Symposia synopsis

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Plenary Lecture Ⅰ

[KPBMA 80th Anniversary]

Revolutionizing Cancer Treatment with ADCs: A Deep Dive into the Early Clinical Development of T-DXd

Oct. 22nd (Wed), 12:50-13:40, LEWEST Hall A

Antibody-Drug Conjugates(ADCs) are currently the most promising delivery modality in development. They combine potent cytotoxic drugs and deliver them selectively to cancer cells. This prevents damage to normal cells and maximizes efficacy.

The global ADC market is projected to grow from approximately $9.7 billion in 2023 to $19.8 billion in 2028, with 15 ADC treatments already approved for various conditions, including breast cancer, bladder cancer, and hematological malignancies. Domestic pharmaceutical and biotech companies are also actively participating in this market through various means, including technology transfer, joint research, and CDMO partnerships.

In particular, with ongoing technological advancements, such as improved linker stability, the introduction of new cytotoxic drugs, and the conjugation of dual- and multi-target antibodies, ADCs have the potential to expand beyond cancer to encompass diverse indications, including rare diseases and autoimmune diseases. Furthermore, the integration of AI and biomarker-based patient screening technologies is expected to further accelerate the development of personalized ADC therapeutics.

This session will examine how ADCs are shifting the paradigm of anticancer drug development through the early clinical trials of Daiichi Sankyo's Enhertu(T-DXd), considered one of the most innovative recent achievements in the global anticancer field. This will provide important implications for the industry's future innovative therapeutic development strategies.

Plenary Lecture Ⅱ

Integrative Science Advances Pharmaceutical Integrity

Oct. 23rd (Thu), 16:10-16:50, LEWEST Hall A

To thrive for the highest possible integrity distinguishes pharmaceuticals from many other quality products that advance modern daily life, and this is reflected in multi-level regulatory pressure. Two parallel approaches seeks to address key expectations associated with this global consensus: (1) maximize reproducibility and traceability of the entire production workflow; and (2) employ rigorous, multi-level biological and chemical performance analysis throughout the process. The latter particularly builds on our ability to integrate STEM knowledge that is specific for the foundational disciplines of pharmacy: pharmacognosy, medicinal chemistry, pharmaceutical analysis, pharmacology, and toxicology. Being pillars of pharmaceutical integrity, their orchestrated use is essential for downstream clinical utility and fitness of the products for healthcare applications.

As collaborative approaches to science evolve and pharmacognosy projects often integrate 2-3 disciplines, recent advances in natural product (NP) research inspire the greater pharmacy community. The pharmaceutical term “purity” provides multiple entry points for discussion: purity has multiple and partially unclear facets; purity is of obvious importance when dealing with metabolomic NPs; and purity mounts into the recently established term Residual Complexity (RC), which can be understood as “deviation from total integrity and/or understanding”.

This presentation will discuss how foundational biological, chemical, physical, and mathematical principles affect the integrity of integrative pharmaceutical science. This includes examination of both prior and recently advanced foundational knowledge for a range of questions along the biology to mathematics continuum:

- What processes drive the discovery of new hits and the development of leads?
- Can NP hits be “too good to be true”?
- What is a “compound”, and how many structures does it have?
- What physiochemistry stands behind NP and API purification?
- How do overlapping chromatographic peaks differ from spectroscopic multiplets?
- Is methodological innovation the first objective or a last resort?

Discussion of potential answers will involve recent experimental evidence from our own work in the discovery of antibiotics, dental biomodifiers, bioactive principles from medicinal and dietary plants, and methodology for pharmaceutical integrity analysis. The overarching goal is to demonstrate how the application of fundamental knowledge is a prerequisite for integrative research and the further enhancement of the integrity of the pharmaceutical value chain.

2025 Ohdang Award Lecture

Dependence receptors: a new paradigm in cell signaling and cancer therapy

Oct. 23rd (Thu), 13:20-14:00, LEWEST Hall A

Professor Patrick Mehlen is a world-renowned scholar who first identified the groundbreaking concept of Dependence Receptors in cell biology and has pioneered research applying this discovery to cancer therapeutics. His research has elucidated the dual function of dependence receptors, which induce cell death in the absence of their ligands, and revealed how this function is suppressed in cancer cells, thereby promoting tumor progression and metastasis.

Notably, Professor Mehlen has developed an anti-Netrin-1 antibody (NP137) that demonstrates anticancer activity by leveraging dependence receptor functionality. This antibody has shown efficacy as a monotherapy in various preclinical models including lung, breast, and endometrial cancers, and is currently demonstrating excellent safety profiles and antitumor effects in Phase 1a/2 clinical trials.

The presentation will comprehensively cover the research journey from the fundamental theory of dependence receptors to clinical-stage drug development, vividly illustrating how basic science can translate into clinical value.

2025 PSK Award Lecture

PSK Pharmaceutical Achievement Award: Handok Pharmaceutical Achievement Award

Oct. 24th (Fri), 09:10-09:50, LEWEST Hall A

Yoon Gwang Yeol Pharmaceutical Achievement Award

Nokam Pharmaceutical Achievement Award

Oct. 22nd (Wed), 15:50-16:40, Room 404

Educational Program

AI Era: How Should We Prepare for the Future?

Oct. 22nd (wed), 10:30-11:30, LEWEST Hall A

Artificial intelligence is rapidly transforming the landscape of university education, research, and industry. From accelerating scientific discovery to enabling personalized learning and driving innovation in the marketplace, AI offers powerful tools that are reshaping how knowledge is created, shared, and applied. This symposium will bring together academic, research, and industry leaders to explore how institutions can harness AI effectively and responsibly. Discussions will address integrating AI into university curricula, advancing research through AI-powered methods, and fostering collaboration between academia and industry to translate AI-driven insights into real-world solutions. Participants will gain practical perspectives on preparing students, researchers, and professionals for an AI-driven future.

Luncheon Symposium

2025 PSK Undergraduate Research Symposium

Oct. 22nd (wed), 11:40-12:40, Room 404

The 2025 PSK Undergraduate research symposium is a session dedicated to presenting the research outcomes of pharmacy undergraduates. Through a review process conducted by the Education Committee of PSK, awardees were selected, and these students will present their academic and research achievements.

Symposium 1 Plenary Ⅰ -linked Symposium

[KPBMA 80th Anniversary]

Time-Defying Innovation: Transforming the Future of Pharma and Biotech

Oct. 22nd (wed), 13:50-17:00, LEWEST Hall A

The introduction of AI, patient segmentation using precision biomarkers, and the emergence of new modalities (ADC, CGT, RNA, Protac, Multi-specific Antibodies, etc.) that go beyond existing synthetic drugs and protein therapeutics are leading to a paradigm shift in new drug development.

However, the productivity of new drug development is gradually declining due to steadily increasing development costs and periods. In fact, global new drug development costs have nearly doubled over the past decade, and clinical trial periods have lengthened. Meanwhile, projected revenue per pipeline is stagnating or declining. To overcome this crisis, global pharmaceutical companies are making various efforts, including early technology acquisition, strategic partnerships with innovative companies, and AI-based research efficiency improvements.

This session focuses on three themes: application of new modalities, utilization of AI, and global clinical strategies. It focuses on real-world examples to provide a unified overview of the entire process of new drug development, from R&D to clinical trials and global expansion.

First, we share our experience applying next-generation therapeutics in practice, exploring the convergence of protein degradation and antibody technology, and the development of a Korean CAR-T treatment. Next, we explore how AI can enhance the efficiency of new drug development and expand commercial potential through the use of AI drug discovery platform and the expansion of indications. Finally, we introduce Xcopri, a successful multinational clinical trial, and the development of lazertinib, providing a detailed understanding of the process by which a new drug progresses from approval to commercialization on the global stage.

Through this, we will be able to gain solutions to overcome the challenges facing the domestic and international pharmaceutical industries and strategic insights to secure global competitiveness.

Symposium 2 The 8th Towards 100 Years Symposium

Advancing Polypharmacy Management in the Era of Evolving Pharmacy Practice: Roles and Research Perspectives

Oct. 22nd (wed), 13:50-15:30, 404 A+B+C

With the global acceleration of population aging and the rising prevalence of chronic diseases, polypharmacy has emerged as a critical public health issue worldwide. This trend significantly increases the risk of drug-related problems, potentially leading to negative therapeutic outcomes and inefficient use of healthcare resources.

