

Molecular Imaging New Drug development center

Prof. Ho-Chun Song, MD, PhD



Contact

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Research Area

- Radiopharmaceutical Drug Development for Neurodegenerative Diseases
- Radiation safety and medical applications of nuclear imaging
- AI-driven analysis of multimodal medical data

Projects

	Title	Funding
2013.11 ~ 2018.04	Medical Radiation Safety Research Center Project	Nuclear Safety and Security Commission
2017.03 ~ 2020.02	Medical Data Analysis Technology Development using Multi-type Complex Data Fusion	Ministry of Science and ICT
2019.03 ~ 2019.12	Research on Understanding Radiation in Daily Life using STS	Korea Institute of Radiological & Medical Sciences
2020.06 ~ 2023.05	Regional University Outstanding Scientist Support Program: AI-based Drug Development for Tau Imaging in Alzheimer's Disease Diagnosis	National Research Foundation
2022.04 ~ 2023.03	Cohort Study on Dementia and Cognitive Impairment in the Elderly	Korea Disease Control and Prevention Agency
2023.06 ~ 2024.12	Dementia Prevention and Management Research through Community-based Tracking of High-risk Elderly Groups	Korea Disease Control and Prevention Agency
2018.02 ~ 2024.12	Specialized Project for AI-based Medical Technology Development	Chonnam National University Hospital

Molecular Imaging New Drug development center



Prof. Jahae Kim, MD, PhD, FANMB



Contact

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Research Area

- Medical AI, brain imaging, nuclear medicine, PET/CT, dementia PET imaging
- Basic research for brain disease using animal models

Projects

	Title	Funding
2017.04.~2021.03.	Project for enhancement of basic research capacity for MD	National Research Foundation
2017.06.~2020.05.	Project of individual basic research	National Research Foundation
2020.09.~2021.02.	Project of data construction for artificial intelligence development	National Research Foundation
2020.09.~ing	Project of mid-career researcher	National Research Foundation
2020.09.~ing	BK21 (Brain Korea) 4 project: in the Department of AI Convergence of CNU graduate school	National Research Foundation
2023.07.~ing	AI convergence training center: in the Department of AI Convergence of CNU graduate school	National Research Foundation
2024.07.~ing	ICT research center: in the Department of AI Convergence of CNU graduate school	National Research Foundation

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Prof. Sang-Geon Cho, MD, PhD, FANMB



Contact

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Research Area

- Quantitative dynamic/static PET and SPECT image analyses in animal disease models
- Dynamic Radionuclide cardiovascular imaging with compartment modeling

Projects

	Title	Funding
2018.12 –2020.11	Evaluation of non-infarct-related arteries using C-11 acetate PET in acute myocardial infarction with multivessel disease	Korean Society of Cardiology
2020.06 – 2023.02	Optimization of angiotensin receptor-neprilysin inhibitor (ARNI) therapy in heart failure by myocardial sympathetic nerve imaging: preclinical and clinical validations	National Research Foundation, Republic of Korea
2022.01 – 2022.12	Development of imaging analysis technology for follow-up and prognostic stratification of renal trauma	Chonnam National University Hospital
2023.09– 2024.08	Molecular imaging of fibroblast activation and AI analyses in cardiovascular diseases	National Research Foundation, Republic of Korea
2024.04 –2025.03	Multimodal molecular imaging and analyses of peripheral artery disease: preclinical and clinical application	American Heart Association

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Prof. Ki-Seong Park, MD, MS, FANMB



Contact

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Research Area

- Development and validation of AI-driven medical technologies in healthcare
- Integration of AI with nuclear medicine for advanced medicine
- AI-based drug discovery and design for novel therapeutics

Projects

	Title	Funding
2025.01 ~ing	Development of Retrieval-Augmented Generation (RAG) Technology Based on Multimodal Data Input	Ministry of Science and ICT
2020.05 ~ 2024.12	Specialized Project for AI-based Medical Technology Development	Chonnam National University Hospital
2024.03 ~ing	Chonnam National University Hospital Academic Research Project (Multi-Year Collaborative)	Chonnam National University Hospital

