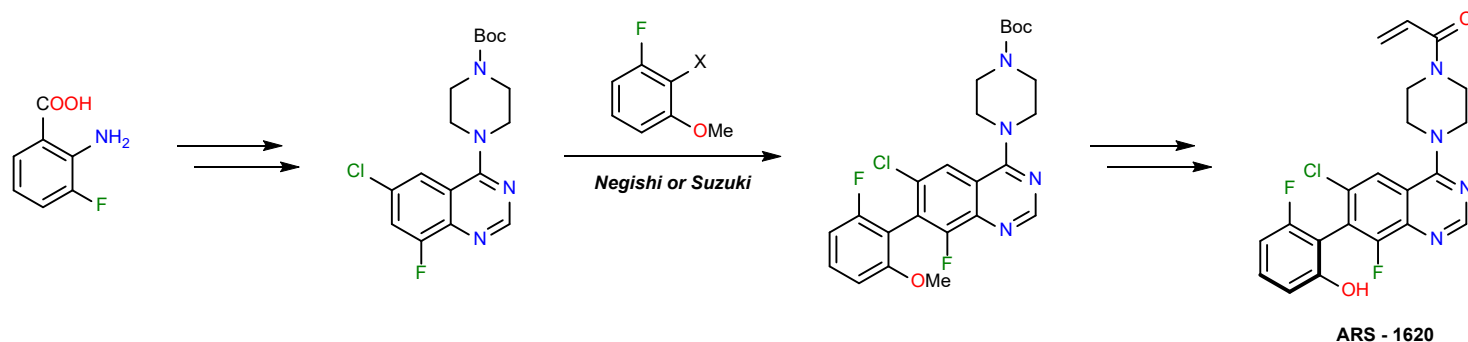


- ARS-2102 is an antitumor drug candidate.
- It covalently inhibit oncogene KRAS, G12C is one of its mutation for multiple cancer types
- Structure include an atropisomeric biaryl bond, hard to synthesis with asymmetric cross-coupling

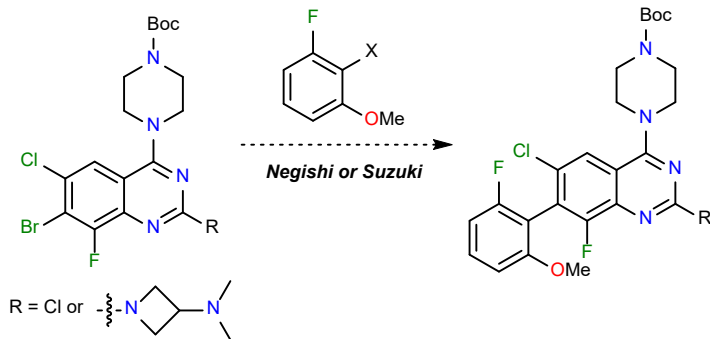
Ren, P. Deng, X. *Org. Process Res. Dev.* **2023**, 27, 1, 206. <https://doi.org/10.1021/acs.oprd.2c00335>

Nikitidis, G. Carlsson, A-C. Karlsson, S. *Org. Process Res. Dev.* **2022**, 26, 710. <https://doi.org/10.1021/acs.oprd.1c00179>

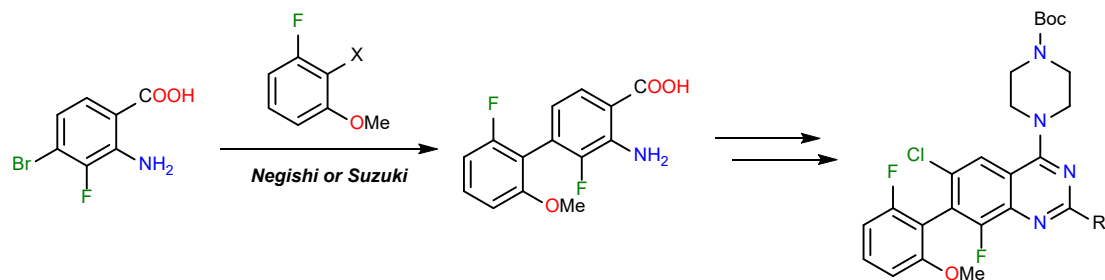
## Previous synthesis of ARS-1620 with late cross-coupling



