CAID

National Efficacy Evaluation **C**enter for the health products targeting **A**rthritis and **I**mmune **D**iseases
[T2B Infrastructure Center]

www.caid.or.kr

5017, Institute of Biomedical Industry, The Catholic University of Korea #222, Banpo-daero, Seocho-gu, Seoul 06591 Korea
caid@catholic.ac.kr

National Efficacy Evaluation

C — **C**enter for the health products targeting

A — **A**rthritis &

I — **I**mmune

D — **D**iseases

National Efficacy Evaluation Center
for the health products targeting
Arthritis and Immune Diseases

CAID

NEW CHALLENGES AND OPPORTUNITIES FOR HEALTHCARE INDUSTRY OF THE ARTHRITIS AND IMMUNE DISEASE

CAID was designated as an organization that evaluates efficacy of health products targeting arthritis and immune disease in health care/ medicine T2B (Technology to Business) project organized by Korea Health Industry Development Institute (KHIDI) under the Ministry of Health and Welfare.

Our center has pre-clinical models to evaluate efficacy of drugs for various types of arthritis and autoimmune diseases

SERVICE APPLICATION

STEP 01

Application

Submission
- Consulting
- Coordinator designation

STEP 02

Technical evaluation system

Evaluation meeting
- Working-level staff meeting
- Internal review
- Decision on service recipient
  - Technology guarantee grade
  - Technology transfer grade
  - Commercialization grade

STEP 03

Evaluation request & test plan

Evaluation request
- Submission (www.caid.or.kr)

Test plan
- Evaluation design
- Test plan design
- Review
- Approval

Contract
- Agreement on service details and outcomes

STEP 04

Effectiveness assessment

Assessment
- Test analysis
- Interim report

STEP 05

Assessment by advisory committee

Interim assessment
- Outcome analysis and evaluation
- Internal evaluation and evaluation by advisory committee

Final assessment
- Final report
- Internal evaluation and evaluation by advisory committee

STEP 06

Service delivery & customer survey

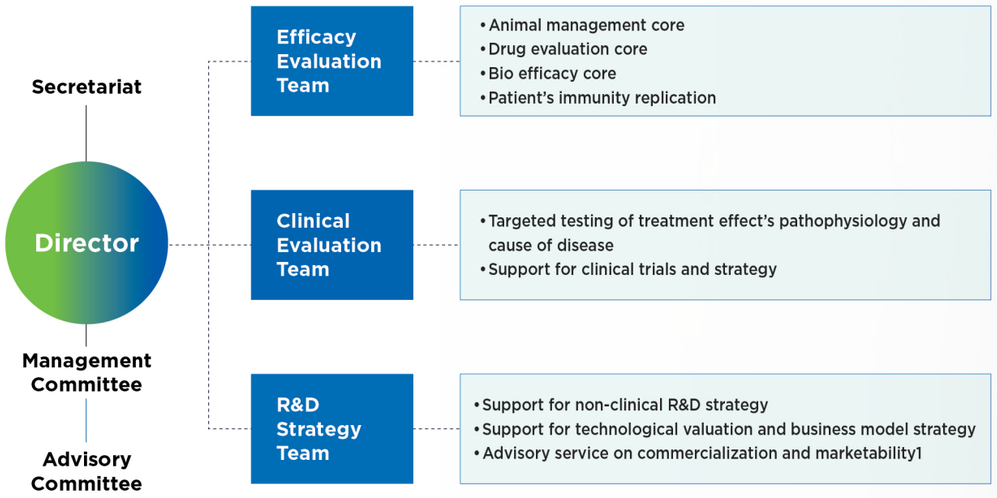
Evaluation report
- Delivery
- Internal record-keeping

Management & advice
- Advisory service on intellectual property, commercialization, marketability, clinical study

Follow-up
- Customer survey
- Service improvement

01

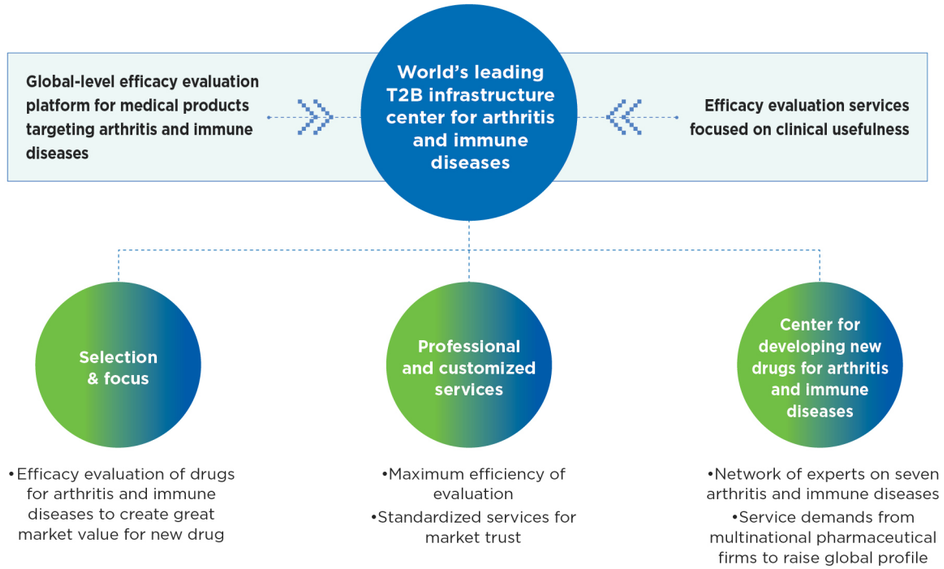
ORGANIZATION CHART



02

CAID VISION

Better quality of people's life and stronger national competitiveness through promotion and commercialization of new medical products



