



Dalian Join King Fine Chemical Co., Ltd.

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CRO / CMO

Expert in Chemical Process and Scale-up Engineering

DALIAN JOIN KING FINE CHEMICAL CO.,LTD.

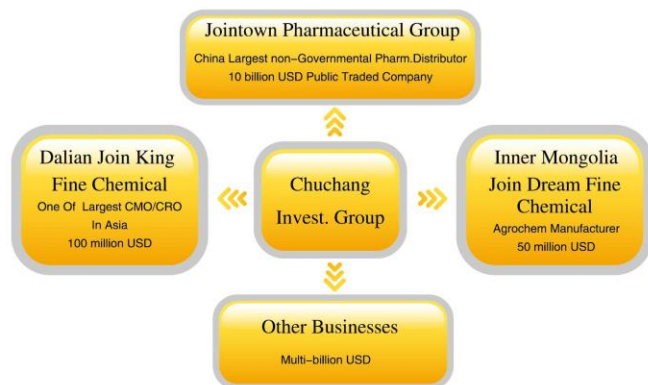


DALIAN JOIN KING FINE CHEMICAL CO.,LTD



Dalian Join King Fine Chemical Co.,Ltd.

Dalian Join King Fine Chemical Co., Ltd. is located in beautiful Liaodong Peninsula. As one of the largest CRO/CMO companies in Asia, Join King (previously Chemphy) has served pharmaceutical, fine Chemical and agrochemicals industries for 20 years. We are a member of Jointown family, the largest non-governmental owned public traded Chinese pharmaceutical channel and distribution company with 10 billion USD revenue.



Company History:

1996: Founded by Chinese Academy of Sciences: Dalian Chemphy Chemical Co., Ltd.

2003: Privatized: Dalian Chemphy Fine Chemical Co., Ltd.

2012: Acquired by Chuchang Investment Group: Dalian Join King Fine Chemical Co., Ltd.

Company Highlights:

- Founded by Chinese Academy of Sciences and now wholly owned by a multi-billion USD public traded company
- One of the best CMO/CRO for fine chemicals including pharmaceutical and agriculture chemicals. Process R&D, scale-up and manufacture.
- World class R&D Center, 60 chemists with over 15 PhDs, NMR, GC-MS, LC-MS, RC1, Corning Micro-reactor, etc.
- Over thousand MT manufacture capacity.
- Leading technology platforms including fluorination, chlorination, Grignard reaction, high pressure reaction, flow reaction, etc.
- ISO9001; ISO18000; ISO14001; SA8000



Say what we can, Do what we said, Report what we did!

Philosophy:

- Creativity-Problem solving for customers
- Quality-Our foundation of existence
- Commitment-Solid link in customer's supply chain
- Responsibility- For customers, for employee, for society

EHS:

People at Join King believe that enterprise has responsibility to the environment, to the wellbeing of human life and to the safety and health of those who manufacture or consume its products.

From R&D laboratories to the manufacture plants, from cafeteria to offices, EHS is always the top priority. Our EHS management system has been well established from our mindset to the work place, through education, training, reviews, by-laws and enforcement. No project moves forwards without green light from EHS committee. The committee has super-power over CEO on EHS issues.





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CRO and Scale-up Services:

Dalian R&D Center:

Join King owns one of the best chemical R&D centers in China. The facility occupies 55,000 square feet floor space. It consists of synthesis labs, kilo-labs, analytical center, scale-up safety evaluation lab, as well as supporting functions. There are 60 chemists and chemical engineers led by PhD level group leaders working on synthesis projects from lab to pilot scales. The center is equipped with the most up-to-date equipment. Finger print ID systems are installed for all entrances to each lab for IP protection and security. Ventilation systems are equipped with the modern air-flow control technology. The major instruments include 400 MH NMR, LC-MS, GC-MS, Coning Micro-reactor, and so on. The center also has RC1, TGA/DSC for process safety evaluation.

JK Affinity Laboratory:

JK Affinity Lab is a joint force of Affinity Research Chemicals Inc. (a USA company) and Dalian Join King Fine Chemical Co.,Ltd. We integrated expertise and strengths from both companies to form a world-class organization that provides synthesis, process development and scale-up services to global clients in fine, pharmaceutical, agrochemical and specialty chemical industries.

In Delaware, USA, Affinity employed a group of top PhD level chemists with extensive industrial experiences to help clients for the most challenge chemistries.

We provide the following CRO services:

- Contract Research/Process Development
- Custom Synthesis
- FTE
- Process Definition
- Scale-up to Kilograms and to Full Manufacture



CMO Services:

In Dalian Economy and Technology Development Zone, Join King has an over million square feet well-established manufacture site to carry out contract manufacture for our clients. The modern facility is located in a chemical industrial park. It is far away from residential area and neighbors a large petroleum refinery. Only two miles from our facility is the Dalian port, the largest ocean shipping port in Northeast China.

