News Release 2025/2/19

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報道関係各位

国内外のトップ研究者による学術的知見の交流×共同研究の発展へ

京都薬科大学 2024 年度国際シンポジウムを開催

◇日　　時　：2025 年 3 月 11 日（火）10 時～17 時
3 月 12 日（水）10 時～15 時
◇会　　場　：京都薬科大学　愛学館 2 階・A21 講義室

2025 年 3 月 11 日(火)･12 日(水)に京都薬科大学（京都市山科区、学長：赤路健一）において 2024 年度国際シンポジウム(KPU InternationalSymposium)を「次世代のがんプロフェッショナル養成プラン」（文部科学省）との共催で開催します。

本シンポジウムは本学独自の研究推進事業「シナジー共同研究」や「国際共同研究」で 2023 年度に採択された事業、

- 神経変性疾患の早期診断・疾患修飾・機能補填を包括するニューロセラノスティクスの開発
- 膜タンパク質と脂質の協奏機構解明に向けた分子化学的研究と新規膜受容体機能調製因子の創製
- 脂肪由来幹細胞と免疫賦活剤を組み合わせた次世代治療法の開発

に関連して学内外の研究者と共同で行った研究成果について発表し、意見交換を行います。さらに本年度のプログラムは、上記研究分野における国内外の第一線で活躍する 11 名の卓越した研究者による先端的な講演を構成しています。京都薬科大学の高度な研究基盤をもとに、革新的な学術的知見の交流と、次世代の共同研究への戦略的な展望を見据えた、極めて意義深い学術イベントとして企画しております。

また、本シンポジウムは本学の「次世代がんプロフェッショナル養成プラン」の共催で実施します。「次世代がんプロフェッショナル養成プラン」はがん医療の新たなニーズや急速ながん医療の高度化に対応できる医療人の育成を目指した取り組みを行っており、今後もこのような取り組みを通じて学際的な知識と技術の融合を推進、高度な専門性を持つ次世代の医療人育成を目指していきます。

※本件は、当日のご取材も承っております。ご希望の際は京都薬科大学までご連絡ください。

2024 年度国際シンポジウム実施概要

Date: March 11 (Tues) and 12 (Wed), 2025
Venue: A21 Lecture Hall, Aigaku-kan Building, Kyoto Pharmaceutical University
program：
KPU International Symposium
Joint with "Plan for Fostering Next-Generation Cancer Specialists" and "KPU Synergetic Research Project Seminar"
March 11(Tue)-12(Wed)

Day1 (March 11)

Towards understanding and modulating biological phenomenon on the membrane

The disruption of receptor tyrosine kinase (RTK)-mediated signaling is closely associated with severe diseases such as cancer. These receptors are known to function by interacting with a variety of lipid molecules within biological membranes. This session will present the latest research uncovering the chemistry of RTKs and their "concert" with lipid molecules. Insights from this session may lead to novel drug discovery strategies targeting RTKs.

10:00-10:30 Takeshi Sato (Kyoto Pharmaceutical University)
Suggestion from the computational chemistry for EGFR and lipids
10:30-11:00 Hiroko Asahina (Kyoto Pharmaceutical University)
Strategy for structural analysis of membrane protein with semi-synthesis
11:00-11:30 Francisco Barrera (University of Tennessee, Knoxville)
Lipid control of receptor tyrosine kinase assembly and function
11:30-12:00 Kazuya Kabayama (Osaka University)
Regulation of dynamics of plasma membrane-associated molecules by glycosylation

Synthesis and application of molecular probe for membrane-related biological system

Dynamic molecular interactions such as lipid-lipid, lipid-protein, and protein-protein interaction in the cell membrane play crucial roles for a variety of fundamental biological processes. Therefore, these interactions have attracted much attention as potential targets for drug discovery. This session will provide synthetic study of artificial phospholipid for investigating lipid-protein interaction, and chemical biological approaches for immune response with the synthetic molecular probes. Furthermore, drug delivery system toward cancer cells based on carbohydrate-protein interactions will also be presented.