In parallel, the role of pharmacists is rapidly evolving from a dispensing-focused function to one centered on pharmaceutical care and medication management. Multidisciplinary collaboration and patient-centered care are increasingly emphasized, particularly in community settings, long-term care facilities, and primary healthcare environments. In these diverse practice environments, the clinical interventions of pharmacists play a pivotal role in ensuring medication safety and optimizing treatment outcomes.

This symposium aims to redefine the role of pharmacists in polypharmacy management, share real-world intervention strategies and case studies, and foster evidence-based discussions to support the development of appropriate policies and institutional frameworks.

We are honored to invite Professor Amy Page, a leading expert in this field, to share her international insights on medication safety in older adults, clinical intervention experiences, and research-based models for practice transformation. Her contributions will provide a valuable perspective on how to advance pharmacist-led interventions in the management of polypharmacy.

Symposium 3

Advanced Platforms in Preventive Pharmacy : From Early Detection to Therapeutic Innovation

Oct. 22nd (wed), 13:50-15:30, 403 A+B+C

Recent advances in biomedical science are redefining the scope of preventive pharmacy by integrating state-of-the-art technologies for early detection, disease prevention, and therapeutic innovation. This symposium will showcase pioneering platforms that seamlessly connect fundamental research with clinical translation, opening new pathways to predict, diagnose, and treat diseases at their earliest and most manageable stages.

Presentations will cover the application of human pluripotent stem cell-derived alveolar macrophages as translational models in drug development, offering physiologically relevant systems that enhance the accuracy of safety and efficacy evaluations. Cutting-edge research on the immunoproteasome will also be highlighted, elucidating its diverse roles in immune regulation, inflammation, and as a promising therapeutic target. Further, innovative diagnostic and therapeutic platforms will be introduced, integrating molecular, cellular, and bioengineering strategies to advance precision medicine. The symposium will conclude with novel insights into environmental carcinogenesis, leveraging DNA adduct and mutation profiling to unravel exposure-driven mutational signatures and inform cancer prevention strategies.

Collectively, these presentations will underscore how advanced experimental models, mechanistic insights, and translational innovations can drive the evolution of preventive pharmacy—from early detection to the development of effective, targeted interventions.

Symposium 4

Innovations in Drug Discovery and Development: Advances from Medical Research Centers (MRC)

Oct. 22nd (wed), 13:50-15:05, 401 A+B

This session showcases the latest research achievements of professors and experts actively engaged in new drug development through the Medical Research Center (MRC) program at various pharmacy schools in South Korea. The first speaker of the symposium, Professor Chun-Woong Park from Chungbuk National University's College of Pharmacy, will present on the therapeutic applications of Orally Inhaled and Nasal Drug Products (OINDPs) for intractable diseases. Following him, Professor Jaecheol Lee from Sungkyunkwan University's College of Pharmacy will deliver an in-depth lecture on the use of human iPSC-based disease models to gain mechanistic insights and develop predictive platforms. The third speaker, Professor Hyungshin Yim from Hanyang University's College of Pharmacy, will discuss dual translational strategies against cancer, focusing on big data-driven insights and the synergy of microbiome metabolites with sorafenib. Next, Professor Keun-Gyu Park from Kyungpook National University's School of Medicine will share his latest research on the role of glutamine and iron metabolism in liver cancer development caused by chronic fatty acid exposure. Lastly, Dr. Jinwoo Lee from Animucure Inc. will introduce their pre-clinical platform for developing sarcopenia drugs based on organoid models.

This symposium will provide a valuable opportunity to grasp the latest achievements of the MRC centers, which are growing as the core of new drug development research in pharmacy schools, and to explore the future potential of these research-focused institutions.

Symposium 5

Global Multidisciplinary Collaboration in Pharmaceutical Sciences (Joint Symposium of The Pharmaceutical Society of Korea (PSK) and The Pharmaceutical Society of Taiwan (PST))

Oct. 22nd (wed), 13:50-15:30, 401 C

This joint symposium will bring together distinguished speakers from Korea and Taiwan, presenting topics ranging from studies using real-world data to evaluate medication safety to innovative pharmacological strategies for disease prevention and therapy. By integrating diverse disciplinary perspectives, the session underscores the strong partnership between the Pharmaceutical Society of Korea (PSK) and the Pharmaceutical Society of Taiwan (PST), and aims to foster meaningful academic exchange and future collaboration.

Symposium 6

Understanding Disease Pathogenesis and Identifying Therapeutic Targets

Oct. 22nd (wed), 13:50-15:30, 401 D

The field of pharmaceutical life sciences plays a central role in elucidating the molecular mechanisms underlying diseases and in developing novel therapeutic strategies based on these insights. This session will highlight recent advances that deepen our understanding of disease through scientific approaches encompassing cell biology, molecular pharmacology, and drug mechanism studies. Special emphasis will be placed on stem cell biology and omics-driven discoveries within specialized cells in pathological contexts, which together offer powerful tools for identifying therapeutic targets and unraveling complex disease pathways. The session also aims to provide a platform for early-career investigators to present innovative findings and share emerging trends in drug discovery and development.

Symposium 7 Plenary Ⅱ-linked Symposium

Strategies for Verifying the Quality, Safety, and Efficacy of Natural Products

Oct. 23rd (Thu), 09:10-10:50, LEWEST Hall A

With the recent increase in demand for natural product-based pharmaceuticals and health functional foods, the importance of quality control and regulation in the field of herbal medicines and traditional medicines has become increasingly prominent. In particular, to scientifically elucidate and quantify the bioactive components of natural products—which often contain diverse and complex constituents—the adoption of advanced analytical and standardization techniques, such as NMR and MS, at an international level is urgently required.

In this context, this symposium, under the theme of “Research on the Regulation and Standardization of Herbal and Traditional Medicines,” aims to bring together domestic and international experts to share the latest trends in quality control and regulatory frameworks. Through this exchange, it is expected that Korean researchers will be able to enhance their research capabilities to meet global standards.

Symposium 8

Innovative Pharma & Biotech Leadership: Future-Driven Drug Development, CEO's Message, and Societal Impact

Oct. 23rd (Thu), 09:10-10:50, 404 A+B+C

The pharmaceutical and biotechnology industries are undergoing a profound transformation, fueled by breakthroughs in precision medicine, the rapid rise of digital healthcare, and the global imperative of pandemic preparedness and response. These changes are driving not only technological innovation but also a heightened awareness of social responsibility.

This symposium will bring together CEOs from leading pharmaceutical companies to share their visions for the future of drug development, their perspectives on global leadership, and the core social values that guide their organizations. By fostering dialogue between industry leaders and the academic community, the event seeks to open new pathways for collaboration among industry, academia, and research institutions.

For pharmaceutical scientists and researchers, the symposium offers a unique opportunity to gain deeper insight into the evolving landscape of innovative drug development and to explore how academic research can more closely align with industrial progress—ultimately enhancing its societal value and impact.

Symposium 9

Neuroinflammation in Neurodegeneration: From Molecular Mechanism to Therapeutic Strategies

Oct. 23rd (Thu), 09:10-10:50, 403 A+B+C

Neurodegenerative diseases, including Alzheimer's disease, Parkinson's disease, frontotemporal dementia, and amyotrophic lateral sclerosis (ALS), encompass a wide range of neurological disorders whose social and medical burdens are rapidly increasing with the progression of population aging. These disorders are characterized by gradual neuronal loss and functional decline, and to date, no fundamental cures have been established. Recent studies suggest that neuroinflammation is not merely a secondary response in the pathophysiology of neurodegenerative diseases, but rather a key mechanism driving disease onset and progression. This symposium is designed to provide an in-depth exploration of the role of neuroinflammation in neurodegenerative diseases at the molecular level, and to seek new therapeutic strategies based on these insights. In particular, it will cover a broad spectrum of recent advances, including modulation of neuroimmune responses, understanding of inflammatory signaling pathways, preclinical models, and clinical applications, while highlighting the importance of interdisciplinary and integrative approaches. We hope that this symposium will serve as a platform to foster active exchange among researchers in the field and contribute to setting new research directions toward overcoming neurodegenerative diseases.