Highlights of Join King CMO Plant:

- Twelve standardized chemical manufacture buildings for manufacture scales up to thousands of metric tons.
- One pilot plant up to one metric ton scale.
- One multifunctional workshop up to 10 metric ton scale.
- All workshops are equipped with modern manufacture equipment and DCS control systems.
- The reactors and accessory equipment are in variety of sizes and materials of construction, including stainless steel, glass-lined, nickel-lined, titanium-lined, hastelloy-lined and PTFE-lined.
- High pressure, low and high temperature capability.
- Batch and continuous reaction systems.
- On-site wastewater bio-treatment system.



We provide the following CMO services:

- Toll manufacture: Customer provides technical package. Join King exclusively manufactures the product for the customer according to the technology package provided with continuously improvement. All technical improvement works are done before discussion and approved by the customer. Customer owns the technology.
- Contract manufacture: According to the customer request, Join King develops the technology and exclusively manufacture the product for the customer. The technology ownership is negotiable.
- Dedicated building or workshop spaces are available on request.



DALIAN JOIN KING FINE CHEMICAL CO.,LTD

Technology :

With 30% technical personnel, Join King is a highly technology oriented company. The company owns 140 patents and has built leading technology platforms.

Core Chemistries & Technologies

Chemistries

Synthesis of Molecules with Complicated Structures (up to 20 liner steps)	Asymmetric Synthesis via Chiral Auxiliary, Enzymatic Desymmetrization and Catalysis
Fluorination, Chlorination	Carbohydrate Chemistry
Grignard Reaction	Peptide Synthesis and Terminal Modification
Cyclopropanation, Diazotation	Homogeneous and Heterogeneous Catalysis
Selective Oxidation, Green Oxidation	Monomer and Polymer Synthesis
Hydrogenation	Polymer Blending and Compounding
HCN Chemistry	Isothiazolinone and Derivatives
Hydroformylation	Un-nature Amino Acids
Amination	Hydrocyanation

Technologies

Scale-up Engineering (rapid scale up from laboratory to kilo and to metric tons)	Micro Flow Reactions (Corning®Advanced-Flow™)
High Pressure Reactions (up to 10 Mpa)	Continuous Fix Bed Catalytic Process
Low Temperature Reactions (-80℃)	Film Short Path, Thin Film Distillation
High Temperature Reactions (up to 250℃)	Moisture/Air Sensitive Reactions



QA & QC :

Twenty years in cooperation with global major chemical and pharmaceutical companies with excellent track records, we stand at global highest level of standard. Join King is committed to our customers through providing high quality products and services. We are ISO 9001 certified. Our Quality watch-dog, the QA Department performs its full QA functions and responsibilities with authority to ensure the quality standards and to police the quality procedures, as well as execution of SOPs for all processes and operations.

The Quality team consists of 10% of total company employees. They are highly educated and well-trained analytical, QA and QC professionals. The QC department is equipped with state-of-the-art modern instruments.



JK Affinity Laboratory

Joint Laboratory of
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Affinity Research Chemicals Inc. is a USA company specializing in multi-step synthesis. The company occupies a 20,000sf facility including synthesis and analytical labs, as well as state-of-the-art instrument. Affinity employed a group of PhD level top chemists to help clients for the most challenge chemistries.

Join King Fine Chemical Co. Ltd. is located in Dalian, China. It was established by Chinese Academy of Sciences in 1996. Join King is an expert of chemical processing and has very strong scale-up to manufacture capability. The research center is a world-class chemical processing research and development facility equipped with modern instrument including NMR, GC-MS, LC-MS and RC1.



The Technical Team:

The team has total 50 synthesis chemists and 20 scale-up engineers. Among them, there are 15 PhD level chemists with very strong industrial experiences and western background.

The Technology and Capability:

Our chemists are well trained and have extensive experiences in multi-step synthesis and process development. The core technologies and capabilities are summarized as:

- Synthesis of molecules with complex structures (up to 20 liner steps)
- Chlorination, fluorination
- Grignard reactions
- Diazotation and cyclopropanation
- Hydrogenation
- Asymmetric synthesis via chiral auxiliary, enzymatic desymmetrization and asymmetric catalysis
- Peptide synthesis and terminal modification
- Un-nature amino acids
- HCN chemistry, hydrocyanation
- Hydroformylation
- Carbohydrate Chemistry
- High pressure, high temperature reactions
- Micro-reactors
- Continuous fix bed catalytic reactions
- Homogenous and heterogeneous catalytic reactions

Capabilities:

- Total 80 air-flow controlled fume hoods, 10 work-in hoods.
- NMR, RC1, TGA, LC-Mass, GC-Mass, Preparative LC, Corning Micro-Reactor, etc.
- Kilo-labs and pilot plant
- Multi-functional workshops and over 1000 MT manufacture capabilities.
- Variety size reactors with different materials of construction, including stainless steel, glass-lined, nickel-lined, titanium-lined, Hastelloy-lined and PTFE-lined.
- Many different size high pressure reactors.
- Continuous flow reaction systems, lab and tonnage scales.



Contact Information:

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