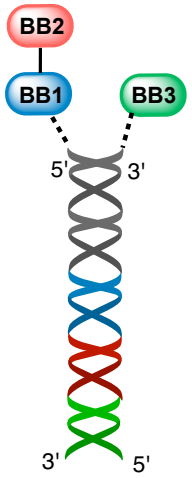
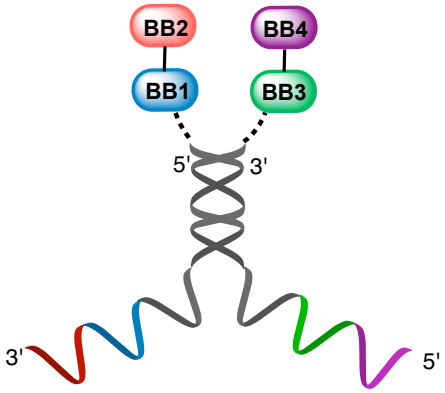
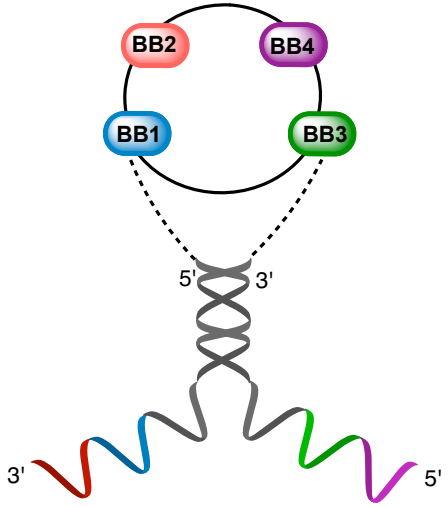
Project 2: Encoded Self-Assembled Chemical (ESAC) Libraries for Macrocycles



ESAC 2+1



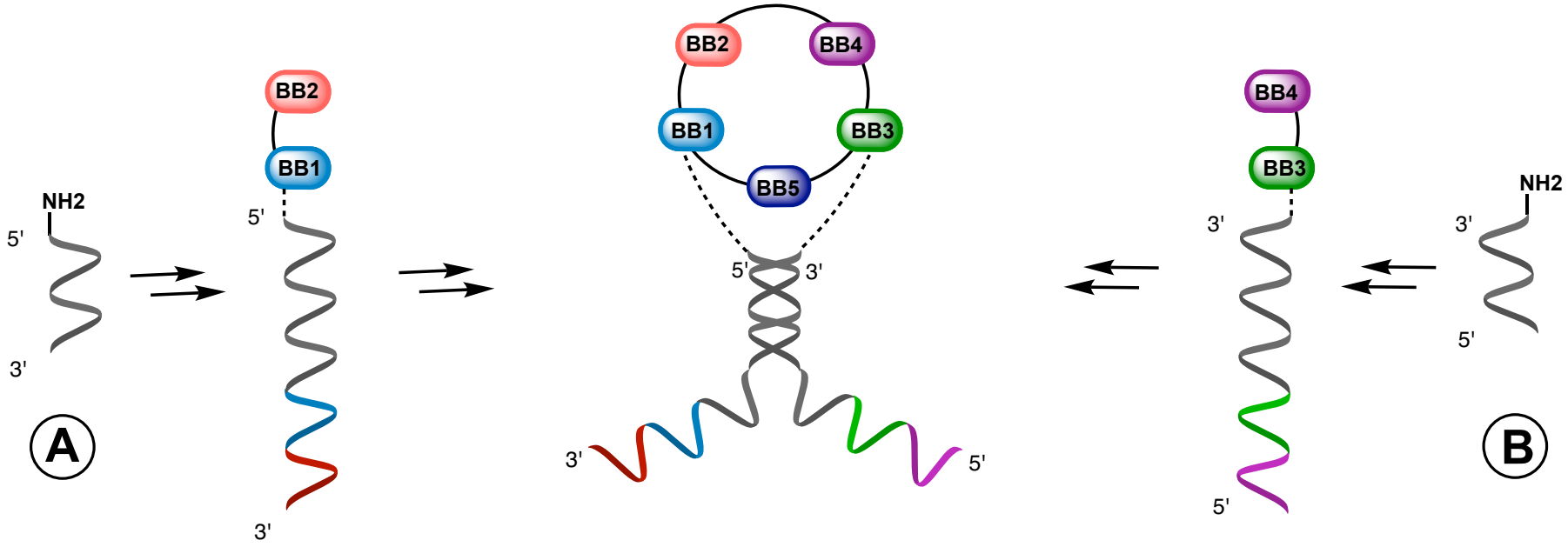
Large Encoding Design (LED)



