



### **A Premier Chemistry CRO**

Synthesizing Patient's Life, Synthesizing Own Life.

Part I

### **GENERAL INFORMATION**



#### Where We Are

Chemistry labs in Wuxi City, China;



Wuxi City Lobby

Wuxi City Labs





Wuxi City Building



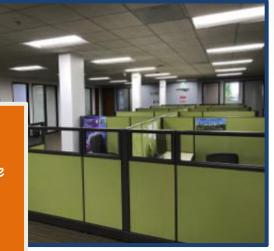


#### Where We Are

Sales Office and Inventory in San Francisco Bay Area, CA



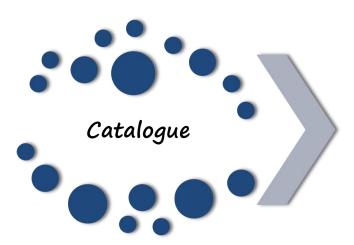
California Site Office



California Site



#### ChemShuttle By Business Model



Project Based Research



FTE Based Research

- Building Blocks
- Reference Compounds

- Custom Synthesis
- Process Development



#### Catalogue

#### **Reference Compounds**

- Angiogenesis
- Antibody-drug conjugates/ADCs Related
- Anti-infection
- Apoptosis
- Autophagy
- · Biochemical assay reagents
- Cell Cycle
- Cytoskeletal Signaling
- DNA Damage
- Dye reagent
- Endocrinology & Hormones
- Epigenetics
- GPCR & G Protein
- Immunology/Inflammation
- JAK/STAT
- MAPK
- Membrane Transporter/Ion Channel
- Metabolism

#### **Building Blocks**

- Amino acids
- Alicyclics
- Alkyls
- Aryls
- Boronic Acids (Esters)
- Fluorinated
- Heterocyclics
- Others





Chemshuttle

ChemShuttle

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Articles

About 420 results (0.02 sec)

#### Assessing the risk of salt disproportionation using crystal structure and surface topography analysis

MA Patel, S Luthra, SL Shamblin, KK Arora... - Crystal Growth & ..., 2018 - ACS Publications ... Page 6. 6 (SORT) were obtained from ChemShuttle (Hayward, CA), while atazanavir

#### The recent progress of isoxazole in medicinal chemistry

J Zhu, J Mo, H Lin, Y Chen, H Sun - Bioorganic & medicinal chemistry, 2018 - Elsevier

... 9, PH12017500530 (A1) 85, 7-Aug-17, Nat Cancer Center; Daiichi Sankyo Co Ltd, Isoxazole derivative as mutant isocitrate dehydrogenase 1 inhibitor. 10, CN107011280 (A) 86, 4-Aug-17, Chemshuttle Inc, Preparation method of 7-bromo-6-chlorobenzo[D]isoxazole ...

DD Cited by 2 Related articles All 3 versions

aturated solutions of

18 - Elsevier

... 2. Materials and methods. Ritonavir and lopinavir were purchased from ChemShuttle (Union City, CA). The fluorescence dye, 6-propionyl-2-dimethylaminonaphthalene

#### Tailoring supersaturation from amorphous solid dispersions

N Li, LS Taylor - Journal of Controlled Release, 2018 - Elsevier

... Fig. 1. Chemical structure of LPV and polymers. 2. Materials and methods. 2.1. Materials. Lopinavir was purchased from Chemshuttle (Wuxi, China). HPMCAS (HF grade) and HPMCP polymers were obtained from Shin-Etsu (Tokyo, Japan) ...

innel gating

☆ ワワ Cited by 3 Related articles All 4 versions

#### and Dissolution

Phase Behavior of R ... KCl, 1 CaCl2, 1 MgCl2, 5 HEPES; pH was adjusted to 7.6 with NaOH. RPR-260243 (ChemShuttle Wuxi, China) was dissolved in DMSO to make a 10 mM stock solution and final drug concentrations (1 to 50  $\mu$ M) were obtained by dilution of the stock solution with ...