MIND - Equipment



MIND Center



Hot Lab

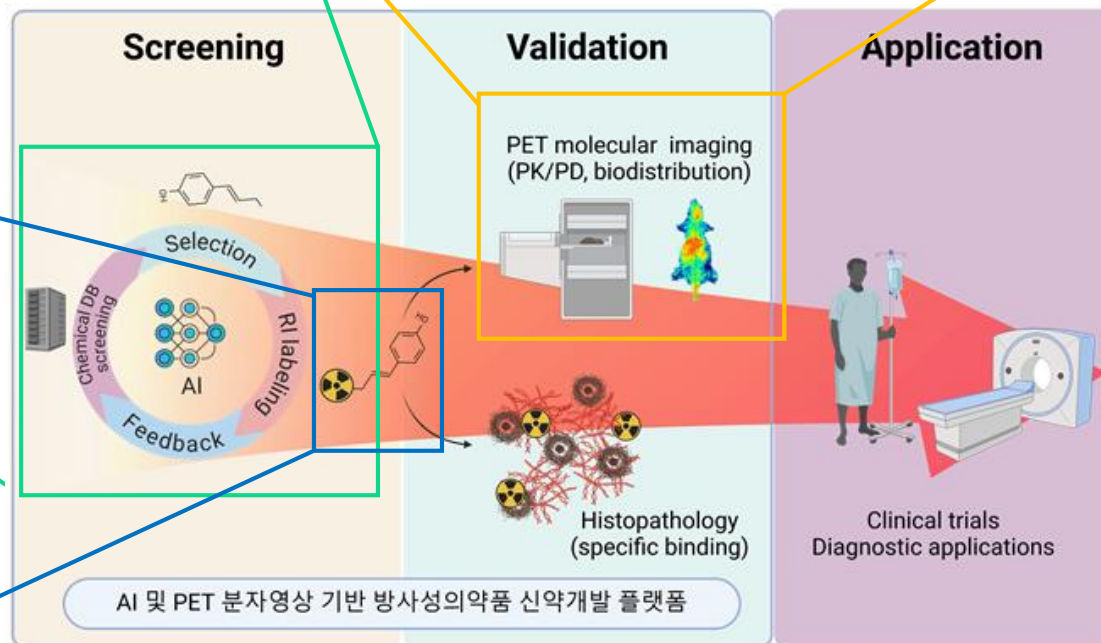
