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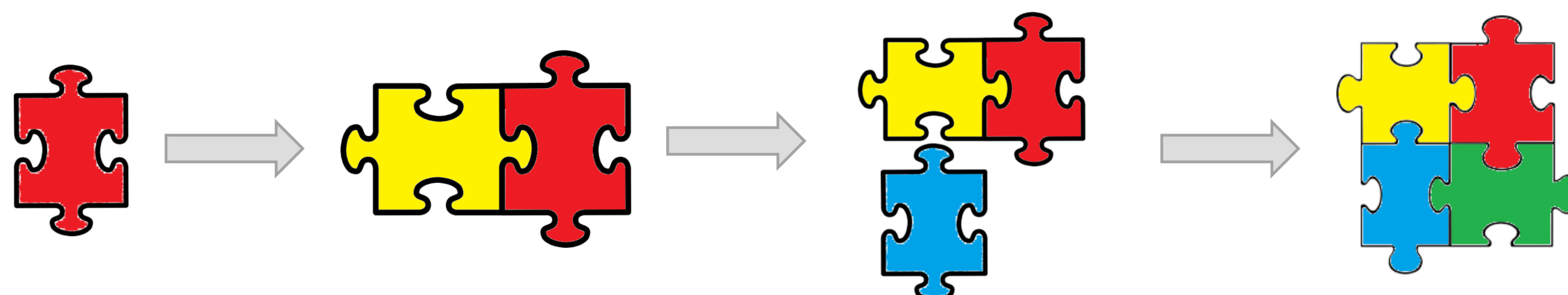
1 Introduction

Multicomponent reaction chemistry (MCR) allows quick access to a large diversity of scaffolds by combining simple building blocks [1].