Symposium 10

Innovative Approaches in Cancer: From Target Discovery to Drug Development

Oct. 23rd (Thu), 09:10-10:50, 401 A+B

This session will present cutting-edge strategies in oncology drug discovery and development, spanning advances from molecular target identification to clinical translation. Topics include the first successful Phase I trial targeting fatty acid oxidation in advanced solid tumors, novel approaches to inhibiting AST factors to pioneer anti-metastatic therapies, and the eTOX-GAMS in silico platform, founded on the evolutionary toxicology paradigm, for systematic cancer target discovery. The program will also showcase next-generation small-molecule strategies in anticancer therapy and the development of programmable protein origami shuttles for precise, targeted drug delivery. By integrating breakthroughs in cancer metabolism, metastasis suppression, systematic target identification, chemical therapeutics, and biomolecular engineering, this session aims to foster interdisciplinary collaboration and accelerate the advancement of transformative cancer treatments.

Symposium 11

Next-Generation Radiopharmaceutical Therapy in Pharmacy

Oct. 23rd (Thu), 09:10-10:50, 401 C

With recent advances in precision medicine, radiopharmaceuticals are garnering attention in diagnostics and therapeutics. This symposium aims to provide an overview of the latest trends in the development of radiopharmaceutical therapeutics in the pharmacy field, integrating discussions on the design of next-generation radiopharmaceuticals, pharmacokinetic considerations, clinical applicability, and the evolving role of pharmacists. Experts from diverse fields—including drug development, nuclear medicine, and drug delivery systems—will participate to discuss new paradigms for the future direction of pharmaceutical sciences.

Symposium 12

Novel Nanotechnologies for Targeted Drug Delivery based on Mechanistic Properties of Disease

Oct. 23rd (Thu), 09:10-10:50, 401 D

This symposium will bring together leading researchers to explore state-of-the-art nanotechnology platforms designed for precision drug delivery. The symposium will focus on how disease-specific mechanistic insights - such as molecular pathways, tumor microenvironment characteristics, and subtype-specific therapeutic responses—can guide the design and optimization of advanced delivery systems.

Symposium 13

The Need for the Establishment of the Korean Society for Pharmacy Education for Future Pharmacy Education (Korean Association of Pharmacy Education (KAPE))

Oct. 23rd (Thu), 09:10-11:10, Room 402 A+B

In a rapidly changing higher education landscape, the need for an independent Korean Society of Pharmacy Education (KSPE) to address the future direction of pharmacy education, meet the demands of the times, and establish its academic standing has been raised within the pharmacy community.

This session was designed to share the insights of professors who have dedicated themselves to pharmacy education in the past, as well as the founding process, key projects, operational structure, and vision of the Korean Society for Medical Education (KSME), which has consistently provided direction for medical education. We also aim to explore the future direction of pharmacy education together.

This presentation will examine in detail the organizational structure, key activities, and participation methods necessary for the establishment of the KSPE. We hope this will serve as a practical reference for establishing a structural foundation for the future development of pharmacy education.

Symposium 14 The 16th Ohdang Symposium

Targeting Novel Pathways in Cancer: A Pharmacological Perspective

Oct. 23rd (Thu), 14:10-15:50, LEWEST Hall A

This symposium brings together leading researchers to explore innovative pharmacological approaches to cancer therapy, focusing on emerging pathways and novel therapeutic targets. The program addresses critical challenges in oncology through four distinct yet interconnected perspectives that span from metabolic drivers of metastasis to cellular senescence modulation. The symposium will examine how metabolic dysfunction, particularly fatty liver disease, creates a permissive environment for colorectal cancer metastasis. Additionally, the program will explore aberrant protein localization in gastrointestinal stromal tumors and the therapeutic potential of natural product-derived compounds in targeting stress response pathways. A significant focus will be placed on cellular senescence as both a barrier to tumorigenesis and a therapeutic target. The presentations will discuss innovative strategies for utilizing receptor tyrosine kinase inhibitors as senolytic agents through drug repositioning and examine the role of senescence in cancer biology.

Symposium 15

From Innovative Synthetic Methodologies to Pharmaceutical Applications

Oct. 23rd (Thu), 14:10-15:50, 404 A+B+C

In recent years, the field of small molecule research has undergone a transformative evolution, largely propelled by the advancement of innovative synthetic methodologies. These cutting-edge techniques have enabled the rational design and precise construction of novel chemical entities that exhibit not only remarkable structural complexity but also significant therapeutic relevance. As a result, researchers are now able to explore a broader chemical space and develop molecules with highly specific biological functions and improved drug-like properties.

This symposium will spotlight the translational potential of synthetic chemistry by featuring a series of presentations that bridge fundamental molecular innovation with real-world pharmaceutical applications. Topics will include the discovery and optimization of new small molecule candidates for the treatment of immune-related skin diseases such as atopic dermatitis and psoriasis, as well as the development of biomolecule-compatible oxidative functionalization platforms that are designed to operate under physiological conditions.

Further discussions will address advances in antibody-drug conjugate (ADC) technology, with a focus on site-specific labeling strategies that enhance targeting accuracy and therapeutic efficacy. Collectively, the session will showcase how modern synthetic chemistry not only fuels early-stage drug discovery but also plays a critical role in enabling future-ready translational research efforts.

Symposium 16

Expediting Drug Approval & Regulatory Innovation in the Era of AI/Big Data: Global Collaboration and Application of Advanced Methodologies (Korea Regulatory Science Center (KRSC))

Oct. 23rd (Thu), 14:10-15:50, 403 A+B+C

The pharmaceutical development landscape is rapidly evolving, driven by advances in artificial intelligence (AI), big data technologies, and the heightened demand for innovative drug supply accelerated by the pandemic. These shifts underscore the urgent need to enhance the efficiency of drug review and regulatory systems, while embracing new research methodologies. In this context, the symposium seeks to share international experiences with expedited review processes and explore the future of regulatory science through the application of cutting-edge approaches such as AI, big data, and real-world evidence (RWE).

Symposium 17

Neuroimmunology and Immunotherapy

Oct. 23rd (Thu), 14:10-15:50, (401 A+B

The Symposium on Neuroimmunology and Immunotherapy will bring together leading researchers who have elucidated diverse neuroimmunological phenomena regulated by the interplay between the nervous and immune systems. The program will cover the latest advances in understanding homeostasis and disease mechanisms in peripheral tissues (such as the olfactory and gastrointestinal systems) and pain-related neural circuits, as well as autoimmune diseases of the central nervous system. We also look forward to active discussions on emerging therapeutic strategies aimed at modulating neuroimmune interactions.

Symposium 18

Commemorating the 80th Anniversary of National Liberation Day History of Pharmacy XXII The Evolution of Drug Development Paradigms : A Historical Perspective and Future Outlook

Oct. 23rd (Thu), 14:10-16:30, 401 C

This symposium examines the trajectory of new drug development in Korea, highlighting historical experiences, successful case studies, and the challenges of applying artificial intelligence (AI) to pharmaceutical innovation. Professor Aeri Kim will provide a historical analysis of Korean drug development, categorizing its evolution into germination, formative, and take-off stages, and drawing lessons from the achievements and limitations of each era. Vice President Young-Mi Lee will present the case of Leclaza, discussing its success factors, significance, and broader impact, while addressing strategic considerations for future blockbuster drug development. CEO Woo Sung Son will explore the potential of AI-assisted drug discovery, underscoring the importance of integrating pharmaceutical expertise with computational approaches to enhance efficiency, reliability, and translational applicability. Collectively, these perspectives will provide a comprehensive understanding of Korea’s drug development experience and critical insights into the evolving role of AI in shaping the future of pharmaceutical innovation.

Symposium 19

Advanced Biotherapeutics CMC : Overcoming Formulation and DDS Hurdles

Oct. 23rd (Thu), 14:10-15:50, 401 D

As we enter the era of next-generation biopharmaceuticals, such as Antibody-Drug Conjugates (ADCs) and mRNA vaccines, the mastery of advanced formulation and Drug Delivery System (DDS) technologies has become a critical determinant for the success of new drug development. Advanced CMC (Chemistry, Manufacturing, and Controls) technologies that overcome existing limitations—including stability, high-concentration formulations, targeted delivery, and subcutaneous administration—are indispensable for successful commercialization and securing a global competitive edge.