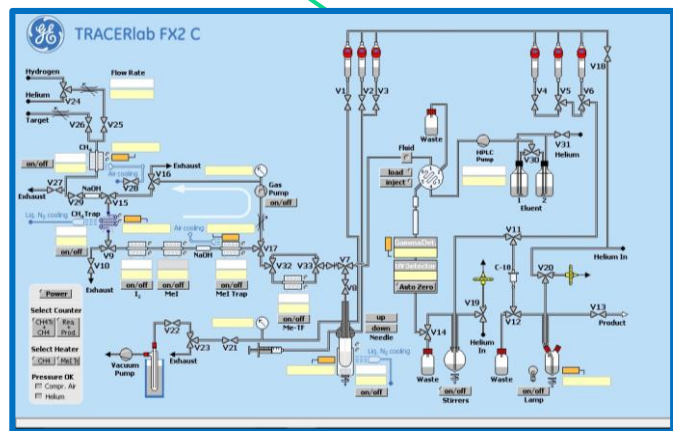
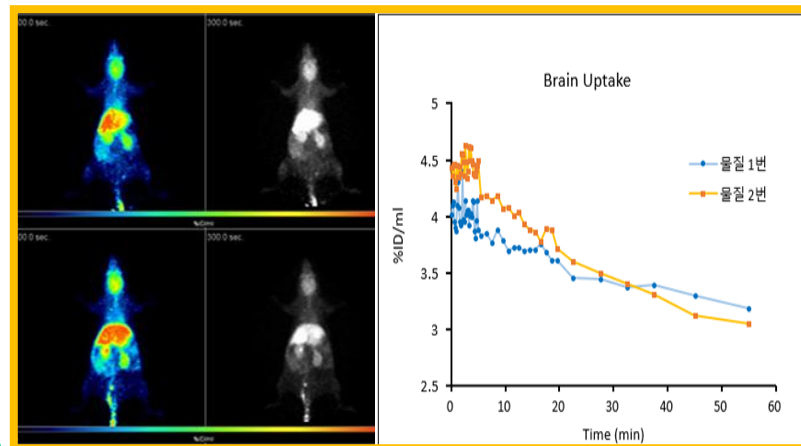
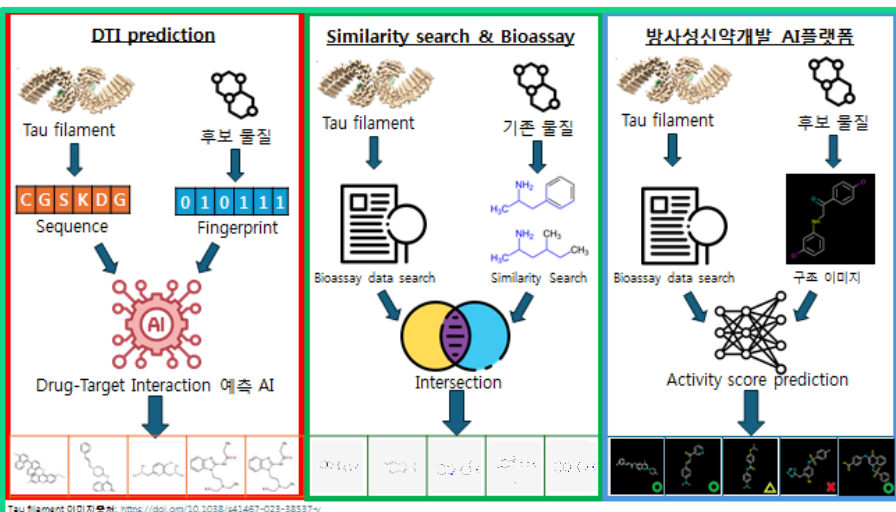


