

## Asahi Kasei Pharma Corporation



Asahi Kasei Pharma aims to enrich the lives of people around the world through the research and development of new drugs and pharmaceutical technologies.

To achieve the goal, we have been promoting open innovation activities worldwide. These activities include the introduction of cutting-edge technologies, partnership, and research collaboration. We are focusing on facilitating the discovery of preclinical lead compounds and improving the drug development process.

Asahi Kasei Pharma Open Innovation website:  
**[www.asahikasei-pharma.co.jp/a-compass/en/](http://www.asahikasei-pharma.co.jp/a-compass/en/)**

We look forward to collaborating with you.

## **【Areas of interest for collaboration research】**

### **New drug seeds (drug targets and drug candidates) in the core research fields of Asahi Kasei Pharma**

#### **1. Autoimmune disease**

Leveraging our track record of marketing multiple autoimmune disease therapeutics and experience of drug discovery and clinical development, we are working on the creation of innovative medicines for autoimmune diseases with high unmet medical needs (for which there is no standard treatment or existing treatments have limited efficacy). To accelerate the innovation, we are actively exploring the partners and collaborative research opportunities.

The following types of research are not eligible.

- ◇ Targeting only dermatological diseases (including cutaneous lupus)
- ◇ Targeting only ophthalmologic diseases
- ◇ Gene therapy
- ◇ Cell therapy
- ◇ Diagnostics and diagnostic technologies
- ◇ Medical devices and materials

#### **2. Chronic pain**

Leveraging our experience of drug discovery and clinical development, we are working on the creation of innovative medicines for chronic pain. To accelerate the innovation, we are actively exploring the partners and collaborative research opportunities.

The following types of research are not eligible

- ◇ Opioids and cannabinoids
- ◇ Nonsteroidal anti-inflammatory drugs (NSAIDs) alone
- ◇ Drug repositioning and drug repurposing
- ◇ Gene therapy
- ◇ Cell therapy
- ◇ Nucleic acid drugs
- ◇ Vaccines
- ◇ Diagnostics and diagnostic technologies
- ◇ Medical devices and materials

## New drug discovery and development technologies in the research fields of Asahi Kasei Pharma

We are actively exploring collaborative research opportunities on technologies and knowledge for drug discovery and development.

### 1. In vitro pain phenotype screening system

- Preferred
  - ◇ Co-culture systems of neurons and glial cells
  - ◇ Evaluation systems with established readouts involved in pain
  - ◇ High throughput systems with 96-well or 384-well format
- Out of interest
  - ◇ Differentiation technology for neurons or glial cells

### 2. Bone or calcified tissue preparation techniques for spatial transcriptome or mass spectrometry imaging (MSI) analysis

- Required
  - ◇ Proven techniques with spatial transcriptome analysis (e.g., GeoMx, Visium, single-cell spatial transcriptomics) or MSI analysis using animal or human calcified tissue
- Preferred
  - ◇ Section preparation techniques for non-decalcified frozen bone or calcified tissue
  - ◇ Section preparation techniques for decalcified formalin-fixed paraffin-embedded bone or calcified tissue
- Out of interest
  - ◇ Technologies with difficulty for application to nonclinical pharmacology studies (e.g., high cost)

### 3. Solution nuclear magnetic resonance (NMR) techniques to analyze the dynamics of low and medium molecular weight compounds in their bound state to biomolecules

- Required
  - ◇ Techniques applicable to compounds whose dissociation rate constant ( $k_{off}$ ) is too slow to use the transferred NOE
  - ◇ Techniques which do not require the introduction of fluorine atoms ( $^{19}F$ )

### 4. Non-invasive extended-release formulation technologies

- Required
  - ◇ Technologies capable of sustained release over days to weeks
- Preferred
  - ◇ Technologies with commercial or investigational drug manufacturing prospects, which utilizes excipients proven in clinical use or certified as Generally Recognized as Safe (GRAS)