This symposium is designed to introduce innovative strategies from the industry and to foster a collaborative discussion among experts from industry, academia, and research. Together, we will explore innovative approaches to overcome these technical hurdles and shape the future of biotherapeutics.

Symposium 20

Pioneering Formulation Technologies: Bridging Academia and Industry for Innovative Drug Development

(Oct. 24th (Fri), 10:00-11:40, LEWEST Hall A

The pharmaceutical industry is at a pivotal moment, confronting the challenges of increasingly complex drug development, heightened regulatory expectations for quality assurance, and the growing demand for greater manufacturing efficiency. In this context, the transition toward digital transformation, AI-enabled technologies, and Pharma 4.0 principles has become essential for advancing pharmaceutical production.

This symposium will present the latest advancements in pharmaceutical continuous manufacturing and process innovation, emphasizing the integration of production and quality control into a unified platform. It will address strategies to ensure stable and consistent processing of active pharmaceutical ingredients with challenging physical properties, the application of process analytical technology (PAT) for real-time monitoring, and the use of AI and digital tools to drive process intensification, operational reliability, and regulatory compliance. By harnessing these technologies, the industry can overcome the inherent limitations of traditional batch manufacturing and establish high-efficiency, high-quality production environments.

Bringing together experts from the pharmaceutical and biotechnology industries, process development engineers, AI and automation specialists, and regulatory and quality professionals, this symposium will serve as a multidisciplinary forum to share industrial best practices, explore technological synergies, and discuss strategic pathways toward the next generation of pharmaceutical manufacturing in the era of digital transformation.

Symposium 21

Pharmaceutical Policy and Strategy

Oct. 24th (Fri), 10:00-11:45, 404 A+B+C

The Pharmaceutical Society of Korea is pleased to announce a special symposium session dedicated to the future of pharmaceutical research and development in Korea. In light of the new government's vision for science and technology, this session will bring together distinguished experts in pharmaceutical sciences, policy, and industry to discuss forthcoming strategies and national priorities in R&D. The symposium will serve as a platform to share insights on how government initiatives, funding mechanisms, and regulatory frameworks will shape the trajectory of pharmaceutical innovation. Participants will have the opportunity to engage in dialogue with thought leaders who are actively shaping Korea's pharmaceutical research agenda, ensuring alignment between academic research, industry needs, and public health objectives. This session aims not only to present policy directions but also to inspire collaboration across disciplines, fostering an ecosystem where scientific discovery can translate into tangible health solutions.

Symposium 22

High-quality public data for data-driven pharmaceutical and biomedical research (Korea BioData Station (K-BDS))

Oct. 24th (Fri), 10:00-11:40, 403 A+B+C

Since 2022, the Ministry of Science and ICT (MSIT) of Korea has been operating the Korea BioData Station (K-BDS), a national platform to collect and share diverse biological research data generated from government-funded R&D projects. To ensure the reliability and usability of data deposited in K-BDS, four Data Curation Centers were established in 2022, each specializing in a key area: proteomics, metabolomics, chemical compounds, and bioimaging. Genomics data are curated and managed separately by the Korea Bioinformation Center (KOBIC). These centers are not only responsible for quality control and curation but also provide expert consultation throughout the data lifecycle, from generation to analysis and interpretation. They also develop and disseminate standardized data quality guidelines to help researchers produce high-quality, reproducible data.

All areas of genomics, transcriptomics, proteomics, metabolomics, chemical information, and bioimaging are closely related to pharmaceutical science. This symposium showcases how high-quality public data deposited in K-BDS can empower data-driven research. It also highlights the activities, infrastructure, and research support efforts undertaken by each Data Quality Center over the past three years. The session aims to raise awareness among researchers and encourage broader engagement with national bio-data resources.

Symposium 23

Pathophysiology of Immunological Disorders

Oct. 24th (Fri), 10:00-11:40, 401 A+B

Immunological disorders, encompassing autoimmune diseases, allergies, and chronic inflammatory conditions, represent a rapidly growing challenge in modern medicine. A comprehensive understanding of their complex pathophysiology is essential for developing effective, next-generation therapeutics and advancing personalized medicine. This symposium will address the intricate molecular mechanisms driving these diseases, from inflammasome activation and the regulation of cell death to aberrant signaling pathways. It will also explore emerging paradigms at the forefront of the field, such as immuno-metabolism, immune regulation within the tumor microenvironment, and the interplay between vascular remodeling and immune responses. By presenting the latest research in immunomodulation, this session aims to provide novel perspectives on disease mechanisms and shape future directions for therapeutic development.

Symposium 24

Advances in Mass Spectrometry for Pharmaceutical and Biomedical Research

Oct. 24th (Fri), 10:00-11:40, 401 C

This symposium will highlight recent advances in mass spectrometry-based techniques and their expanding roles in pharmaceutical and biomedical research. Topics will span the application of next-generation mass spectrometry in cutting-edge biologic drug development, the integration of artificial intelligence and machine learning into data acquisition and analysis, and novel workflows that enhance sensitivity, throughput, and biological insight. Attendees will gain a comprehensive overview of current trends and emerging innovations that are driving the future of pharmaceutical and biomedical research.

Symposium 25

Designing Life Beyond Medicine: The Era of Integrated Life Sciences

Oct. 24th (Fri), 10:00-11:40, 401 D

With the rapid development of bio-health technologies in the era of the Fourth Industrial Revolution, the scope of life science research is expanding beyond disease treatment toward the design and modulation of life itself. Pharmaceutical sciences are evolving into an integrative discipline that addresses not only drug development but also the regulation of complex biological systems.

This symposium aims to foster interdisciplinary dialogue across life sciences, medicine, and pharmaceutical sciences, focusing on how key biological components—such as viruses, microbes, and protein networks—can be understood and harnessed for therapeutic innovation.

Featured talks include: Virus-host immune interactions (Prof. Moonjung Song), Tumor-host interaction (Prof. Nayoung Song), AI and physics-based drug design (Prof. Jooyong Lee), The history and future of drug development (Prof. Seungman Baek).

Programs for Symposia

Plenary Lecture Ⅰ

[KPBMA 80th Anniversary]

Revolutionizing Cancer Treatment with ADCs: A Deep Dive into the Early Clinical Development of T-DXd

Oct. 22nd (Wed), 12:50-13:40, LEWEST Hall A

Chair	**Dongyun Shin** (College of Pharmacy, Gachon University)

PL Ⅰ	**Revolutionizing cancer treatment with ADCs: a deep dive into the early clinical development of T-DXd**
12:50-13:40	**Dr. Yoshinori Kawaguchi** (Daiichi Sankyo Co., Ltd., Japan)

Plenary Lecture Ⅱ

Integrative Science Advances Pharmaceutical Integrity

Oct. 23rd (Thu), 16:10-16:50, LEWEST Hall A

Chair	**Joo-Won Nam** (College of Pharmacy, Yeungnam University)

PL Ⅱ	**Integrative science advances pharmaceutical integrity**
16:10-16:50	**Dr. Guido Frank Pauli** (Retzky College of Pharmacy, University of Illinois Chicago, USA)

2025 Ohdang Award Lecture

Dependence receptors: a new paradigm in cell signaling and cancer therapy

Oct. 23rd (Thu), 13:20-14:00, LEWEST Hall A

Chair	**Sun-Young Han** (College of Pharmacy, Gyeongsang National University)

OAL	**Dependence receptors: a new paradigm in cell signaling and cancer therapy**
13:20-14:00	**Dr. Patrick Mehlen** (The Research Cancer Center of Lyon (CRCL), France)

2025 PSK Award Lecture

Chair	**Eun Sook Hwang** (College of Pharmacy, Ewha Womans University)

	Oct. 24th (Fri), 09:10-09:50, LEWEST Hall A
PAL Ⅰ	**PSK Pharmaceutical Achievement Award: Handok Pharmaceutical Achievement Award**
09:10-09:50	**Chitinase 3 like 1: a multifaceted player in inflammatory diseases and cancer pathologies with therapeutic implications**
	Dr. Jin Tae Hong (College of Pharmacy, Chungbuk National University)

Chair	**Joo Young Lee** (College of Pharmacy, The Catholic University of Korea)

	Oct. 22nd (Wed), 15:50-16:40, Room 404
PAL Ⅱ	**Yoon Gwang Yeol Pharmaceutical Achievement Award**
15:50-16:10	**Targeting the HER2-ELF3-KRAS axis: a novel therapeutic strategy for KRASG13D colorectal cancer**
	Dr. Youngjoo Kwon (College of Pharmacy, Ewha Womans University)

	Oct. 22nd (Wed), 16:15-16:40, Room 404
PAL Ⅲ	**Nokam Pharmaceutical Achievement Award**
16:15-16:35	**Small molecule strategies for intractable tumors**
	Dr. Kyeong Lee (College of Pharmacy, Dongguk University)

Educational Program

Ai era: how should we prepare for the future?