13:30-14:00 Takumi Furuta (Kyoto Pharmaceutical University)
Synthetic study of catalytically active head group functionalized phospholipid
14:00-14:30 Yukari Fujimoto (Keio University)
Immunomodulatory functions of cell membrane complex lipids: synthesis and selective activation
14:30-15:00 Xuefei Huang (Michigan State University, Department of Chemistry)
New hyaluronan like polysaccharides with enhanced CD44 affinity for molecular imaging and targeted drug delivery

Topics of translational research in diagnosis and therapy of various diseases using radioligands: From bench to bedside

Combination of diagnosis and therapy using radiopharmaceuticals (radiolabeled ligands): radiotheranostics is attracting attention as a very useful approach for selecting the optimal treatment at the individual patient level (personalized medicine, precision medicine). In this session, we will provide cutting-edge research topics on the status of target molecule discovery, ligand development, and clinical deployment to realize radiotheranostics. We hope that our lecture will be an opportunity for the audience to learn more about radiotheranostics and that it will become a basis for accelerating future transdisciplinary research.

15:30-16:00 Hidekazu Kawashima (Kyoto Pharmaceutical University)
Radiotheranostics of highly malignant tumors: Our approach targeting cancer-associated fibroblasts (CAFs)
16:00-16:30 Koki Hasegawa (Fukushima Medical University)
Innovative nuclear medicine techniques and radiopharmaceuticals: Bridging laboratory development and clinical requirements

16:30-17:00 Michael Decker (University of Würzburg)

Monitoring cardiac diseases by 18F-labebled GPCR ligands: Development of PET-radiotracers based on sartans and CXCR2-ligands

Day 2 (March 12)

Cross-disciplinary research aimed at developing Neurotheranostics for the diagnosis and treatment of neurodegenerative diseases

As the global population ages, there is an urgent need to establish comprehensive measures for the early diagnosis and treatment of neurodegenerative diseases, such as Alzheimer's and Parkinson's diseases, along with their management. The concept of neurotheranostics is evolving; it is no longer just a tool for simultaneous diagnosis and treatment but is being redefined as a technological development that spans from basic research to actual clinical practice in the field of neurodegenerative diseases. This symposium will bring together researchers from various fields, including genetic engineering, pharmacology, and medicine, to explore neurotheranostics. They will introduce and discuss approaches related to diagnosis, treatment, and regenerative medicine. It is anticipated that this collaborative effort across multiple academic disciplines will lead to synergistic research advancements in the development of neurotheranostics.

10:00-10:20 Kazuyuki Takata (Kyoto Pharmaceutical University)

Application of Neurotheranostics in Basic Research of Alzheimer's Disease

10:20-10:40 Masatoshi Inden(Gifu Pharmaceutical University)

Developing and Analyzing Cell Models for Protein Aggregation in Neurodegenerative Diseases.

10:40-11:20 Knut Woltjen (CiRA, Kyoto University)

Precision Genome Editing in Human Induced Pluripotent Stem Cells

11:20-11:00 Wado Akamatsu (Juntendo University)

iPS Cell-Based Disease Modeling and Drug Discovery for Neurological Diseases.

Advancement of cardiac disease therapy and application to new therapies using adipose-derived stem cells

Adipose-derived stem cells (ASCs) have emerged as a promising tool in regenerative medicine, particularly in the context of cardiac disease therapy. This session will elucidate the mechanisms by which ASC-derived bioactive factors modulate cardiac function and facilitate myocardial repair, highlighting recent advances in cell-based therapeutic strategies. We will present findings from our collaborative research with National Taiwan University and introduce results from international clinical studies. By advancing international research collaborations, we aim to accelerate the development of innovative and clinically translatable strategies for cardiac disease treatment.

13:30-14:00 Shinji Kobuchi (Kyoto Pharmaceutical University)

Therapeutic potential of human adipose-derived stem cell-conditioned medium in cardiac disease

14:00-14:30 Wan-Tseng Hsu (National Taiwan University)

Exploring mitochondrial protective strategies in the context of heart failure

14:30-15:00 Shin-Yi Lin (National Taiwan University)

Clinical utilization of direct oral anticoagulant concentration monitoring

本件に関するお問い合わせ先
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