Cyclotron



Animal PET/CT

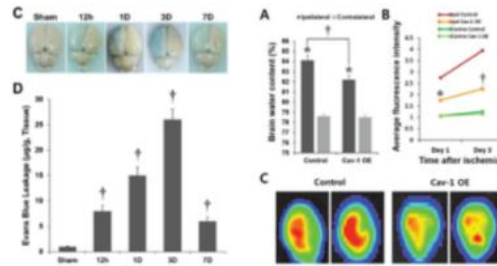
MIND – Research Area



MIND – Research Area

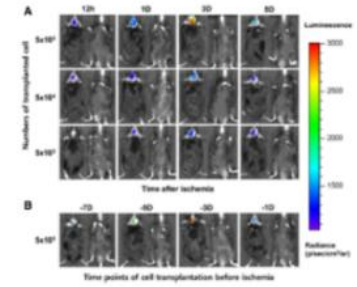
초창기:
형광영상을
활용한 연구

Oncotarget 2016

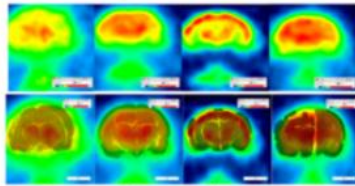


초창기:
생체발광영상을
활용한 연구

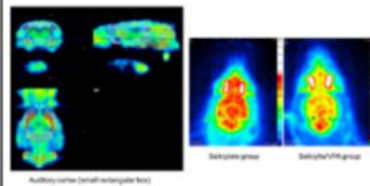
Stroke 2016



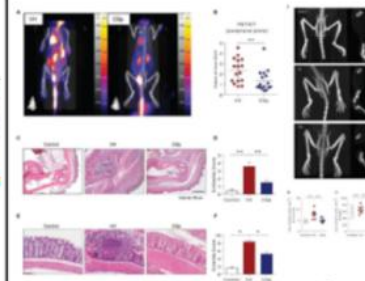
중반기:
PET/CT를
활용한 연구



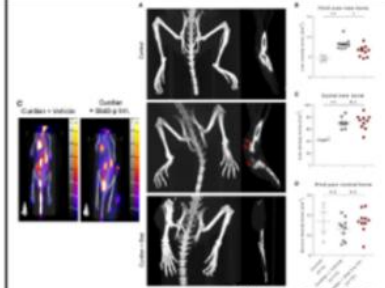
Brain Sci 2021



Int J Mol Sci 2021

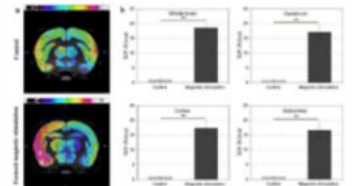


Front Rheumatol 2021

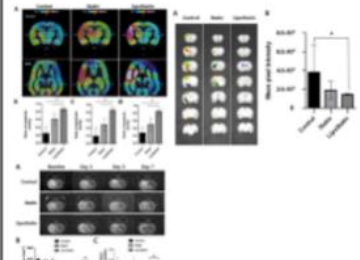


Rheumatol 2021

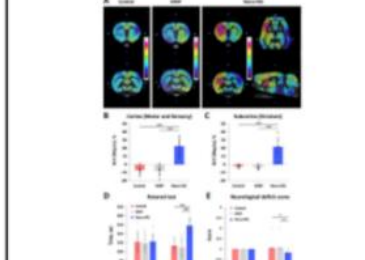
최근:
PET/형광/MR를
다양하게 활용하여
치료효과를
평가한 연구들



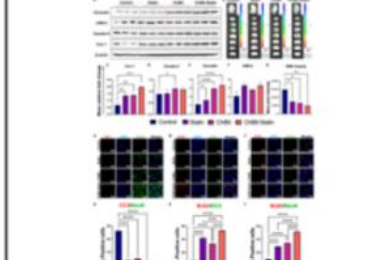
Sci Rep 2023



Transl Stroke Res 2023



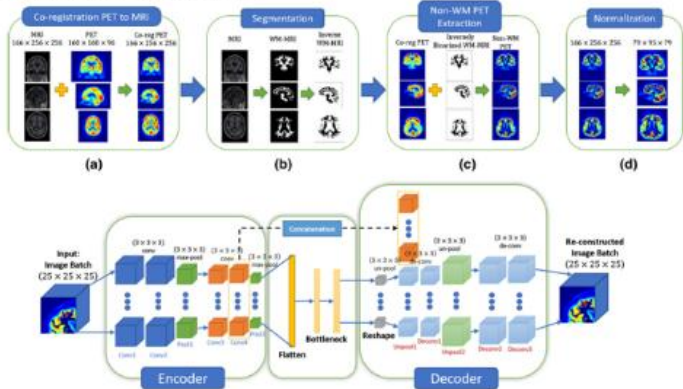
Brain Stimulation 2024



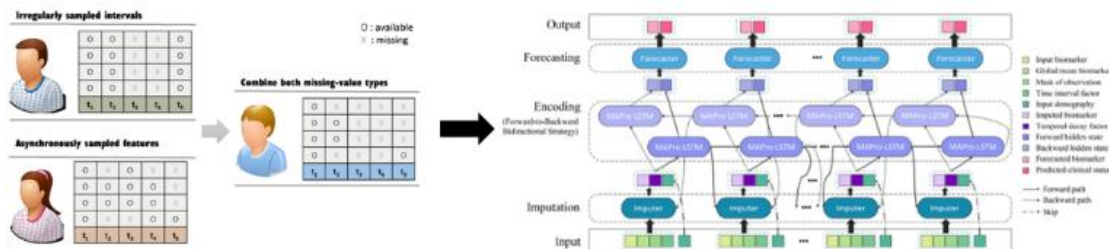
Biomaterials Res 2024

MIND – Research Area

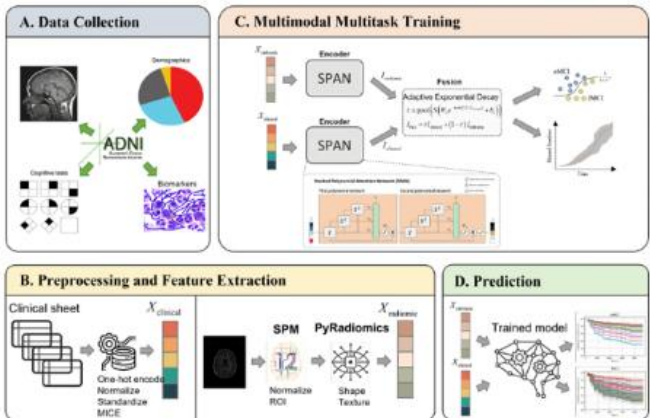
Soft computing 2018