Oct. 22nd (Wed), 10:30-11:30, LEWEST Hall A

Organizer	**Ka Young Chung** (School of Pharmacy, Sungkyunkwan University)
Chair	**Young-Suk Jung** (College of Pharmacy, Pusan National University)

EP	**AI Era: How Should We Prepare for the Future?**
10:30-11:30	**Hyunsoo Kim** (Mechanical Engineering, Sungkyunkwan University)

Luncheon Symposium

2025 PSK Undergraduate Research Symposium

Oct. 22nd (Wed), 11:40-12:40, Room 404

Organizer	**TBA** (TBA)
&Chair	**TBA** (TBA)

11:40-11:45	**Opening Remarks**
LS-1 **11:45-11:50**	우수상 **Effect of PAI-1 inhibitor on metabolic dysfunction-associated steatohepatitis** **Kihyeon Kim, Mijeong Park, Aram Woo, Soonbeen Hwang** (College of Pharmacy, Dankook University)
LS-2 **11:50-11:55**	우수상 **GPR43 activation triggers PANoptosis in triple-negative breast cancer by suppressing cAMP signaling** **Jihyun Cheon** (College of Pharmacy, Woosuk University)
LS-3 **11:55-12:00**	우수상 **Dual anti-obesity and anti-diabetic effects of plant extracts** **Jeongun Lee** (School of Pharmacy, Sungkyunkwan University)
LS-4 **12:00-12:05**	우수상 **Cell-derived nanovesicle-CNT biosensor utilizing P2X4 ion channels for ATP detection** **Joohyun Kang, Eunsoo Song, Yeonjoo Ha** (College of Pharmacy, Sookmyung Women's University)
LS-5 **12:05-12:10**	우수상 가시광선 활성화 프로드럭 나노입자를 활용한 시너지적 화학요법 및 광역학치료 **Soo Hyun Son** (Duksung Women's University)

	Sang Hee Choi (College of Pharmacy, Chosun University)
LS-6 **12:10-12:15**	최우수상 **Establishment of artificial intelligence/machine learning models for ASK1 inhibitor prediction** **Seung Ho Yu** (School of Pharmacy, Sungkyunkwan University)
LS-7 **12:15-12:20**	최우수상 **Ferroptosis inhibition underlies oleamide's neuroprotective and antiseizure effects** **Nayoung Hwang** (College of Pharmacy, Ewha Womans University)
LS-8 **12:20-12:25**	대상 **Dual-modal therapy for melanoma: photodynamic and targeted therapy using vemurafenib/Ce6-loaded microspheres in dissolving microneedles** **Minkyoung Suh, Yeoeun Lee, Dahye Jun** (College of Pharmacy, Seoul National University)
12:25-12:30	**Closing Remarks**

Symposium 1 Plenary I -linked Symposium

[KPBMA 80th Anniversary]

Time-Defying Innovation: Transforming the Future of Pharma and Biotech

Oct. 22nd (Wed), 13:50-17:00, LEWEST Hall A

Chair	**Hyungseok Seo** (College of Pharmacy, Seoul National University)
S1-1 **13:50-14:20**	**Combining the power of protein degraders with the precision of antibodies for synergistic potential using degrader-antibody conjugates (DACs)** **Sang Hyun Lee (Shawn)** (Orum Therapeutics)
S1-2 **14:20-14:50**	**Lessons learned from the development of Korea's first CAR-T therapy** **Gunsoo Kim** (Curocell Inc.)
Chair	**Junhee Pyo** (Convergence AI Institute for Drug Discovery, KPBMA)
S1-3 **14:50-15:20**	**Introduction of HARP (Hanmi AI-driven research platform) with actual application cases** **Haemin Chon** (Hanmi Pharm)
S1-4 **15:20-15:50**	**The current landscape of AI-driven drug discovery & development and indication expansion with AI** **Yirang Kim** (ONCOCROSS)
Chair	**Soon Nam Kim** (R&D, Korea Drug Development Fund (KDDF))
S1-5 **16:00-16:30**	**Global journey in successful development and commercialization of XCOPRI** **Jungshin Park** (SK Biopharmaceuticals Co., Ltd.)
S1-6 **16:30-17:00**	**Successful experience in lazertinib development** **Seoungoh Lee** (Yuhan Corporation)

Symposium 2 The 8th Towards 100 Years Symposium

Advancing Polypharmacy Management in the Era of Evolving Pharmacy Practice: Roles and Research Perspectives

Oct. 22nd (Wed), 13:50-15:30, 404 A+B+C

Organizer	**Kyung Eun Lee** (College of Pharmacy, Chungbuk National University) **Ju Young Shin** (College of Pharmacy, Sungkyunkwan University)
Chair	**Ju-Yeun Lee** (College of Pharmacy, Seoul National University) **Ju Young Shin** (College of Pharmacy, Sungkyunkwan University)
S2-1 **13:50-14:15**	**Current trends of medication review in long-term care facilities, Australia** **Amy Page** (University of Western Australia)
S2-2 **14:15-14:40**	**From practice to evidence: Gyeonggi's pharmacist-led home visit program and its research outcomes** **Sun-Kyeong Park** (College of Pharmacy, The Catholic University of Korea)
S2-3 **14:40-15:05**	**Polypharmacy management program: collaboration between general hospital and community pharmacy** **Ju Sin Kim** (Department of pharmacy, College of pharmacy, Wonkwang University)
S2-4 **15:05-15:30**	**Medication management program in Korean long-term care facilities based on a multidisciplinary collaboration model** **Young-Mi Ah** (College of Pharmacy, Yeungnam University)

Symposium 3

Advanced Platforms in Preventive Pharmacy : From Early Detection to Therapeutic Innovation

Oct. 22nd (Wed), 13:50-15:30, 403 A+B+C

Organizer	**Do Sik Min** (College of Pharmacy, Yonsei University)
Chair	**Joo Young Lee** (College of Pharmacy, The Catholic University of Korea)
S3-1 **13:50-14:15**	**Engineering immunity in a dish: hPSC-derived macrophages and organoids for drug discovery and therapy** **Jung-Hyun Kim** (College of Pharmacy, Ajou University)
S3-2 **14:15-14:40**	**New insights into the role of the immunoproteasome** **Hiroaki Kimura** (Department of Pharmaceutical Health Sciences, School of Pharmacy, Kyushu University of Medical Sciences, Japan)
S3-3 **14:40-15:05**	**Advancing innovative platforms for diagnostics and therapeutics** **Yoo Kyung Kang** (College of Pharmacy, Gyeongsang National University)
S3-4 **15:05-15:30**	**Decoding environmental carcinogenesis for cancer prevention: insights from DNA adduct and mutation profiling** **Yukari Totsuka** (Department of Environmental Health Sciences, Hoshi University, Japan)

Symposium 4

Innovations in Drug Discovery and Development: Advances from Medical Research Centers (MRC)

Oct. 22nd (Wed), 13:50-15:05, 401 A+B

Organizer	**Yoon-Seok Roh** (College of Pharmacy, Chungbuk National University)
Chair	**Hanseul Park** (College of Pharmacy, Chungbuk National University)
S4-1 **13:50-14:05**	**Orally inhaled and nasal drug products (OINDPs): therapeutic applications for intractable diseases** **Chun-Woong Park** (College of Pharmacy, Chungbuk National University)
S4-2 **14:05-14:20**	**Human iPSC-based disease models from mechanistic insights to predictive platforms** **Jaecheol Lee** (School of Pharmacy, Sungkyunkwan University)
S4-3 **14:20-14:35**	**Dual translational strategies against cancer: big data-driven insights into malignancy and microbiome metabolites synergy with sorafenib** **Hyungshin Yim** (College of Pharmacy, Hanyang University)
S4-4 **14:35-14:50**	**Glutamine and iron metabolism in chronically fatty acid-exposed liver cancer** **Keun-Gyu Park** (School of Medicine, Kyungpook National University)
S4-5 **14:50-15:05**	**Developing organoid-based pre-clinical platform for sarcopenia drug discovery** **Jinwoo Lee** (Animuscure Inc.)

