

TAILOR-MADE PRECLINICAL RESEARCH SERVICES



Science in Action Ltd. (SIA) offers customized preclinical in-vivo and in-vitro studies to assess drug safety and efficacy. Our services cover wide range of therapeutic areas, disease models and research techniques. We are committed to highest standards of research along with optimal adjustment to your scientific needs.

We're always happy to share our knowledge and experience. For free consultation, please contact us.

IN VIVO SERVICES



At Science in Action, our goal is to help medical-oriented companies to thrive and bring new therapies to the market. We provide preclinical services and maximal support to our clients in order to promote the development of potential new therapies towards the clinical phase.

Our team of scientists has extensive research experience and expertise in the following therapeutic areas:

IMMUNOLOGY ONCOLOGY TOXICOLOGY PHARMACOKINETICS METABOLIC AND LIVER DISEASES KIDNEY DYSFUNCTION SURGICAL MODELS NEURODEGENERATIVE DISORDERS DERMATOLOGY HEMOPHILIA MUSCULAR DYSTROPHY

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IMMUNOLOGY

| Indication | In Vivo Models |
|-------------------------------------|--|
| General Models of Inflammation | Delayed Type Hypersensitivity DTH |
| Sepsis | Cecal Ligation and Puncture (CLP) Model |
| Inflammatory Bowel Disease (IBD) | DSS-Induced IBD, Acute or Chronic |
| | Oxazolone-Induced IBD |
| | T-Cell -Induced IBD IL-10-deficient mouse model of IBD |
| Arthritis | Collagen-Induced Arthritis (CIA) Adiuvant-Induced Arthritis (AIA) |
| Multiple Sclerosis | EAE-MOG Model of MS in Mice |
| | Remitting-Relapsing EAE-MBP Model in Rats |
| | Syngeneic Antigen – Induced EAE in DA rats |
| | EAE model in Biozzi ABH mice |
| Systemic Lupus Erythematosus | NZB/W F1 mouse model |
| Lung Disorders | Ovalbumin-Induced Asthma Model in Mice and Rats |
| | Allergen-Induced Asthma model |
| | Chronic Obstructive Pulmonary Disease |

ONCOLOGY

At Science in Action, we have an expertise in oncology studies in various models in rodents.

Science in Action maintains a broad panel of human and rodent cancer cell-lines that induce tumors in animals.

- Subcutaneous Tumor Models
- Orthotopic Tumor Models
- Metastatic Cancer Models
- Spontaneous Genetic Mouse Models
- Chemically Induced Cancer
- Ex Vivo Studies



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METABOLIC AND LIVER DISEASES

| Indication | In Vivo Models |
|--------------------------------|---|
| Diabetes | Non-Obese Diabetic (NOD) Mouse Model of Type I Diabetes |
| | Streptozotocin (STZ) -Induced Diabetes Type I in Mice and Rats |
| | Ob/Ob Mouse Model of Type II Diabetes |
| | Db/db Mouse Model of Type II Diabetes |
| Obesity/Fatty Liver Disease | Ob/Ob Mouse Model |
| | Diet-Induced Obesity |
| Kidney Dysfunction | 5/6 Nephrectomy in mice and rats |
| | Acute Kidney Injury (Ischemia) |
| Liver Fibrosis | TAA-induced Liver Fibrosis Model |





SURGICAL MODELS

Science in Action researchers are well experienced in multiple surgical models in rodents.

Our experience includes development of novel customized microsurgical procedures tailored to the customers' applications.

- Renal Dysfunction
- Spinal Cord Injury
- Transplantation of ALZET osmotic pumps
- Transplant grafting
- Internal Bleeding Model
- Skin Grafting
- Wound Healing
- Peripheral nerve injury and repair

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NEURODEGENERATIVE DISORDERS

Assessment of neurodegenerative disorders includes disease scoring and computerized behavioral testing.

- Amyotrophic Lateral Sclerosis (ALS)
- MPTP-Induced Model of Parkinson's Disease
- 6-OHDA Induced Model of Parkinson's Disease
- Alzheimer's Disease



DERMATOLOGY

Science in Action has vast experience and expertise in animal models of human dermal pathologies.

- Psoriasis
- Rosacea
- Skin Grafting
- Wound Healing
- Hyperpigmentation



HEMOPHILIA

Rodent models of hemophilia comprise of genetic models and animal models in which anticoagulating agents induce hemophilia.

- Warfarin Model
- F8 Mice
- F9 Mice

MUSCULAR DYSTROPHY

Genetic mouse models of muscular dystrophy are available and our scientists are highly experienced in muscle dystrophy research.

Duchenne Muscular Dystrophy DMD

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IN VITRO SERVICES



Science in Action provides full, customized in vitro research services including cell-based assays, biochemical assays and molecular studies. Assay development is our key expertise acquired during multiple years of scientific research. All of our services are tailored to the specific requirements of our client drug development programs.

CELL CULTURE CELL VIABILITY ASSAY TRANSIENT & STABLE TRANSFECTION ENZYME-LINKED IMMUNOSORBENT ASSAY (ELISA) DNA, RNA AND PROTEIN ANALYSIS IN VITRO MIGRATION AND INVASION ASSAYS IN VITRO DIFFERENTIATION ASSAYS EX-VIVO STUDIES LYMPHOCYTE ACTIVATION ASSAY FLUORESCENCE-ACTIVATED CELL SORTING (FACS)

This brochure covers most, but not all, of our capabilities. To receive full information and to discuss your research needs, please contact us directly.

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PROOF OF CONCEPT R&D

The Proof of Concept R&D arm of Science in Action aims to promote the development of newly incepted biopharmaceutical technologies. In addition to offering contract research services, Science in Action offers partnership in preclinical drug development at early proof of concept stages. To this end, we conduct research internally and in collaboration with other researchers in the areas of immunology, oncology, diabetes and more.

For more information and to explore collaboration options, please contact us.

PHILANTHROPIC DMD RESEARCH



Science in Action performs philanthropic research in an effort to develop a cure for Duchenne Muscular Dystrophy (DMD). This is a collaboration with Israeli Duchenne Parent Association, Art Biosciences Company and other collaborators. Science in Action contributes experimental know how and conducts extensive research in DMD animal models.

We are strongly oriented to promote the research efforts to cure DMD. As a philanthropic initiative, Science in Action conducts internal and collaborative research on several transgenic DMD mouse models. Various research approaches such as gene therapy, stem cells and anti-inflammatory therapy are implemented.

For more information on DMD research and collaboration options, please contact us.

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TAILOR-MADE PRECLINICAL RESEARCH SERVICES



- Complete in vivo and in vitro R&D services
- Broad range of disease models in rodents and in vitro
- Fully-equipped molecular biology laboratories
- Committed to the highest standards of research
- Proof of concept R&D
- Philanthropic research

SCIENCE IN ACTION

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