02

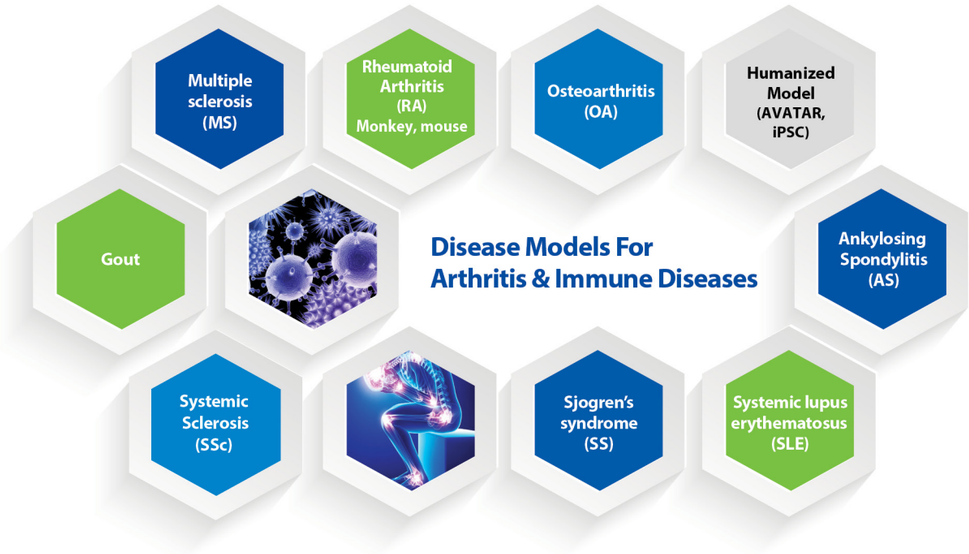
EFFICACY EVALUATION SERVICES MODELS

Preclinical animal model platform

- Rheumatoid arthritis (RA)
- Obese rheumatoid arthritis
- Monkey (Rheumatoid arthritis)
- Osteoarthritis (MIA induced OA)
- Surgically induced osteoarthritis rabbit and rat model (OA)
- Ankylosing spondylitis (AS)
- Sjogren's Syndrome (SS)
- Systemic Lupus Erythematosus (SLE)
- Gout
- Systemic sclerosis (SSc)

Humanized model platform

- AVATAR (RA, SS, SSc; Disease-derived cells or tissues are implanted into immune-deprived mice)
- Drug testing platform using disease derived iPSC (RA, OA, SSc 3D skin organoid)



Preclinical animal model platform

Rheumatoid arthritis(RA) (include Obese mice and many genetically modified mice)	• Animal model analysis (3 items) • Tissue analysis (5 items) • Imaging analysis (Micro-CT) • Cytologic analysis of spleen and lymphatic gland (4 items) • Disease derived cells analysis (in vitro, 7 items)
Rheumatoid arthritis model with cynomolgus monkey	• Animal model (3 items) • Blood and urine analysis (3 items) • Tissue analysis (3 items) • Imaging analysis (Micro-CT) • Cytologic analysis of spleen and lymphatic gland (3 items)
Osteoarthritis(OA)	• Animal model (3 items) • Tissue analysis (3 items) • Imaging analysis (Micro-CT/MRI) • Anabolic, catabolic market analysis (7 items) • Disease derived cells analysis (in vitro)
Surgically induced osteoarthritis rabbit and rat model(OA)	• Animal model (2 items) • Tissue analysis (2 items) • Imaging analysis (Micro-CT/MRI)
Ankylosing spondylitis(AS)	• Animal model (4 items) • Tissue analysis (6 items) • Imaging analysis (Micro-CT) • Cytologic analysis of spleen and lymphatic gland (4 items) • Disease derived cells analysis (in vitro, 5 items)
Sjogren's syndrome(SS)	• Animal model (4 items) • Salivary gland (7 items) • Lachrymal gland (over 20 weeks)* analysis(4 items) • Disease derived cells analysis (in vitro, 7 items)

Preclinical animal model platform(continued)

Systemic lupus erythematosus(SLE)	• Animal model (7 items) • Tissue analysis (3 items) • Cytologic analysis of spleen and lymphatic gland (3 items) • Disease derived cells analysis (in vitro, 8 items)
Gout	• Peritonitis mode (3 items) • Airpouch model (6 items) • Disease derived cells analysis (in vitro, 2 items)
Experimental autoimmune encephalomyelitis (EAE)	• Animal model (3 items) • Brain and spinal cord tissues (6 items) • Cytologic analysis of spleen and lymphatic gland (4 items) • Disease derived cells analysis (in vitro, 3 items)

Humanized model platform

AVATARA (RA-derived cells or tissues are implanted into immune-deprived mice)	• Cytometry of blood and spleen cells (2 items) • Tissue analysis (2 items) • Serum analysis
AVATARSS (SS-derived cells or tissues are implanted into immune-deprived mice)	• Cytometry of blood and spleen cells (2 items) • Tissue analysis (2 items) • Serum analysis
AVATARSSc (SSc-derived cells or tissues are implanted into immune-deprived mice)	• Pulmonary fibrosis analysis model (5 items) • Skin fibrosis analysis model (5 items)
Drug testing platform using iPSC (RA, OA, SSc)	• Patient-specific iPSC (3 items) • Differentiation of iPSC-derived osteoblast and cartilage cells (6 items) • Systemic sclerosis (3D skin organoid, 6 items)