Symposium 5

Global Multidisciplinary Collaboration in Pharmaceutical Sciences (Joint Symposium of The Pharmaceutical Society of Korea (PSK) and The Pharmaceutical Society of Taiwan (PST))

Oct. 22nd (Wed), 13:50-15:30, 401 C

Organizer & Chair	**Soyoung Shin** (College of Pharmacy, Chung-Ang University)
S5-1 **13:50-14:15**	**Using real-world data to evaluate medication safety of pregnant women: experiences from health and welfare database in Taiwan** **Dr. Chung-Hsuen Wu** (Secretary General of PST/ Professor and Chairman of School of Pharmacy, National Yan Ming Chiao Tung University)
S5-2 **14:15-14:40**	**Efficacy and mechanism of plasmon activated water on restenosis prevention** **Dr. Chieh-Hsi Wu** (Executive Director of PST/ Chair Professor of School of Pharmacy, Taipei Medical University
S5-3 **14:40-15:05**	**Assessment of medication safety for autoimmune diseases using real-world data in Korea** **Sun-Young Jung** (College of Pharmacy, Chung-Ang University)
S5-4 **15:05-15:30**	**Neurovascular protection by losartan: repurposing an antihypertensive for the brain** **Soo Young Kim** (College of Pharmacy, Yeungnam University)

Symposium 6

Understanding Disease Pathogenesis and Identifying Therapeutic Targets

Oct. 22nd (Wed), 13:50-15:30, 401 D

Organizer	**Ja Hyun Koo** (College of Pharmacy, Seoul National University)
Chair	**Yong-Hyun Han** (College of Pharmacy, Kangwon National University)

S6-1	**In vivo partial reprogramming as a strategy for tissue regeneration**
13:50-14:15	**Jumee Kim** (College of Pharmacy, Sookmyung Women's University)
S6-2	**Deciphering the molecular mechanisms of stem cell dynamics in hair follicle regeneration**
14:15-14:40	**Sekyu Choi** (Department of Life Sciences, POSTECH)
S6-3	**Transcriptional regulation of hepatic stellate cell phenotypes during liver fibrosis resolution**
14:40-15:05	**Wonseok Lee** (College of Pharmacy, Gachon University)
S6-4	**Targeting isoform specific metabolic enzymes in liver disease**
15:05-15:30	**Hyunsoo Rho** (College of Pharmacy, Ewha Women's University)

Symposium 7 Plenary Ⅱ-linked Symposium

Strategies for Verifying the Quality, Safety, and Efficacy of Natural Products

Oct. 23rd (Thu), 09:10-10:30, LEWEST Hall A

Organizer	**Seon Beom Kim** (College of Natural Resources and Life Science, Pusan National University)
Chair	**Dong-Sung Lee** (College of Pharmacy, Chosun University)

S7-1 **09:10-09:30**	**Quality, Safety, and Efficacy Enhancement Strategies for Herbal and Traditional Medicinal Materials Using HME-DDS technology** **Jong-Suep Baek** (College of Health Sciences, Kangwon National University)
S7-2 **09:30-09:50**	**The applicability of ^{1}H NMR spectroscopy in quality control of traditional Korean medicine formulation products** **Kyo Bin Kang** (College of Pharmacy, Sookmyung Women's University)
S7-3 **09:50-10:10**	**Global R&D of MT101 as a full-spectrum botanical drug for Parkinson's disease** **Jin Gyu Choi** (Mthera Pharma Co., Ltd.)
S7-4 **10:10-10:30**	**Efficacy-based quality control of Korean medicines** **Ki Sung Kang** (College of Korean Medicine, Gachon University)

Symposium 8

Innovative Pharma & Biotech Leadership: Future-Driven Drug Development, CEO's Message, and Societal Impact

Oct. 23rd (Thu), 09:10-10:50, 404 A+B+C

Organizer	**Sang Ho Lee** (College of Pharmacy, Jeju National University)
Chair	**Minsun Chang** (College of Science, Sookmyung Women's University)

S8-1	**Yuhan's vision for innovative global new targeted cancer drug development**
09:10-09:35	**Yeul Hong Kim** (Yuhan Corporation)
S8-2	**Patient-centricity and craftsmanship in drug development: lessons from Daiichi Sankyo for Korea's pharma-biotech industry**
09:35-10:00	**Jeong-Tae Kim** (Daiichi Sankyo Korea)
S8-3	**Long-acting microsphere innovations: Impact on global health and social value**
10:00-10:25	**Heeyong Lee** (G2GBIO, Inc.)
S8-4	**The importance of new drug development in the fourth industrial revolution**
10:25-10:50	**Sang Hoon Kwak** (Atinum Investment)

Symposium 9

Neuroinflammation in Neurodegeneration: From Molecular Mechanism to Therapeutic Strategies

Oct. 23rd (Thu), 09:10-10:50, 403 A+B+C

Organizer & Chair	**Ka Young Chung** (School of Pharmacy, Sungkyunkwan University)

S9-1	**Unraveling Alzheimer's disease: Exploring risk factors and innovative therapies**
09:10-09:35	**Min-Kyoo Shin** (College of Pharmacy, Seoul National University)

S9-2	**ZNF746 initiates c-Abl–driven neurotoxicity and glial inflammatory remodeling in Parkinson's disease**
09:35-10:00	**Yunjong Lee** (School of Medicine, Sungkyunkwan University)

S9-3	**Blood-brain-barrier disruption mechanism by microglial NLRP3 inflammasome**
10:00-10:25	**Je-Wook Yu** (College of Medicine, Yonsei University)

S9-4	**Cannabidiol for Gulf War Illness: Targeting toxic exposure-induced neuroinflammation**
10:25-10:50	**Kwang-Mook Jung** (University of California, Irvine)

Symposium 10

Innovative Approaches in Cancer: From Target Discovery to Drug Development

Oct. 23rd (Thu), 09:10-10:50, 401 A+B

Organizer	**Minsoo Noh** (College of Pharmacy, Seoul National University)
Chair	**Young Ae Joe** (College of Medicine, The Catholic University of Korea)

S10-1	**Targeting fatty acid oxidation: first phase 1 success story in advanced solid tumours**
09:10-09:30	**Soo-Youl Kim** (National Cancer Center/ New Cancer Cure-Bio Co.)

S10-2	**Adherent-to-suspension transition and anti-metastatic therapy**
09:30-09:50	**Hyun Woo Park** (College of Life Science & Biotechnology, Yonsei University)

S10-3	**Evolutionary toxicology (eTOX) paradigm reveals the vitamin D–prostaglandin metabolic axis as a tumor-suppressive mechanism of STK11/LKB1 in lung adenocarcinoma**
09:50-10:10	**Sang-Min Jeon** (College of Pharmacy, Seoul National University)

S10-4	**Innovative small-molecule strategies for modulating cancer pathways**
10:10-10:30	**Jinha Yu** (College of Pharmacy, Ewha Womans University)

S10-5	**Programmable protein origami shuttle for targeted delivery**
10:30-10:50	**In-Gyun Lee** (College of Pharmacy, Seoul National University)

Symposium 11

Next-Generation Radiopharmaceutical Therapy in Pharmacy

Oct. 23rd (Thu), 09:10-10:50, 401 C

Organizer	**Dong-Yeon Kim** (College of Pharmacy, Gyeongsang National University)
Chair	**Seung-Yong Seo** (College of Pharmacy, Gachon University)

