



# **Steroid Chemistry**

WuXi AppTec's steroid chemistry team supports you across all stages, from discovery through development and manufacturing.

15+ years' experience

100+ dedicated chemists

10000+ steroid compounds synthesized

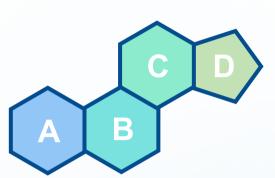
### **Steroid Chemistry Capabilities**

#### ► Hit to Lead Support

- New structure synthesis
- New chemistry development
- · Focused library generation

#### **▶ Lead Optimization Support**

- Fast production
- Route development
- Isotope labelling
- Absolute structure determination

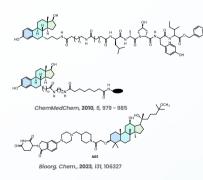


#### ▶ Drug Candidate Support

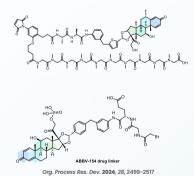
- Large scale synthesis
- Impurity synthesis
- Metabolite synthesis
- Process development

# **New Modalities Conjugated with Steroid**

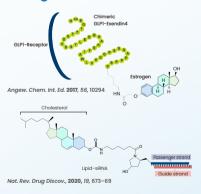
#### **▶ PROTAC**



#### **▶** ADC



#### **▶** Oligonucleotide



"Steroidal molecules are preferred for their rigidness and good ability to penetrate biological membranes. Slight alteration in the basic ring structure results in the formation of steroidal derivatives with a wide range of therapeutic activities. Steroids are not only active as such, conjugating them with various biologically active moieties results in increased lipophilicity, stability, and target specificity with decreased adverse effects.

> A Comprehensive Review on Steroidal Bioconjugates as Promising Leads in Drug Discovery ACS Bio Med Chem Au 2022, 2, 340-369

Contact us



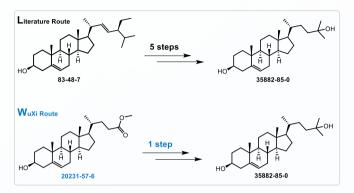




# **Research Chemistry Services**

# **Steroid Capabilities**

- 20+ chiral methods to build chiral center on steroid
- Strong steroid chemistry background enables efficient synthesis & delivery



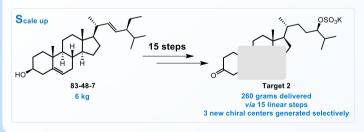
Steps were reduced by 83%

Timeline was reduced by 63%

- 130+ steroid starting materials in stock
- Selected examples showed below

## Scale up & Process Development

Over 15 years of steroid chemistry experience enables earlier stage process development and quicker scale up.



# Process Developing Orignal route in patent • 7 total steps • 24% overall yield • poor selectivity and cannot be reproduced • reaction site • reaction site • increased overall yield to 61% • reduced cycle time to about 4 days from 14 days for 100 g of product

# **Platforms Enhancing Steroid Chemistry Capabilities**

- Core Analytical Services (CAS)
- Kilo Lab & Process Safety Assessment
- Reaction Conditions Screening Recrystallization Platform
- Flow Chemistry
- Electrochemistry
- Photoredox
- WuXi LabNetwork

**Disclaimer:** This flyer is solely for discussion and informational purposes. It does not constitute an offer to provide the compounds mentioned. Any order placed will be subject to a thorough IP risk assessment. We will only accept orders for synthesis services if it is determined that no third-party intellectual property rights are infringed.