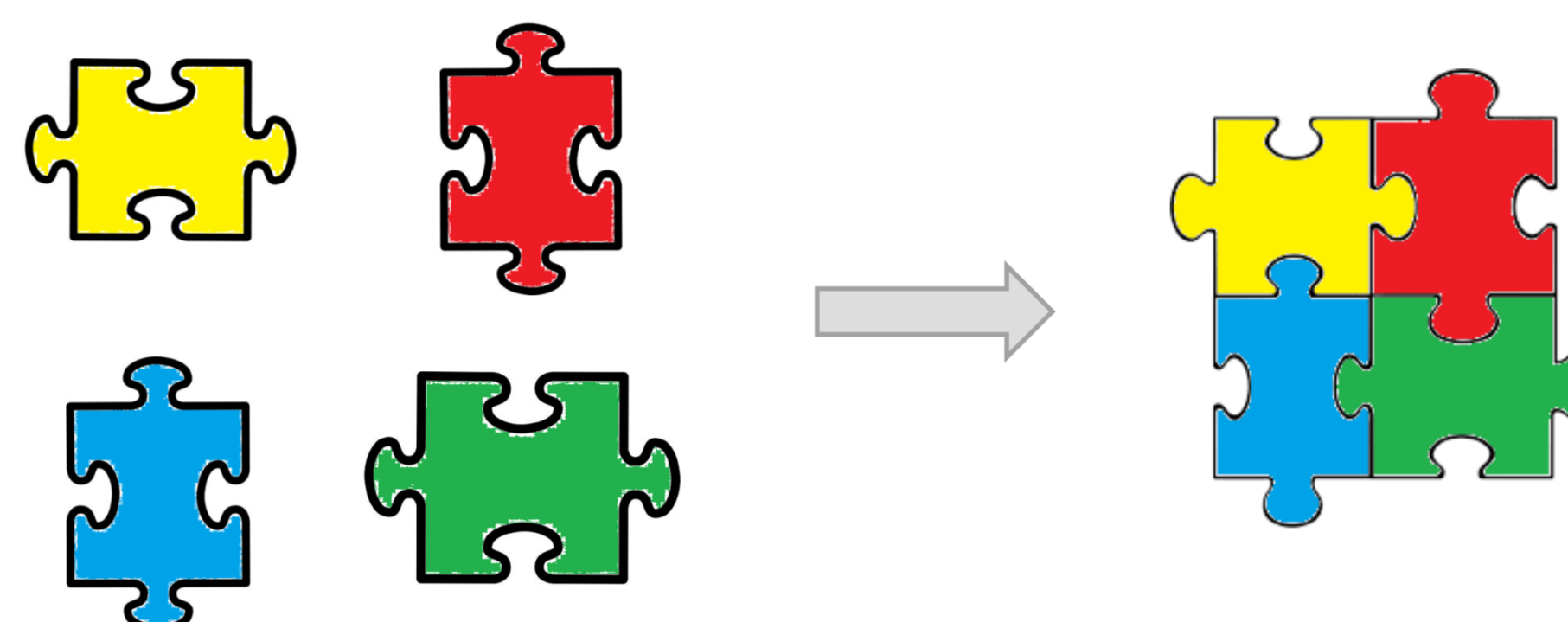


Building blocks

Classic synthetic route



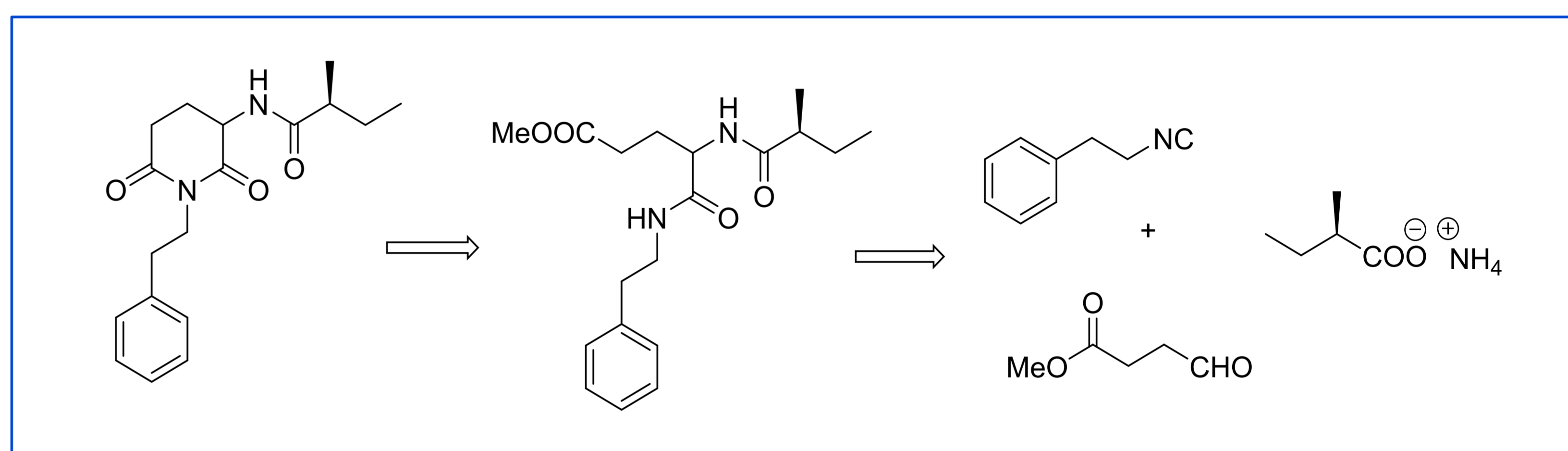
MCR chemistry



2 Aim

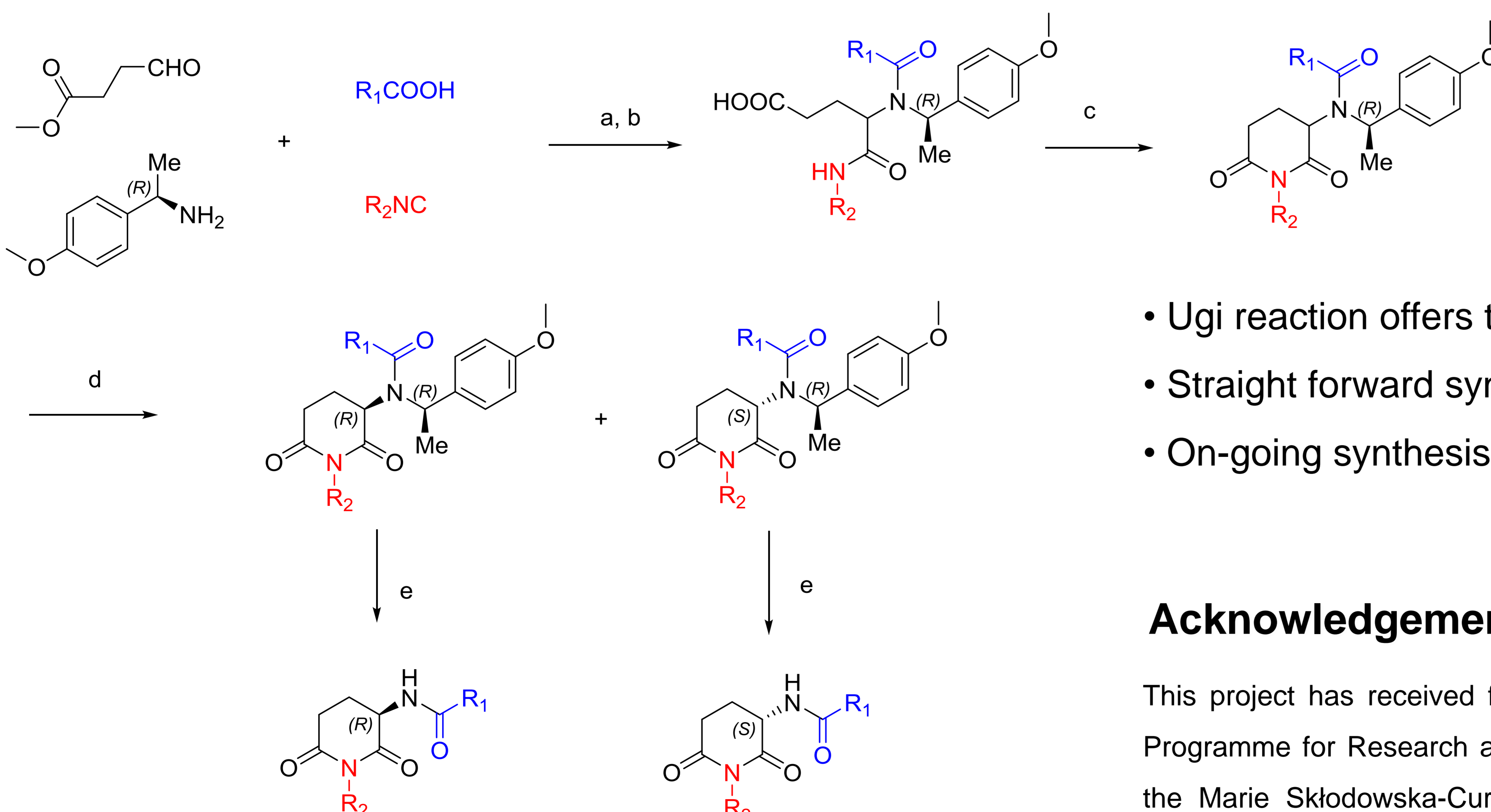
- Synthesis of Julocrotine (glutarimide alkaloid) via MCR chemistry
- Reported *in vitro* anti-proliferative activity against promastigote and amastigote forms of *Leishmania amazonensis* [2]
- Target on a molecular level remains unknown

Retrosynthesis



3 Results

Synthetic route



- Ugi reaction offers two points of variation
- Straight forward synthesis of derivatives
- On-going synthesis of 4 more glutarimide alkaloids

Acknowledgement

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References

- [1] Dömling A, Wang W, Wang K, Chemistry and biology of multicomponent reactions. *Chem. Rev.* **2012**, 112(6), 3083-3135
- [2] Guimarães LR, Rodrigues AP, Marinho PS, Muller AH, Guilhon GM, Santos LS, do Nascimento JL, Siva EO, Activity of the julocrotine, a glutarimide alkaloid from *Croton pullei* var. *glabrior*, on *Leishmania (L.) amazonensis*, *Parasitol. Res.* **2010**, 107, 1075-1081