"AMG 319 Process Development"

Abstract. The process development of an investigational drug will be examined from the discovery synthesis to a mid-stage, multi-kilogram process. Developing a scaleable route requires the evaluation of chemistry for the purpose of improving yield, safety, reproducibility, and cost. Towards this end, a number of different chemistries were examined, including a Vilsmeier-Haak quinolinone synthesis, Negishi coupling, selective Friedlander cyclization, and oxime hydrogenation, several of which resulted in separate scientific publications for the process team. The result of this work was the transformation of the discovery route into a scaleable 5-step chiral process with a 47% overall yield.