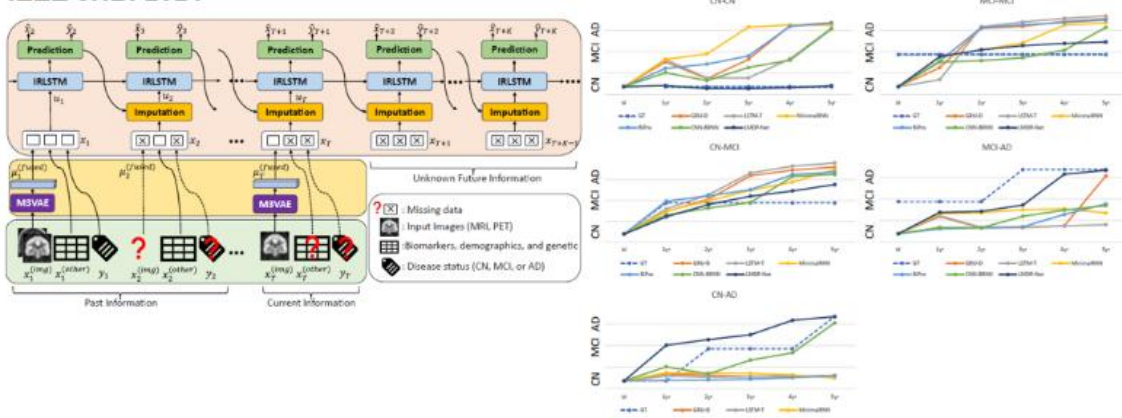
Neural Networks 2022



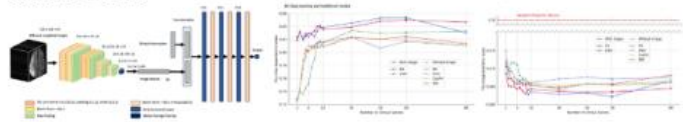
Sci Rep 2023



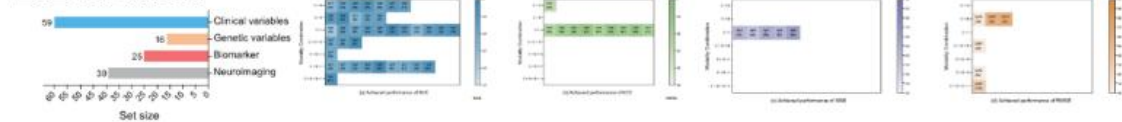
IEEE JHBI 2024



JNNP 2023



IEEE JHBI 2024



MIND – Symposium

2019 MIND

Molecular Imaging and New drug Development center

분자영상신약개발센터 개소식 및 기념 심포지엄

12.
23. 월

전남대학교
의과대학
덕재홀

08:40	09:00	등록	사회: 김순실(전남대학교병원)
09:00	09:20	분자영상신약개발센터 경과보고 및 GMP-certified cyclotron 소개	송호천(전남대학교병원)
09:20	09:30	분자영상신약개발센터 개소식 축하	이승용(전남대학교병원장)
09:30	10:00	분자영상신약개발센터 커킹식 및 투어	
10:00	10:20	Coffee Break	사회: 김지혜(전남대학교병원)
10:20	10:25	개회사	송호천(전남대학교병원)
10:25	10:30	심포지엄 축하	김병채(전남대학교병원 의생명연구소장)
Session 1. Radiopharmaceuticals for Molecular Imaging			
10:30	11:00	Molecular imaging in cyclotron facility	이재성(서울대학교병원)
11:00	11:30	Drug developments for molecular imaging	오승준(서울아산병원)
11:30	12:00	패널토의	김경민(전남대학교병원), 김동원(화순전남대학교병원), 박정환(한국원자력연구원), 강세영(화순전남대학교병원)
12:00	13:00	Lunch	사회: 조상건(전남대학교병원)
Session 2. Preclinical Research in Molecular Imaging			
