

# Program at a Glance

날짜 및 시간		프로그램
11월 22일 (금)	08:50-09:00	Opening Remarks
	09:00-10:00	Education Session I
	10:00-10:30	Plenary Lecture I
	10:30-11:00	Coffee Break
	11:00-12:00	Drug Delivery & Carrier for Therapeutic Ultrasound
	12:00-12:40	Meet the Authors
	12:40-13:40	Lunch
	13:40-15:00	International Session Sponsored by the FUS Foundation
	15:00-15:40	Poster Session I / Coffee Break
	15:40-17:00	Physics and Biological Responses by Therapeutic Ultrasound I
	17:00-17:30	General Assembly
	18:00-20:00	Gala Dinner
11월 23일 (토)	09:00-10:00	Education Session II
	10:00-10:30	Plenary Lecture II
	10:30-11:10	Poster Session II / Coffee Break
	11:10-12:10	Neurological Applications of Therapeutic Ultrasound
	12:10-13:10	Scientific Session I
	13:10-14:10	Lunch
	14:10-15:10	Scientific Session II
	15:10-15:40	Coffee Break
	15:40-17:00	Physics and Biological Responses by for Therapeutic Ultrasound II
	17:00-17:30	Award & Closing Ceremony

# Detailed Program

2024년 11월 22일(금)

Day 1 Program		
08:50-08:55	<b>Opening Address</b>	이재영 (대한치료초음파학회 회장)
08:55-09:00	<b>Congratulatory Address</b>	조정연 (대한초음파의학회 이사장)
<b>09:00-10:00 Education Session I</b>		
Chairs	정목근 (대전대학교), 홍석호 (서울아산병원)	
09:00-09:20	<b>치료 초음파 연구를 위한 동물실험 기법 개요</b>	박은주 (서울대학교병원)
09:20-09:40	<b>Body Applications of HIFU Therapy: Overview of Clinical Outcomes</b>	김영선 (민트병원)
09:40-10:00	<b>Transcranial Focused Ultrasound: Current Advances and Future Prospects in Neurological Treatment</b>	이은정 (서울대학교병원)
<b>10:00-10:30 Plenary Lecture I</b>		
Chairs	노용래 (경북대학교), 이학종 (분당서울대학교병원)	
10:00-10:30	<b>FUS for Pancreatic Cancer Treatment: A Personal Journey from Lab to Patient since 2007</b>	이재영 (서울대학교병원)
<b>10:30-11:00 Coffee Break</b>		
<b>11:00-12:00 Drug Delivery &amp; Carrier for Therapeutic Ultrasound</b>		
Chairs	박은주 (서울대학교병원), 이동호 (서울대학교병원)	
11:00-11:20	<b>엑소좀막 융합 미세기포를 통한 약물 전달 효과 증대</b>	김현철 (서강대학교)
11:20-11:40	<b>Engineered Extracellular Vesicles for Sonodynamic Cancer Therapy</b>	심민석 (인천대학교)
11:40-12:00	<b>Ultrasound-based Therapeutic Monitoring for Focused Ultrasound Blood-Brain Barrier Opening</b>	배수아 (서강대학교)
<b>12:00-12:40 Meet the Authors</b>		
Chairs	김영선 (민트병원), 김형민 (KIST)	
12:00-12:10	<b>Sonothrombolysis with an Acoustic Net-assisted Boiling Histotripsy: A Proof-of-concept Study</b>	박기주 (경희대학교)
12:10-12:20	<b>Long-lasting Restoration of Memory Function and Hippocampal Synaptic Plasticity by Focused Ultrasound in Alzheimer's Disease</b>	공찬호 (연세대학교)
12:20-12:30	<b>Endogenous Neural Stem Cell Activation after Low-Intensity Focused Ultrasound-Induced Blood-Brain Barrier Modulation</b>	서영희 (연세대학교)
12:30-12:40	<b>시상</b>	
<b>12:40-13:40 Lunch</b>		
<b>13:40-15:00 International Session Sponsored by the FUS Foundation</b>		
Chairs	박기주 (경희대학교), 이은정 (서울대학교병원)	
13:40-14:00	<b>Molecular Determinants Sensing Mechanism of Low-intensity Ultrasound: Tool Development, Scientific Discovery, Clinical Implication, and Pitfalls</b>	Jaw-Lin Wang (National Taiwan University)
14:00-14:20	<b>TRPC6 is an Essential Molecule for Ultrasound-induced Neuromodulation in the Mammalian Brain</b>	Yumi Matsushita (National Institutes for Quantum Science and Technology)
14:20-14:40	<b>Targeted Brain Delivery of Curcumin-loaded Nanoparticles using Focused Ultrasound in a Parkinson's Disease Mouse Model</b>	Shu-Mei Yang (National Taiwan University Hospital)
14:40-15:00	<b>Development of a Sonogenetic Brain Stimulation Technology</b>	Kaede Yoshida (Hokkaido University)
<b>15:00-15:40 Poster Session I / Coffee Break</b>		

15:40-17:00	<b>Physics and Biological Responses by Therapeutic Ultrasound I</b>	
Chairs	장진호 (DGIST), 손건호 (IMGT)	
15:40-16:00	<b>Acoustic Tweezers for Biomedical Applications</b>	
	임해균 (부경대학교)	
16:00-16:20	<b>Ultrasonic Neuromodulation via Astrocytic TRPA1</b>	
	오수진 (KIST)	
16:20-16:40	<b>Molecular Rational Design Strategies for Photo/Sono-dynamic Therapy</b>	
	권태혁 (UNIST)	
16:40-17:00	<b>Ultrasound Devices for Therapeutic Ultrasound</b>	
	이현주 (KAIST)	
17:00-17:30	<b>General Assembly</b>	김형민 (대한치료초음파학회 총무이사)
18:00-20:00	<b>Gala Dinner</b>	