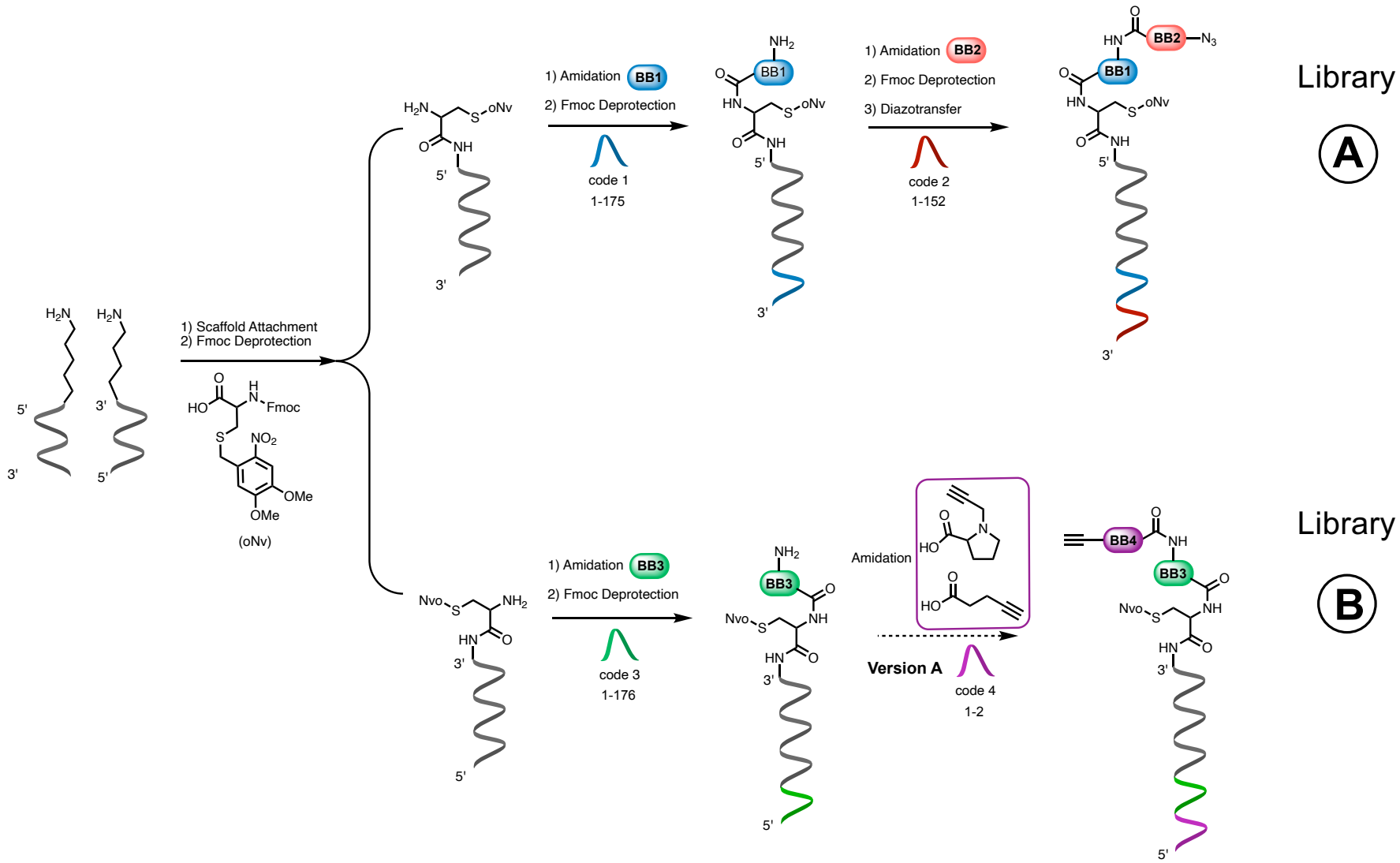
LED Linked

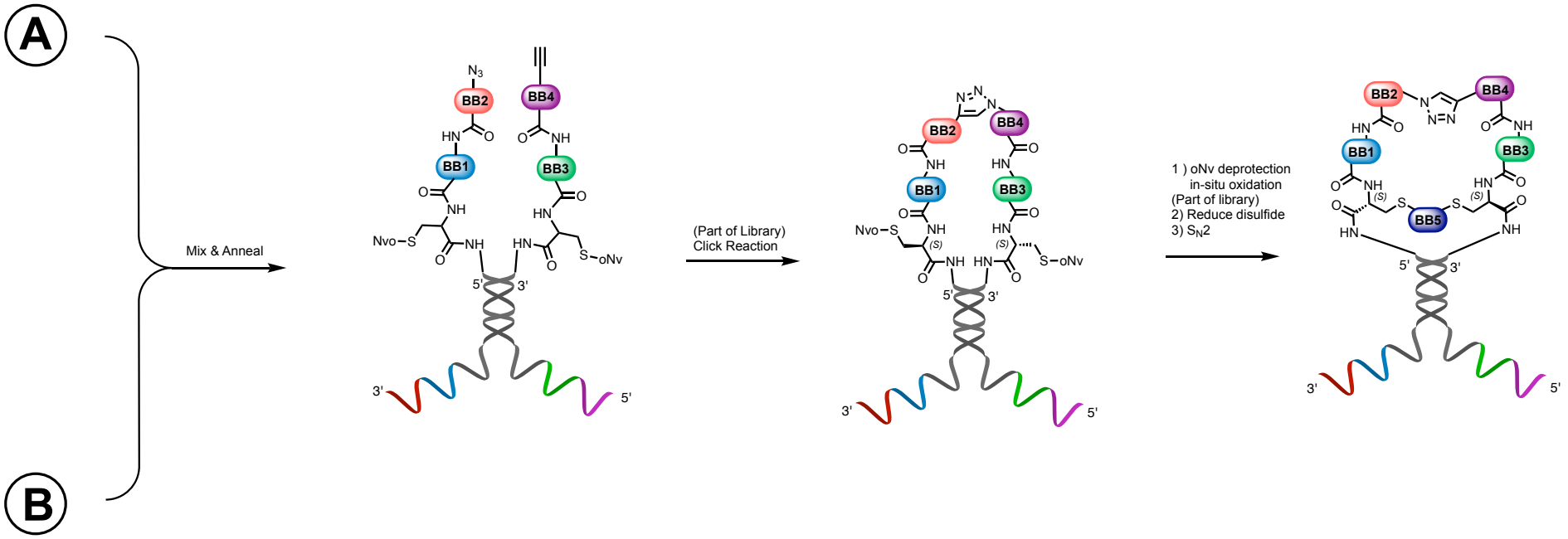
Plais, L., et al. (2022). Chemical Science **13**(4): 967-974.
Bassi, G., et al. (2020) Advanced Science **7**(22): 2001970.

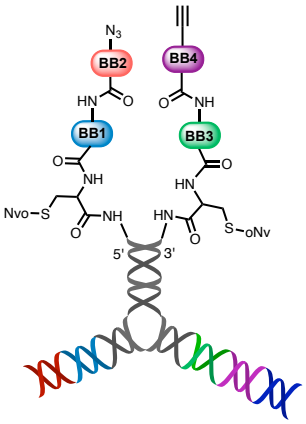
Project 2: Macrocyclic Peptide ESAC



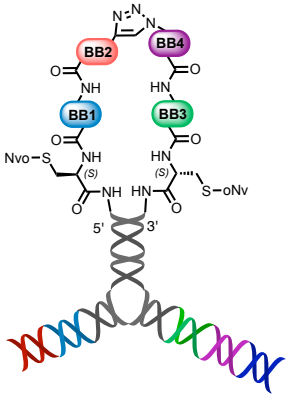
- ✓ High quality macrocyclic compounds
- ✓ Utilize novel Large Encoding Design


1) Scaffold Attachment
2) Fmoc Deprotection
(oNv)
1) Amidation BB1
2) Fmoc Deprotection
code 1
1-175
1) Amidation BB2
2) Fmoc Deprotection
3) Diazotransfer
code 2
1-152
Library
A
1) Amidation BB3
2) Fmoc Deprotection