13:00	13:30	New medical RI and its labeling techniques for molecular imaging	최정민(한국원자력연구원)
13:30	14:00	Cardiovascular research in porcine model	김민기(전남대학교병원)
14:00	14:15	패널토의	김민철(전남대학교병원), 김원우(전남대학교병원), 이신영(전남대학교병원), 유수용(화순전남대학교병원)
14:15	14:30	Coffee Break and Photo	
Session 3. Basic and Clinical Research in Molecular Imaging			
14:30	15:00	Molecular thyroid imaging	안병철(경북대학교병원)
15:00	15:30	Molecular cardiovascular imaging	공은정(영남대학교병원)
15:30	16:00	Molecular brain imaging	오민영(서울아산병원)
16:00	16:15	패널토의	유영재(화순전남대학교병원), 정인식(전남대학교병원), 최성민(전남대학교병원), 정아리(조선대학교병원)
16:15	16:30	Coffee Break	
Session 4. Experience of PET/CT in Clinical Research			
16:30	16:45	Experience of PET/CT in oncology	권성영(화순전남대학교병원)
16:45	17:00	Experience of PET/CT in neurology	김지혜(전남대학교병원)
17:00	17:15	Experience of PET/CT in cardiology	조상건(전남대학교병원)
17:15	17:30	패널토의	조은(전남대학교병원), 김원우(전남대학교병원), 황의정(화순전남대학교병원), 김호신(전남대학교병원)
17:30	18:00	폐회사	송호천(전남대학교병원)
18:00		Dinner	