S11-1	**The past, present, and future of Radiopharmaceuticals**
09:10-09:35	**Yun-Sang Lee** (College of Medicine, Seoul National University)
S11-2	**Development and support of radiopharmaceuticals in Korea Radioisotope center for Radiopharmaceuticals (KRiCP)**
09:35-10:00	**Yong Jin Lee** (Korea Institute of Radiological & Medical Sciences)
S11-3	**Phenotype-based identification of small molecule therapeutics against acute radiation syndrome (ARS)**
10:00-10:25	**Dong-Jo Chang** (College of Pharmacy, Sunchon National University)
S11-4	**Accelerating Biopharmaceutical Development: Using Radioisotopes to Evaluate Extracellular Vesicles (EVs)**
10:25-10:50	**Heejung Kim** (Korea Radioisotope Center for Pharmaceuticals, Korea Institute of Radiological and Medical Sciences)

Symposium 12

Novel Nanotechnologies for Targeted Drug Delivery based on Mechanistic Properties of Disease

Oct. 23rd (Thu), 09:10-10:50, 401 D

Organizer	**Junho Byun** (College of Pharmacy, Sookmyung Women's University)
Chair	**Yoo Kyung Kang** (College of Pharmacy, Gyeongsang National University)

S12-1	**Integrative nanotechnology approaches for precision cancer therapy**
09:10-09:35	**Yuseon Shin** (College of Pharmacy, Chungbuk National University)
S12-2	**Mechanism-informed drug delivery strategies in cancer targeted therapy and biotherapeutics**
09:35-10:00	**Ha Rin Kim** (Biopharmaceutical Chemistry, Kookmin University)
S12-3	**Polymeric drug delivery systems for chemoimmunotherapy in breast cancer with subtype specific therapeutic outcomes**
10:00-10:25	**Duhyeong Hwang** (College of Pharmacy, Keimyung University)
S12-4	**Engineering drug-delivery systems for precision medicine**
10:25-10:50	**Mikyung Kang** (School of Health and Environmental Science, Korea University)

Symposium 13

The Need for the Establishment of the Korean Society for Pharmacy Education for Future Pharmacy Education (Korean Association of Pharmacy Education (KAPE))

Oct. 23rd (Thu), 09:10-11:10, Room 402 A+B

Organizer	**Tae Jin Kang** (College of Pharmacy, Sahmyook University)
Chair	**Moo Yeol Lee** (College of Pharmacy, Dongguk University)

S13-1	**The need for the establishment of the Korean Society for pharmaceutical education**
09:10-09:50	**Beom-Jin Lee** (College of Pharmacy, Ajou University)
S13-2	**The Role of the Korean Society of Medical Education (KSME) in the Development of Medical Education**
09:50-10:30	**Sung-soo Jung** (College of Medicine, Chungnam National University)
S13-3	**The time is now for the future of pharmacy education**
10:30-11:10	**Kyungim Kim** (College of Pharmacy, Korea University)

Symposium 14 The 16th Ohdang Symposium

Targeting Novel Pathways in Cancer: A Pharmacological Perspective

Oct. 23rd (Thu), 14:10-15:50, LEWEST Hall A

Organizer	**Sun-Young Han** (College of Pharmacy, Gyeongsang National University)
Chair	**Sung Hoon Lee** (College of Pharmacy, Chung-Ang University)

S14-1	**Fatty liver drives colorectal cancer liver metastasis**
14:10-14:35	**Yoon Mee Yang** (School of Pharmacy, Sungkyunkwan University)
S14-2	**Aberrant localization of mutant receptor tyrosine kinase in gastrointestinal stromal tumors and targeting of stress-response pathways with clinically available drugs**
14:35-15:00	**Wonkyu Kim** (Korea Institute of Science and Technology)
S14-3	**Senolysis through the repositioning of cancer therapeutics targeting receptor tyrosine kinases**
15:00-15:25	**Young-Sam Lee** (Department of New Biology, DGIST)
S14-4	**Targeting cellular senescence for cancer therapy**
15:25-15:50	**Soyoung Lee** (Johannes Kepler University Linz, Austria)

Symposium 15

From Innovative Synthetic Methodologies to Pharmaceutical Applications

Oct. 23rd (Thu), 14:10-15:50, 404 A+B+C

Organizer	**Jae-Hwan Kwak** (College of Pharmacy, Chungbuk National University)
Chair	**Hyun Jin Kim** (Korea Research Institute of Chemical Technology (KRICT))
S15-1 **14:10-14:35**	**Biomolecule-compatible oxidative functionalization as a tool for innovative drug discovery platforms** **Jaehoon Sim** (College of Pharmacy, Kyung Hee University)
S15-2 **14:35-15:00**	**Lewis acid-mediated cyanomethyl ether synthesis from MEM-ethers with trimethylsilyl cyanide** **Jongkook Lee** (College of Pharmacy, Kangwon National University)
S15-3 **15:00-15:25**	**Discovery of new therapeutic agents for atopic dermatitis & psoriasis** **Yong-Chul Kim** (College of Life Sciences and Medical Engineering, GIST)
S15-4 **15:25-15:50**	**Affinity-directed site-specific protein labeling and its application to antibody-drug conjugates** **Hyun Soo Lee** (Department of Chemistry, Sogang University)

Symposium 16

Expediting Drug Approval & Regulatory Innovation in the Era of AI/Big Data: Global Collaboration and Application of Advanced Methodologies (Korea Regulatory Science Center (KRSC))

Oct. 23rd (Thu), 14:10-15:50, 403 A+B+C

Organizer & Chair	**Insook Park** (Korea Regulatory Science Center)
S16-1 **14:10-14:35**	**Verification and validation considerations in physiologically based biopharmaceutics modeling (PBBM)** **James E. Polli** (School of Pharmacy, University of Maryland, USA)
S16-2 **14:35-15:00**	**The impact of immature clinical data on colorectal cancer health economic modeling** **SeungJin Bae** (College of Pharmacy, Ewha Womans University)
S16-3 **15:00-15:25**	**From data to decisions: Taiwan's regulatory pathways for RWD/RWE in drug approval** **Huang-Tz Ou** (Institute of Clinical Pharmacy and Pharmaceutical Sciences, National Cheng Kung University, Taiwan)
S16-4 **15:25-15:50**	**Korean expedited review system: Current status and the GIFT program** **Jae Hyun Park** (Expedited Review Division of Medicine and Medical Devices, National Institute of Food and Drug Safety Evaluation)

Symposium 17

Neuroimmunology and Immunotherapy

Oct. 23rd (Thu), 14:10-15:50, 401 A+B

Organizer	**Je-Min Choi** (Department of Life Science, Hanyang University)
Chair	**Seog Bae Oh** (Department of Neurobiology and Physicology School of Dentistry, Seoul National University)

S17-1	**Gastric mechanical stretch influence neuronal and immunological circuit**
14:10-14:35	**Do-Hyun Kim** (Department of Life Science, Hanyang University)
S17-2	**Mechanism of vincristine induced peripheral neuropathy**
14:35-15:00	**Seung-Jun Yoo** (Department of Life Science, Hanyang University)
S17-3	**Therapeutic targeting of CTLA-4-PKCη axis to enhance Tregs and ameliorate autoimmune disease**
15:00-15:25	**Je-Min Choi** (Department of Life Science, Hanyang University)
S17-4	**Natural killer cell based immunotherapy for chronic pain**
15:25-15:50	**Seog Bae Oh** (Department of Neurobiology and Physiology, School of Dentistry, Seoul National University)

Symposium 18

Commemorating the 80th Anniversary of National Liberation Day History of Pharmacy XXII
The Evolution of Drug Development Paradigms : A Historical Perspective and Future Outlook

Oct. 23rd (Thu), 14:10-16:30, 401 C

Organizer	**Chang-Koo Shim** (College of Pharmacy, Seoul National University)
Chair	**Yeowon Sohn** (School of Pharmacy, Sungkyunkwan University)
S18-1 **14:10-14:50**	**Forty Years of New Drug Development in Korea : From Technology Out-Licensing to Direct Global Entry** **Aeri Kim** (College of Pharmacy, CHA University)
S18-2 **14:50-15:30**	**Developing global blockbusters: case study from Yuhan and strategic recommendations** **Young-Mi Lee** (Yuhan Corporation)
S18-3 **15:30-16:10**	**From molecules to data, the future of drug discovery defined by AI** **Woo Sung Son** (Novorex Inc.)
16:10-16:30	**Panel Discussion** **Hyun Joo Shim** (School of Pharmacy, Jeonbuk National University) **Junhee Pyo** (Convergence AI Institute for Drug Discovery, KPBMA)

Symposium 19

Advanced Biotherapeutics CMC : Overcoming Formulation and DDS Hurdles

Oct. 23rd (Thu), 14:10-16:00, (401 D

Organizer	**Jaewoon Son** (GC Biopharma)
Chair	**Jineon So** (LG Chem)
S19-1 **14:10-14:35**	**High concentration challenges for biopharmaceutical drug substance and drug product** **Heonchang Lim** (Samsung biologics)
S19-2 **14:35-15:05**	**Development analytical methods for ADC IND dossier** **Younghee Jeong** (LigaChem Biosciences)
S19-3 **15:05-15:35**	**Development of Potent Lipid Nanoparticles for Target Specific mRNA Delivery** **Jiyeon Son** (GC Biopharma)
S19-4 **15:35-16:00**	**ALT-B4, a recombinant hyaluronidase, for formulation development of subcutaneous administration** **Kyuwan Kim** (Alteogen Inc.)

