# Asahi Kasei Pharma Corporation



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

To achieve these goals, we have been promoting and strengthening open innovation activities worldwide. These activities include the introduction of cuttingedge technologies, partnership formation, and research collaboration. As described below, they are focused on facilitating the discovery of preclinical lead compounds and improving the efficiency of the drug development process.

We are publicly calling for new proposals related to drug development research as part its efforts for open innovation, to promote pharmaceutical research and development through enhanced cooperation with universities, research institutes, and enterprises around the world.

The application period begins on 5:00 a.m. GMT on January 7 to 8:00 a.m. GMT on February 25, 2021.

Further information is available on Asahi Kasei Pharma's Open Innovation website: www.asahikasei-pharma.co.jp/a-compass/en/

We look forward to receiving your proposal.

# An Overview of Research Topics Sought by Asahi Kasei Pharma

• New drug seeds (drug target and drug candidate) in the core research fields of Asahi Kasei Pharma

- Neurodegenerative disease
- Autoimmune disease
- Critical care medicine
- Bone and/or Cartilage disease
- Muscle-related disease

A detailed description of each research subject can be found in the following sections.

Contact Information: You can reach our support team using the "Contact Us" link on the web site shown above.

# **Research Topics Sought by Asahi Kasei Pharma** New drug seeds in the core research fields of Asahi Kasei Pharma

# < Neurodegenerative disease>

# 1 Novel drug targets and drug candidates for neurodegenerative diseases

- Targeted indications: A neurodegenerative disease that has been designated as an intractable disease in Japan or is designated as a rare disease in the United States (excluding Alzheimer's disease and Parkinson's disease)
- Proposals with specific drug candidates (small molecules, peptides, antibodies, or proteins, etc.) are preferred.
- · New drug candidates must be in the preclinical stages of development.
- Proposals with pharmacological data obtained using translational animal models or human cells are desirable.

# <Autoimmune disease>

# 2 A drug candidate or novel concept/idea that is applicable to the treatment of autoimmune diseases

- Targeted indications: : Intractable or refractory autoimmune disease (Systemic Lupus Erythematosus, Systemic Sclerosis, Sjögren's Syndrome, etc.).
- Proposals with specific drug candidates (small molecules, peptides, antibodies, or proteins, etc.) are preferred.
- · New drug candidates must be in the preclinical stages of development.
- It is desirable that the target molecule and mechanism of action have been clarified.
- Proposals with pharmacological data obtained using disease animal models are desirable.
- Proposals that have data or ideas with superiority over existing therapies and other therapies in development are preferred.

# < Critical care medicine >

# 3 Novel drug targets and drug candidates for Critical Care

- Targeted indications: : Acute respiratory distress syndrome (ARDS), severe infection (including bacteremia, endocarditis, and severe pneumonia), and acute kidney injury (AKI).
- Gene therapies, cell therapies, and therapeutic devices shall not be considered for this program.
- New drug candidates must be in the preclinical stages of development.
- Proposals should have data explaining the drug's efficacy and mechanism of action, as well as data showing the expected drug positioning and features.
- It is desirable to have in vivo data (efficacy, ADME and toxicity).

# <Bone and/or Cartilage disease>

- 4.1 New drug targets which are expected to provide a new therapeutic approach for rare and intractable bone diseases
- Targeted indications: rare and intractable bone diseases (e.g., ossification of posterior longitudinal ligament (OPLL), fibrodysplasia ossificans progressiva (FOP), osteonecrosis, or osteogenesis imperfecta).
- Proposal must be between Lead-to-Candidate stage and IND-ready stage (drug repositioning is also acceptable).
- It is desirable to have in vivo or in vitro efficacy data.

# 4.2 New drug candidates for rare and intractable cartilage diseases

- Targeted indications: rare and intractable cartilage diseases (e.g., achondroplasia including hypochondroplasia and chondrodystrophy).
- Proposal must be between Lead-to-Candidate stage and IND-ready stage (drug repositioning is also acceptable).
- Drug target molecules should be novel targets.
- In vitro drug efficacy and in vivo drug efficacy data are preferred, although strong proposals with solid plans for generating such data may be considered.

# 4.3 New drug candidates for articular cartilage damage and degeneration

- Targeted indications: articular cartilage damage and degeneration.
- Proposal must be between Lead-to-Candidate stage and IND-ready stage (drug repositioning is also acceptable).
- Pharmaceuticals or medical materials (including microfracture and cell therapy) are desirable.
- · Local administration is preferred.
- Proposal with data suggesting safety, pharmacokinetics and efficacy in vivo is preferable.

#### <<u>Muscle-related disease></u>

#### 5 New drug targets or drug seeds in muscle-related diseases

- Target indications: Sarcopenia, Cancer cachexia, Muscle disuse atrophy, and refractory muscle diseases (e.g. muscular dystrophy, myasthenia gravis, etc.).
- Proposals with specific drug candidates (small molecules, peptides, antibodies, proteins or nucleic acid etc.) are preferred.
- · New drug candidates must be in the preclinical stages of development.
- Proposals with pharmacological data obtained using translational animal models or human cells are desirable.
- Target tissues and organs are not limited to muscle. Drug target molecules that can be therapeutics to muscle-related diseases acting on muscle even if it is secondary effect are also appropriately evaluated. However, anti-cancer drugs for cancer cachexia is out of scope.
- Drug target molecules that can increase muscle mass and muscle strength, and enhance muscle performance based on the concept of senescence inhibition/aging control, such as the removal of senescence cells or the NAD+/Sirtuin pathway activation, either of which affects to increase muscle mass/strength, or longevity-regulatory factors which potentially affect to increase in muscle mass/strength are desirable.