



# Integrated Preclinical Drug Discovery and Development Services

# **FOCUS Drug Discovery**

SHANGHAI MEDICILON INC.

# **COMPANY PROFILE**

From its inception in 2004, Shanghai Medicilon Inc. (STAR Market, stock code: 688202.SH) has been committed to providing comprehensive research and development (R&D) services to biopharmaceutical companies, research institutions, and any organizations working in the preclinical space, with the primary objective of supporting and accelerating pharmaceutical, biopharmaceutical and medical device R&D worldwide.



### A Comprehensive CRO for Pre-Clinical Pharmaceutical R&D

- End-to-end services and solutions covering the entire spectrum of preclinical biopharmaceutical R&D. Supporting everything from target discovery, candidate development, preclinical screening and safety through IND submission
- Focus on communication and collaboration with clients in a variety of target indication areas such as neoplasms, neurological diseases, diabetes, inflammation, etc

### State-of-the-Art Facilities

- Three R&D centers with over 794,000 ft² of lab space in Shanghai, China
- AAALAC accredited animal facilities
- GLP/GMP compliant facilities, instrumentation with FDA and NMPA regulations

### **High-Performance Teams**

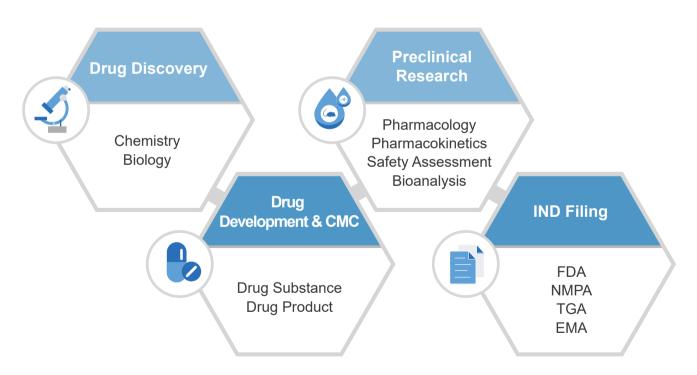
- Internationally trained scientists with Ph.D. degree and/or with 10+ years of R&D and management experience
- Timely support and consultations through one-on-one communication

### **IP Protection**

Strict internal policies and excellent historical track record



# **SERVICE SCOPE**



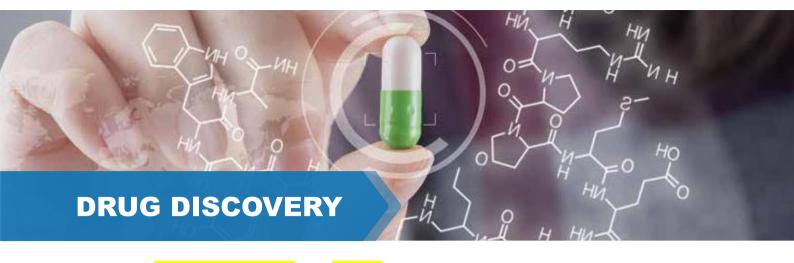


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Medicilon's Discovery Chemistry and Biology divisions have established a strong track record assisting thousands of clients worldwide with the discovery and development of small molecules, biologics as well as cell- and gene-therapies. Combining the most cutting-edge instrumentation and high-performance, experienced scientists, Medicilon has the expertise, capabilities and capacity to support projects of any size.

# **Medicilon's Advantages**

- Flexible service models, including FTE and FFS, to meet diverse needs and priorities
- Innovative technologies to meet novel R&D demands: Al-aided drug design, structure-based drug discovery (SBDD), fragment-based drug discovery (FBDD), DNA-encoded chemical library (DEL) technology, PROTAC, etc.
- Best overall value: strong expertise and capability, rapid turnaround time, full regulatory compliance
- Well-developed biology sharing service platform: 10+ years of cooperation with Shanghai Synchrotron Radiation Facility (SSRF)
- Protein free rooms, purification rooms, cell culture rooms, and BSL-2 laboratories

# **Chemistry Services**

- Structure-activity relationship (SAR)
- Computer-aided drug design (CADD)
- Synthesis of small molecule compounds or libraries
  Chemical synthesis, discovery, and structure optimization of
  - hit compounds lead compounds
- Custom synthesis
- Synthesis of standards, reference compounds, and molecular probes
- Synthesis of special reagents, intermediates, and molecular fragments
- Synthesis of impurities and metabolites
- Synthesis of stable isotope internal standards
- Synthesis of deuterated compounds
- Synthesis and resolution of chiral compounds
- Scale-up synthesis of up to kilogram-quantity



### **New Platforms**

- PROTAC
- DNA-encoded chemical library (DEL) screening
- Al-enabled drug discovery
- Bioelectronic isostere technology
- Green chemistry

# **Biology Services**

### Structural Biology

- X-ray crystallography and Cryo-EM analysis
- Protein expression and purification (prokaryotic protein, yeast protein, insect cell protein, mammalian cell protein)
- Preparation of M9 culture medium containing Se substituent

### In Vitro Biology

- Compound, CDC, ADCC cytotoxicity assay
- Gene editing and stable cell line construction
- CAR-T/CAR-NK construction and target cell killing

### **Computational Biology**

- 3D organoid-based drug screening
- High-throughput kinase, receptor-targeted agonist/antagonist screening
- Virtual screening
- FBDD services

### **Expression and Purification of Recombinant Proteins**

- Prokaryotic expression system (*E. coli*)
- Yeast protein expression system
- Insect cell protein expression system (Baculovirus)
- Mammalian cell protein expression system (Fc, Human Serum Albumin, 3xFlag, GST, 6His)

### **Protein Crystal Services**

- Protein crystal condition high throughput screening
- Protein synchrotron radiation diffraction data collection
- Protein-compound co-crystallization
  Fragment screening

### **Recombinant Kinase Preparation**

- Various expression systems: insect cells, HEK293 cells, E. coli
- Holoenzyme or kinase region
- Screening at analysis level and structure biology level
- Recombinant kinase products



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# **Service Hotline**

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