



Johnson Matthey Pharma Services

CASE STUDY

Utilizing Johnson Matthey catalyst technology to manufacture a difficult-to-source starting material

Summary

A complex starting material for a kg-scale GMP synthesis was prohibitively expensive and hard to source. An alternative route employing catalytic carbonylation was developed and performed on multi-kg scale to supply material.

Approach

- Collaboration developed internally with JM CCT.
- Series of readily available, inexpensive starting material (SM) precursors was screened for conversion via JM catalytic carbonylation technology; Pure regioisomer was obtained.
- Process was identified and successfully scaled to 5 -10 kg range.
- Process was applied to additional scaffolds for other clinical candidates.

Results

- Avoided severe cost and shortage of SM by JM catalytic alternative. General application to SM scaffolds. Cut starting material costs and project labor by 50% (\$100,000's).
- Allowed schedule for GMP batch and clinical trial initiation to be met.