2021 MIND

분자영상 신약개발 센터

Molecular
Imaging
New Drug
Development Center

심포지엄

S Y M P O S I U M

New Horizon of
nuclear imaging and
theranostics

PROGRAM

08:30-08:50	등록	사회: 김지혜(전남대학교병원)
08:50-08:55	개회사	송호천(전남대학교병원)
08:55-09:00	심포지엄 축하	안영근(전남대학교병원장)
	Plenary Lecture	좌장: 송호천(전남대학교병원)
09:00-09:40	Nuclear imaging and theranostics 성공을 위한 노력	오승준(서울아산병원)
09:40-10:00	온라인 질의 및 패널토의	김정민(전남대학교병원), 김병채(전남대학교병원)
	Session 1 Clinical Implication & Future perspective of Neurology	좌장: 김병채(전남대학교병원)
10:00-10:20	F-18 Florbetaben	강도영(동아대학교병원)
10:20-10:40	F-18 FP-CIT	오민영(서울아산병원)
10:40-11:00	온라인 질의 및 패널토의	최성민(전남대학교병원), 송민근(전남대학교병원)
	Session 2 Clinical Implication & Future perspective of Cardiology	좌장: 정병호(전남대학교병원)
11:00-11:20	N-13 Ammonia	이주영(삼성서울병원)
11:20-11:40	C-11 Acetate	조상건(전남대학교병원)
11:40-12:00	F-18 NaF	방진철(서울대학교병원)
12:00-12:20	온라인 질의 및 패널토의	심두선(전남대학교병원), 이승현(전남대학교병원)
12:20-13:30	Photo and Lunch	사회: 조상건(전남대학교병원)
	Session 3 Clinical Implication & Future perspective of Prostate cancer	좌장: 김택민(전남대학교병원)
13:30-13:50	Ga-68 PSMA	윤미진(세브란스병원)
13:50-14:10	Lu-177 PSMA	강건욱(서울대학교병원)
14:10-14:30	온라인 질의 및 패널토의	유성현(전남대학교병원), 김지혜(전남대학교병원)
	Session 4 Clinical Implication & Future perspective of Neuroendocrine tumor	좌장: 김현수(전남대학교병원)
14:30-14:50	Ga-68 DOTATATE	변병환(한국원자력의학원)
14:50-15:10	Lu-177 DOTATATE	오도연(서울대학교병원)
15:10-15:30	온라인 질의 및 패널토의	김호준(전남대학교병원), 박선영(전남대학교병원)
15:30-16:00	Coffee Break	
	Session 5 Clinical Implication & Future perspective of HCC	좌장: 박정환(전남대학교병원)
16:00-16:20	Updates in PET/CT for HCC	최준영(삼성서울병원)
16:20-16:40	Y-90 TARE	송효성(연세대학교병원)
16:40-17:00	온라인 질의 및 패널토의	윤재현(전남대학교병원), 김희석(전남대학교병원)
	Session 6 Clinical Implication & Future perspective of parathyroid disease	좌장: 정동진(전남대학교병원)
17:00-17:20	F-18 Fluorocholine	조영석(삼성서울병원)
17:20-17:40	C-11 methionine	박기성(전남대학교병원)
17:40-18:00	온라인 질의 및 패널토의	김빛나(전남대학교병원), 조동혁(전남대학교병원)
18:00-18:10	폐회사	송호천(전남대학교병원)

일시
2021년 11월 29일 (월)

장소
전남대학교병원
5동 1층 대강당
On-Line (Zoom meeting)

MIND – Symposium

2022 분자영상 신약개발 센터 Molecular Imaging New Drug Development Center 심포지엄 SYMPOSIUM

일시 2022. 11. 14 (일)

장소 · 전남대학교 의학박물관 문석홀 · 온라인

주관 : 전남대학교병원 핵의학과
후원 : 전남대학교병원 의생명연구원

전남대학교병원 의생명연구원
CHONNAM MEDICAL UNIVERSITY HOSPITAL BIOMEDICAL RESEARCH INSTITUTE

Drug Discovery and Development

8:30-8:45 등록	사회: 김지혜 전남대학교병원
8:45-8:55 개회사	송호천 전남대학교병원
8:55-9:00 심포지엄 축하	안영근 전남대학교병원장

Session1 Synthetic Biology in Drug Discovery

9:00-9:30 What is Synthetic Biology?	최석용 전남대학교
9:30-10:00 Synthetic Biology for the Development of Living Medicines	이태희 한국생명공학연구원
10:00-10:20 온라인 질의 및 패널토의	김근호 충남대병원 한원희 전북대병원 조상건 전남대병원

Session2 Current Status and Prospects of AI-based Drug Discovery

10:30-10:50 AI 신약개발 최신 동향	김우연 KAIST
10:50-11:10 인공지능 활용 신약개발: 신규표적 및 신규물질 발굴 사례 중심으로	송상욱 스태디엄
11:10-11:30 전사체학 데이터 기반의 AI 신약개발의 실제 사례	김지훈 은코크로스
11:30-11:50 온라인 질의 및 패널토의	김철환 송북대병원 서영덕 호남대병원 박기성 전남대병원
11:50-13:30 Photo and Lunch	사회: 조상건 전남대학교병원

Session3 Applications of Click Chemistry in Drug Discovery

13:30-14:00 Click Chemistry for Drug Development	이선우 전남대학교
14:00-14:30 Click Bioorthogonal F-18 Labeling Chemistry for PET Molecular Imaging	김동욱 연희대학교
14:30-14:50 온라인 질의 및 패널토의	김강빈 전남대병원 표이영 경성대학교 김지혜 전남대병원
14:50-15:00 Coffee and Break	