HS Purohit, LS Taylor - Pha ... ASD dissolution. Materia

☆ ワワ Cited by 8 Related articles All 7 versions

ChemShuttle (Hayward, CA). Pyrene, nile red, lodine and potassium iodide and were purchased from Sigma Aldrich Co. (St. Louis, MO). Concentrated ...

☆ ワワ Cited by 3 Related articles All 3 versions



#### Project Based Research





To us, science is personal.



#### FTE Based Research



\*We strive to provide ultimate protection for our client's intellectual properties and have enforced stringent requirement on IP protection.

#### Client always No. 1.

Visiting US

clients



Clients from Europe auditing on site



Clients from US auditing on site



Project report and trouble shooting







We care about what our clients think about us.

"Great job!"

- B. Roth

•"I would definitely like to use your services again in the future!"

- D. Burdick (2)

 "Quality of service and final report has been excellent!"

- J. Rudolph •"You are the man!"

- S. Patel

 "Nice job with the timely synthesis and high quality material."

– K. Robarge





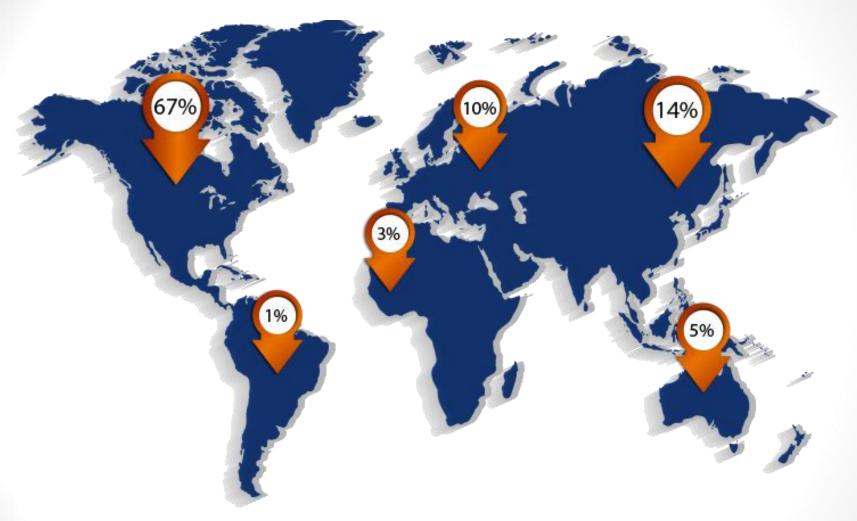
#### 50+ Fume hoods for synthesis from mg to

kg.





#### 600+ Global clients



- Our clients include 9 of the 10 largest pharma/biotech companies in the world.
- 2017 sales percentage by region (approximate value).



#### 5,000+ Projects accomplished.

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#### 10,000+ Square feet research facility.











Part II

# **EXAMPLE PROJECTS**



### Synthesis Examples

- Multi-step synthesis
- ·Library projects
- ·Kilo projects

Note: None of the examples is proprietary.



### Multi-step Synthesis Example 1 (14 steps)



### Multi-step Synthesis Example 2 (11+9 steps)



## Multi-step Synthesis Example 3 (10+2 steps)



### Synthesis Examples

- Multi-step synthesis
- ·Library projects
- ·Kilo projects

Note: None of the examples is proprietary.



## Library Projects Example 1



# Confidentia

### Library Projects Example 2



### Library Projects Example 3



### Synthesis Examples

- Multi-step synthesis
- ·Library projects
- Kilo projects

Note: None of the examples is proprietary.



### Kilo Projects Example 1 (40 kg, 98%)

Pyridine, 
$$CH_2Cl_2$$

Pyridine,  $CH_2Cl_2$ 



### Kilo Projects Example 2 (5 kg)

Low temperature

**High pressure** 



# Confidential

## Kilo Projects Example 3 (5 kg)



# Kilo Projects Example 4 (1 kg)

Fuming HNO<sub>3</sub>
H<sub>2</sub>SO<sub>4</sub>, -5~50°C

NBS, BPO
DCE, reflux

$$H_2O$$
, dioxane
reflux, 108h
 $H_2O$ , dioxane
 $H_2O$ , dioxane



# Kilo Projects Example 5 (3 kg)



# Thanks!





