastructure of Medicine and Generative AI (I) (Chair: Songmao Zhang, Shuigeng Zhou)	
14:00-14:15	Context-Aware Clinical Diagnosis Prediction via Hierarchical Ontology Representation
14:15-14:30	Migration: An Efficient Explorer Operator to Guide Swarm Evolution
14:30-14:45	Text Classification Algorithm for Medical Adverse Events based on Deep Learning
14:45-15:00	Type-Representation Enhanced Event Detection via Structure Encoder
15:00-15:10	A model Ops-based Framework for Intelligent Medical Knowledge Extraction
15:10-15:20	Construction of Chinese Electronic Medical Record Entity and Entity Relation Annotation Corpus for Pediatric Bronchopneumonia Disease
15:20-15:30	CQUPT-FL: Cross-Domain Sharing and Security Awareness and Early Warning Platform of Health Science Big Data
15:30-15:40	Ambulance Location Optimization via Fine-grained Ambulance Demand Forecasting
15:40-16:00	**Tea Break**
Session II: Infrastructure of Medicine and Generative AI (II) (Chair: Xipeng Qiu)	
16:00-16:10	Zero-Shot Construction of Chinese Medical Knowledge Graph with ChatGPT
16:10-16:20	A Review on Code Generation with LLMs: Application and Evaluation
16:20-16:30	A Flexible Framework of General Clinical Data Quality Control System
16:30-16:40	A Knowledge-enhanced Medical named Entity Recognition Method that Integrates Pre-trained Language Models
16:40-16:50	Secure and Efficient Federated Statistical Tests for Medical Data based on TEE and Secure Resharing Protocols
16:50-17:00	Thematic Event Extraction based on Event-Related Sentence Detection
17:00-17:30	**Closing & Award Ceremony**