## 2024년 11월 23일(토)

Day 2 Program		
09:00-10:00	<b>Education Session II</b>	
Chairs	서준호 (한국기계연구원), 최동석 (최상산부인과의원)	
09:00-09:20	<b>LLM 및 Generative AI의 원리 및 의료 활용</b>	
	김남국 (서울아산병원)	
09:20-09:40	<b>Practical Guide to ChatGPT and Generative AI for Scholarly Work</b>	
	이정무 (서울대학교병원)	
09:40-10:00	<b>Intelligent Ultrasound Systems for Better Diagnostics and Treatment</b>	
	황재윤 (DGIST)	
10:00-10:30	<b>Plenary Lecture II</b>	
Chairs	이재영 (서울대학교병원), 최민주 (제주대학교)	
10:00-10:30	<b>Non-invasive Histotripsy Cancer Treatment: The Road from Bench to Bedside</b>	
	Zhen Xu (University of Michigan)	
10:30-11:10	<b>Poster Session II / Coffee Break</b>	
11:10-12:10	<b>Neurological Applications of Therapeutic Ultrasound</b>	
Chairs	박진형 (성균관대학교), 장원석 (세브란스병원)	
11:10-11:30	<b>Acoustic Neuromodulation via Molecular Profiling: Elucidating Cell Type-specific Neural Dynamics</b>	
	현정호 (DGIST)	
11:30-11:50	<b>Advancing Non-invasive Brain Stimulation: Long-term Plasticity through Ultrasound</b>	
	박주민 (IBS)	
11:50-12:10	<b>집속초음파 뇌수술의 경험과 발전의 과제</b>	
	전상용 (서울아산병원)	
12:10 - 13:10	<b>Scientific Session I</b>	
Chairs	김기동 (분당서울대학교병원), 배수아 (서강대학교)	
12:10-12:22	<b>Characterization of Acoustic Droplet Vaporization(ADV) and Inertial Cavitation(IC) in Nanodroplets under Diverse Conditions</b>	
	엄태인 (서울대학교)	
12:22-12:34	<b>Investigation into Fractionation of <i>ex vivo</i> Porcine and Bovine Livers by Pressure-modulated Shockwave Histotripsy</b>	
	안세준 (경희대학교)	
12:34-12:46	<b>Role of P<sub>2</sub>X<sub>7</sub> Receptor during Low-intensity Focused Ultrasound-induced Blood-Brain Barrier Modulation</b>	
	박준원 (연세대학교)	
12:46-12:58	<b>Accelerated Cerebrospinal Fluid Drainage Using Low-Intensity Transcranial Focused Ultrasound</b>	
	최태원 (성균관대학교)	
12:58-13:10	<b>Golay-coded Ultrasonic Transmission for Controlled Blood-brain Barrier Opening and Brain Tumor Treatment</b>	
	장서연 (성균관대학교)	
13:10-14:10	<b>Lunch</b>	

14:10-15:10	<b>Scientific Session II</b>	
Chairs	박주영 (가천대학교), 김재호 (한림대학교)	
14:10-14:22	<b>tFUS Stimulation on the Ischemic Stroke Rat Model Contralesional Motor Cortex Modulates Interhemispheric Balance</b>	금정은 (KIST)
14:22-14:34	<b>Focused Ultrasound Alleviates Ventriculomegaly and Behavioral Impairment in a Hydrocephalus Model</b>	서영희 (KIST)
14:34-14:46	<b>Enhanced Delivery of Lazertinib by Focused Ultrasound in a Metastatic Brain Tumor Rat Model with L858R/T890M Mutation</b>	공찬호 (연세대학교)
14:46-14:58	<b>Performance and Safety Evaluation of Ultrasound Device for Blood-Brain Barrier Opening in Non-Human Primates</b>	박찬욱 (뉴머스)
14:58-15:10	<b>Long-term Clinical Outcome of a Novel Bilateral Capsulotomy with Focused Ultrasound in Refractory Obsessive-compulsive Disorder Treatment</b>	장경원 (삼성서울병원)
15:10-15:40	<b>Coffee Break</b>	
15:40-17:00	<b>Physics and Biological Responses by for Therapeutic Ultrasound II</b>	
Chairs	이병철 (KIST), 조성용 (서울대학교병원)	
15:40-16:00	<b>Ultrasound-Assisted Photothermal Therapy (ULTRA-PTT) Based on Ultrasound-Induced Optical Clearing</b>	장진호 (DGIST)
16:00-16:20	<b>Ultrasonic Repression of TRPA1-dependent Astrocyte Reactivity Confers Neuroprotection in Models of Lewy Body Dementia</b>	박진형 (성균관대학교)
16:20-16:40	<b>Ultrasound-triggered Three Dimensional Hyaluronic Acid Hydrogel Promotes in Vitro and in Vivo Reprogramming into Induced Pluripotent Stem Cells</b>	이수홍 (동국대학교)
16:40-17:00	<b>Cavitation-Enhanced Sonothrombolysis Techniques for Venous Thromboembolism</b>	김진욱 (경북대학교)
17:00-17:30	<b>Award &amp; Closing Ceremony</b>	김형민 (대한치료초음파학회 총무이사)