

Introduction

Emerging biotech companies require fast, flexible and responsive project partners to ensure their projects are delivered on time and on budget. Apex Molecular has a proven track record in delivering making us the partner of choice for chemistry services in Discovery Projects.



The Challenge

A UK virtual Pharmaceutical company chose Apex Molecular as their chemistry partner for their discovery project. They required the multi-step synthesis of their lead compound under a tight timeline for advanced testing and to exemplify patent filings. The project required scale up from small milligrams to 10 g and the existing process needed improving to ensure the delivery of the target as the compound had only been produced in very low yields — *ca.* 4%, with purification by RP HPLC.

Solution & Outcome

The project included optimisation of two key reactions; within this alternative reaction conditions were identified and scaled up to approx. 20 g scale. This resulted in an increased overall yield from 4% to 42% with the product isolated by crystallisation. This allowed the rapid scale up of the synthesis to deliver approx. 20g in 4 weeks and also provided the client with a new scalable process suitable for further scale up development, whilst the new route also offered a strengthened IP position.