Session4 The Role of Molecular Imaging in Drug Discovery

15:00-15:30 분자영상을 이용한 신약개발 가속화	박현수 서울대학교
15:30-16:00 원자력학원에서의 방사성인약품 신약개발 경험	임일환 원자력연구원
16:00-16:20 온라인 질의 및 패널토의	김재현 단국대병원 강세영 호산전남대병원 유수홍 호산전남대병원
16:20-16:30 폐회사	김지혜 전남대학교병원

2023 MIND

2023 Molecular Imaging New drug Development center Symposium

Theme The Present and Future of Nuclear Medicine Therapy

2023 분자영상신약개발센터심포지엄

핵의학 치료의 현재와 미래

🕒 2023. 11. 13(MON) 08:30~17:30

📺 On-Line(Zoom Only)



ZOOM LINK
ID 880 469 5502
PW 123456

8:30-8:45 Registration	Jahae Kim	Chonnam National University Hospital
8:45-8:55 Opening Ceremony	Ho-Chun Song	Chonnam National University Hospital
8:55-9:00 Congratulatory Message	Youngkeun Ahn	President & CEO, Chonnam National University Hospital
Plenary lecture		
9:00-10:00 Immuno-PET in Ab Drug Discovery	Kyung-Han Lee	Samsung Medical Center
10:00-10:20 On-Line Question & Panel discussion	Jahae Kim Sae-Ryung Kang	Chonnam National University Hospital Chonnam National University Hwasun Hospital
10:20-10:30 Break		
Session 1: Novel imaging tracer		
10:30-10:50 Fibroblast Activation Protein-α (FAP): a New Theranostics Target	Sunwoo Lee	Chonnam National University
10:50-11:10 In vivo imaging of invasive aspergillosis with 18F-fluorodeoxyisorbital positron emission tomography	Yun-Sang Lee	Seoul National University Hospital
11:10-11:30 Novel Imaging Tracer:[18F]FSPG	Dong-Yeon Kim	Gyeongsang National University
11:30-11:50 On-Line Question & Panel discussion	Seung Jun Oh	Ulsan National University Hospital
11:50-14:00 Lunch	Ayoung Pyo Kangbin Kim Ji Yong Park	Gyeongsang National University Chonnam National University Hospital Seoul National University Dental Research Institute
Special Talk : Alpha therapy		
14:00-14:30 Alpha-particle based therapies in prostate cancer and NETs	Sang-Geon Cho	Chonnam National University Hospital
14:30-15:00 Alpha-particle approved treatments and novel therapies	Mike Sathekge	University of Pretoria & Steve Biko Academic Hospital
15:00-15:30 Production of alpha radioisotope and MEDICIS	Andrew Scott	Olivia Newton John Cancer Research Institute, Melbourne
15:30-15:50 On-Line Question & Panel discussion	Thierry Stora	CERN-MEDICIS, Switzerland
15:50-16:00 Break	Seong Young Kwon Su Woong Yoo Kyungdon Choi	Chonnam National University Hwasun Hospital Chonnam National University Hwasun Hospital CM DATA
Session 2: TARE		
16:00-16:20 The Role of TARE in Hepatocellular Carcinoma Treatment: Current Insights and Future Directions	Hwan Jeong Jeong	Jeonbuk National University Hospital
16:20-16:40 Role of TARE in the management of hepatocellular carcinoma in a tertiary hospital in Korea	Sun gyu Lee	Incheon ST. Mary's Hospital
16:40-17:00 Y-90 TARE: Where We Are	Dongho Hyun	Samsung Medical Center
- A Nuclear Medicine Physician's Perspective on Updated Guidelines	Kisoo Park	Korea University Anam Hospital
17:00-17:20 On-Line Question & Panel discussion	Yang seek Koh Chan Park Sang-Geon Cho	Chonnam National University Hwasun Hospital Chonnam National University Hospital Chonnam National University Hospital
17:20-17:30 Closing Address	Ho-Chun Song	Chonnam National University Hospital

Chonnam National University Hospital Nuclear Medicine
Chonnam National University Hospital Biomedical Research Institute

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