Symposium 20

Pioneering Formulation Technologies: Bridging Academia and Industry for Innovative Drug Development

Oct. 24th (Fri), 10:00-11:40, LEWEST Hall A

Organizer	**Hyo-Kyung Han** (College of Pharmacy, Dongguk University-Seoul)
Chair	**Jun-Pil Jee** (College of Pharmacy, Chosun University)
S20-1 **10:00-10:25**	**Digital transformation based Pharma 4.0 and AI-driven pharmaceutical continuous process innovation technology** **Joo-Eun Kim** (School of Applied Chemistry, College of Science and Technology, Kookmin University)
S20-2 **10:25-10:50**	**Development of production and quality control integration platform for pharmaceutical continuous manufacturing** **Min-Soo Kim** (College of Pharmacy, Pusan National University)
S20-3 **10:50-11:15**	**Stable feeding of API with challenging physical properties in continuous loss-in-weight systems: characterization of API–filler pre-blend and process parameters** **Seung-Dong Yoo** (School of Pharmacy, Sungkyunkwan University)
S20-4 **11:15-11:40**	**Advances and strategic implementation of process analytical technology (PAT) in pharmaceutical manufacturing** **Sangbo Shim** (Mastor Korea)

Symposium 21

Pharmaceutical Policy and Strategy

Oct. 24th (Fri), 10:00-11:45, 404 A+B+C

Organizer	**Kyung Taek Oh** (College of Pharmacy, Chung-Ang University)
Chair	**Sang-Bae Han** (College of Pharmacy, Chungbuk National University)
S21-1	**The Division of Drug Discovery and Development, NRF: Policy, Strategy, and Future Directions**
10:00-10:35	**Gil-Saeng Jung** (Division of Drug Discovery and Development, National Research Foundation of Korea)
S21-2	**Bio-health R&D policy and strategy**
10:35-11:10	**Sarah Jung** (Korea Health Industry Development Institute)
S21-3	**Introduction to drug manufacturing innovation support policy and strategy by MOTIE**
11:10-11:45	**Hyung Chul Kim** (KEIT (Korea Planning & Evaluation Institute of Industrial Technology))

Symposium 22

High-quality public data for data-driven pharmaceutical and biomedical research (Korea BioData Station (K-BDS))

Oct. 24th (Fri), 10:00-11:40, 403 A+B+C

Organizer	**Kyo Bin Kang** (College of Pharmacy, Sookmyung Women's University)
Chair	**Haeyoung Jeong** (Korea Research Institute of Bioscience and Biotechnology)

S22-1	**Introduction of the Korea BioData Station (K-BDS) for sharing biological data**
10:00-10:20	**Byungwook Lee** (Korea Research Institute of Bioscience and Biotechnology)
S22-2	**KPOP: a standardized repository for open-access proteomics data**
10:20-10:40	**Seungjin Na** (Korea Basic Science Institute)
S22-3	**Discovery of subtype-specific CKD biomarkers via Korea MetAbolomics data rePository (KMAP): Toward open data sharing and reuse**
10:40-11:00	**Joo-Youn Cho** (College of Medicine, Seoul National University)
S22-4	**From compounds to data, from data to drugs: the role of the Korea Chemical Bank and the Chemical Data Curation Center**
11:00-11:20	**Nam-Chul Cho** (Korea Research Institute of Chemical Technology)
S22-5	**Optical imaging for searching anti-metastasis drugs and the role of the bioimaging data curation center (BDCC) for the Korea bioimage data repository**
11:20-11:40	**Dongmin Kang** (Department of Life Science, Ewha Womans University)

Symposium 23

Pathophysiology of Immunological Disorders

Oct. 24th (Fri), 10:00-11:40, 401 A+B

Organizer	**Yong Gu Lee (College of Pharmacy, Hanyang University)** **Yun-Hee Lee** (College of Pharmacy, Seoul National University)
Chair	**Hyungseok Seo** (College of Pharmacy, Seoul National University) **Yong Woo Jung** (College of Pharmacy, Korea University)
S23-1 **10:00-10:25**	**Programmed inflammatory cell death at the crossroads of innate immunity and metabolic disorder** **Joo-Hui Han** (College of Pharmacy, Woosuk University)
S23-2 **10:25-10:50**	**Triple-combination photothermal therapy, IFN-β mutein, and dual TIGIT/CTLA-4 inhibition to induce a potent abscopal effect** **Young Kee Shin** (Department of Molecular Medicine and Biopharmaceutical Sciences, Seoul National University)
S23-3 **10:50-11:15**	**Friends or foes? The gut microbiome's roles in cancer immunity** **Jeong-Hoon Jang** (College of Pharmacy, Daegu Catholic University)
S23-4 **11:15-11:40**	**Fam49B dampens TCR signal strength to regulate survival of positively selected thymocytes and peripheral T cells** **Chansu Park** (College of Pharmacy, Chungbuk National University)

Symposium 24

Advances in Mass Spectrometry for Pharmaceutical and Biological Research

Oct. 24th (Fri), 10:00-11:40, 401 C

Organizer & Chair	**Hye Hyun Yoo** (College of Pharmacy, Hanyang University)

S24-1	**Artificial intelligence and mass spectrometry-based proteomics**
10:00-10:25	**Eunok Paek** (College of Engineering, Hanyang University)

S24-2	**Characterization of biotherapeutics using mass spectrometry: From peptide to recombinant proteins**
10:25-10:50	**Unyong Kim** (College of Pharmacy, Chung-Ang University)

S24-3	**Applications of mass spectrometry in pharmaceutical quality control: from genotoxic impurities to extractables and leachables**
10:50-11:15	**Hyohyun Cho** (Pharma&CMC, Co., Ltd.)

S24-4	**Pharmaceutical impurity ID using 2D-LC/UV/HRAM MS system**
11:15-11:40	**Seongcheol Hong** (ThermoFisher Scientific)

Symposium 25

Designing Life Beyond Medicine: The Era of Integrated Life Sciences

Oct. 24th (Fri), 10:00-11:40, 401 D

Organizer	**Min Ji Kang** (University of Ulsan College of Medicine)
Chair	**Wondong Kim** (College of Pharmacy, Hanyang University)

S25-1	**Introduction of the BioPharmacal Society**
10:00-10:05	**Sung Won Kwon** (College of Pharmacy, Seoul National University)
S25-2	**Genome folding meets antiviral strategy: targeting g-quadruplexes across viral lifecycles**
10:05-10:30	**Moon Jung Song** (College of Life Sciences and Biotechnology, Korea University)
S25-3	**How to solve a paradox of PD-L1 blockade: protecting muscle without losing tumor control**
10:30-10:55	**Na-Young Song** (College of Dentistry, Yonsei University)
S25-4	**Enhanced drug candidate discovery using artificial intelligence and physical energy calculations**
10:55-11:20	**Juyong Lee** (College of Pharmacy, Seoul National University)
S25-5	**Historical Perspective; story of aspirin**
11:20-11:45	**Seung-Mann Paek** (College of Pharmacy, Gyeongsang National University)