code 3
1-176
Amidation
Version A
code 4
1-2
Library
B

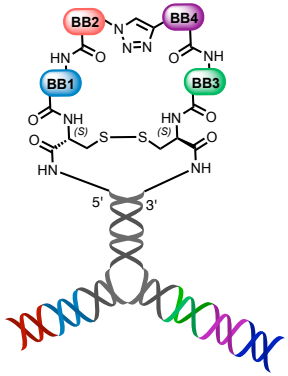

A
B
Mix & Anneal
(Part of Library)
Click Reaction
1) oNv deprotection
in-situ oxidation
(Part of library)
2) Reduce disulfide
3) SN2
BB1
BB2
BB3
BB4
BB5
Nvo
oNv
5'
3'



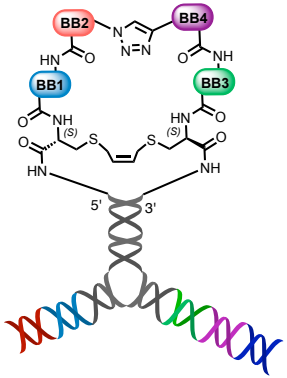
Version 1



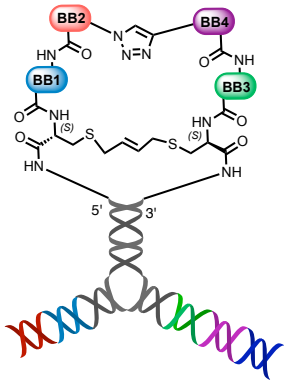
Version 2



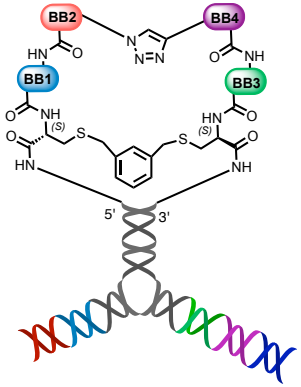
Version 3



Version 4



Version 5



Version 6

BB1	175 Amino acids
BB2	152 Amino acids
BB3	176 Amino acids
BB4	2 Alkynes
BB5	6 Cyclization versions

Acknowledgements

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