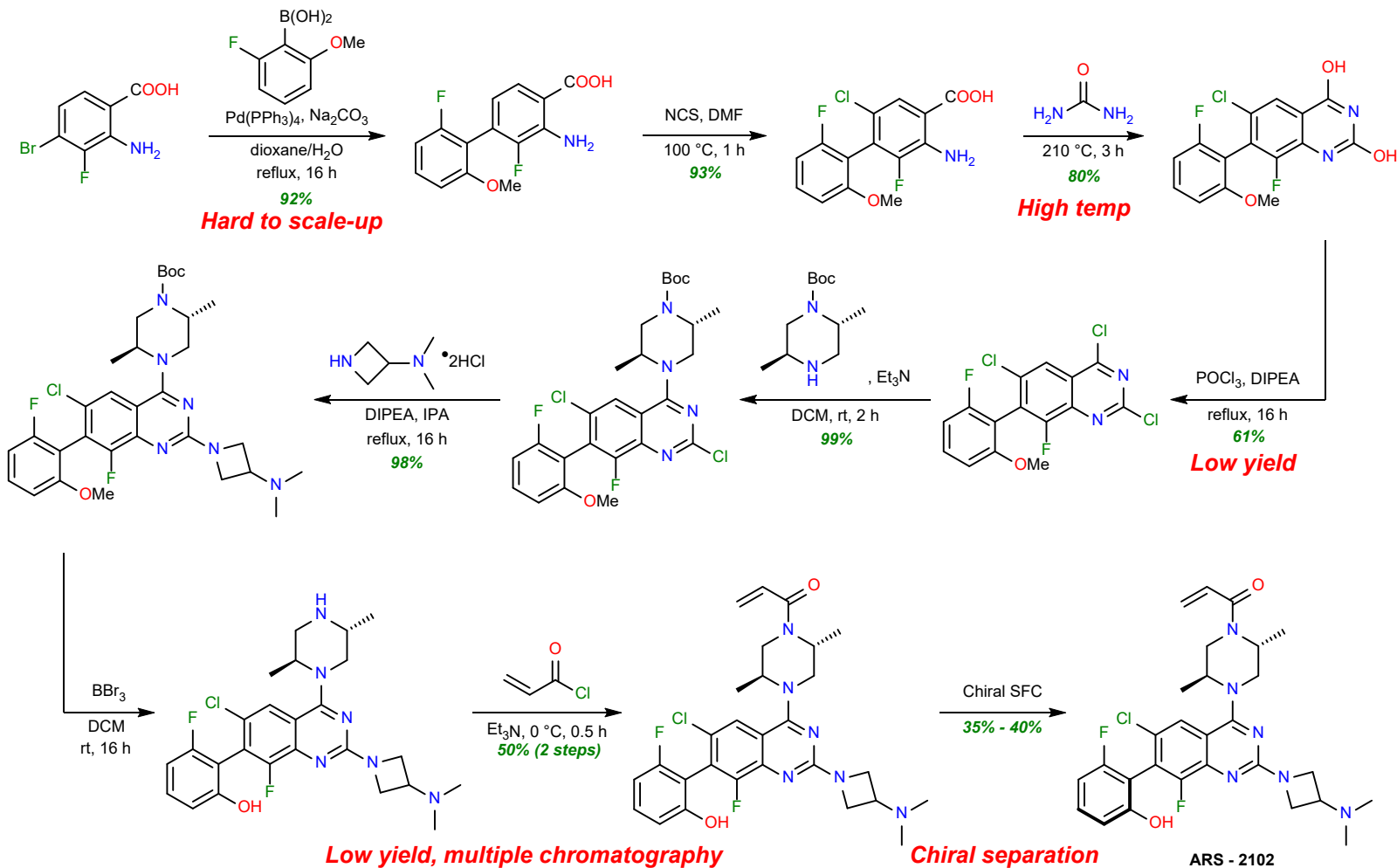
## Failure on ARS-2102



## Early cross-coupling



## Initial synthesis with early cross-coupling



## Optimized chromatography-free kilogram-scale synthesis

