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IECB AUDITORIUM

Bordeaux Symposium on Foldamers

5th ed.

Plenary Speakers



Donald Hilvert

(ETH Zürich, Switzerland)

Hiroshi Sugiyama

(Kyoto Univ., Japan)

Derek Woolfson

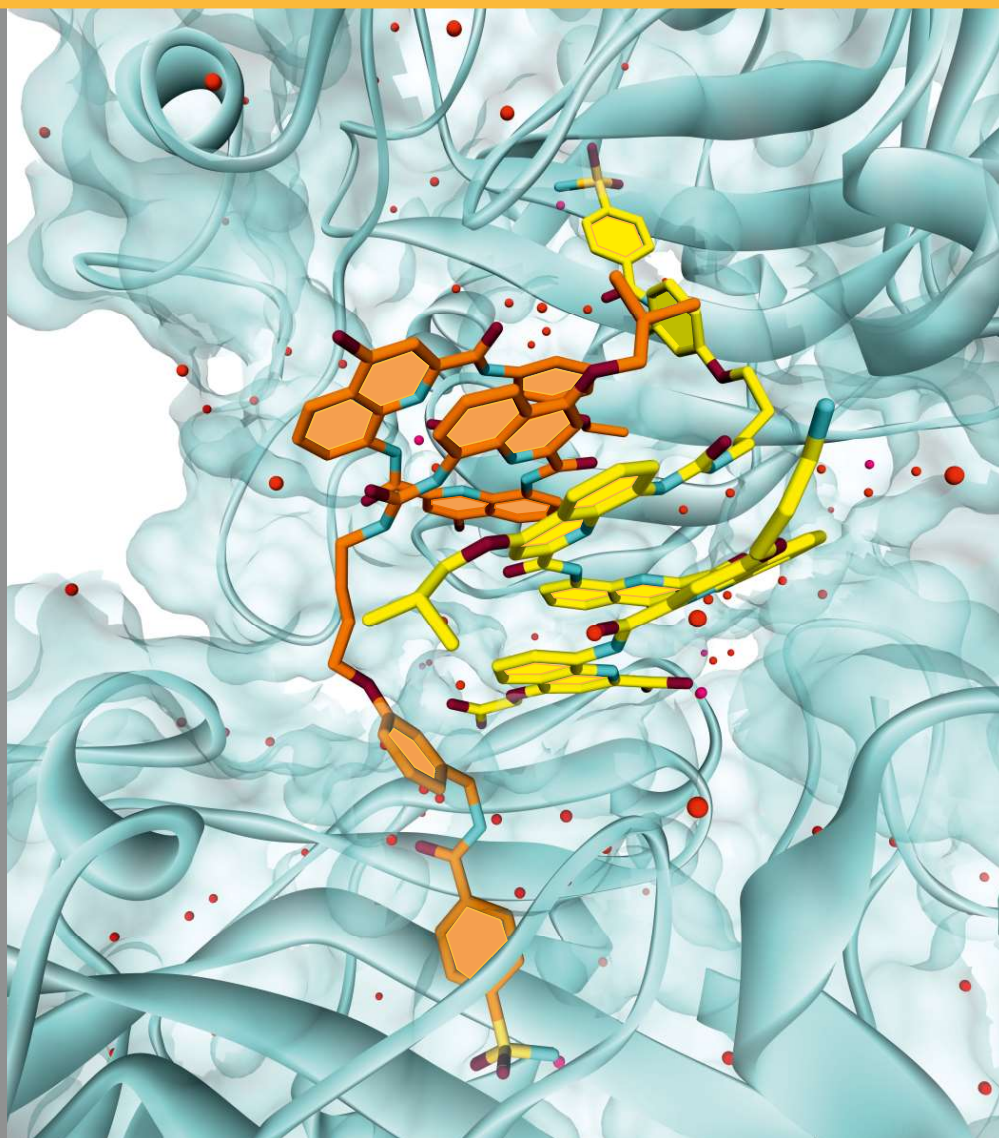
(Univ. Bristol, UK)

Eiji Yashima

(Nagoya Univ., Japan)

Ronald Zuckermann

(Lawrence Berkeley National
Laboratory, USA)



Program and Abstract Book

<http://www.iecb.u-bordeaux.fr/foldamers2016>

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Synthesis of deuterated heterocyclic foldamer building blocks

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Based on the principle of Isotope Coded Protein Labeling ^[1], the construction of foldamers using different stable isotope labeled building blocks in combination with powerful mass spectrometric methods for the identification and analysis of isotope coded foldamer sequences might enable the quick screening of foldamer mixtures against biological targets. Herein we report the first significant step of this ongoing research, the novel syntheses of isotopically labeled heterocyclic foldamer building blocks.^[2] The presented syntheses are based on commercially available starting materials and heavy water as a convenient deuterium source. The reported mild reaction conditions provided high and selective deuterium incorporation without significant erosion throughout the multistep syntheses. Our research proved that the reactions can be conveniently carried out even on multigram scale, providing sufficient starting material for the solid phase synthesis and study of labeled foldamers.

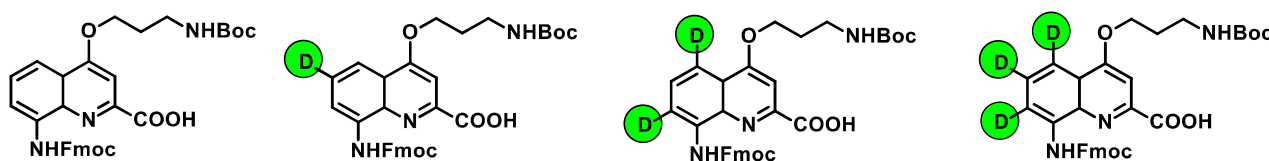


Figure 1. D₀-D₃ substituted model foldamer building blocks

References

- [1] J. Kellermann, F. Lottspeich, *Methods Mol Biol.* **2012**, 893, 143.
- [2] E. R. Gillies, F. Deiss, C. Staedel, J. Schmitter, I. Huc, *Angew. Chem. Int. Ed.* **2007**, 46, 4081.