

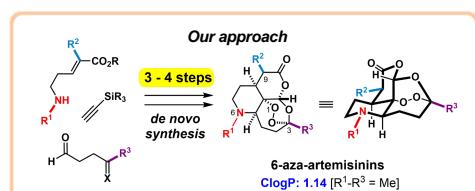
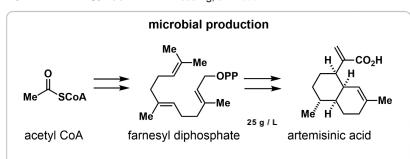
アザ-アルテミシニン類の設計・短段階合成 両親媒性中分子の自己組織化による機能創出

(東大院理) 大栗博毅 Hiroki Oguri



Towards artificial production of artemisinin-based drugs¹⁻⁵

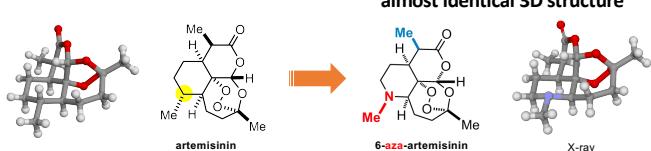
synthetic biology approach Keasling, J. D. et al.



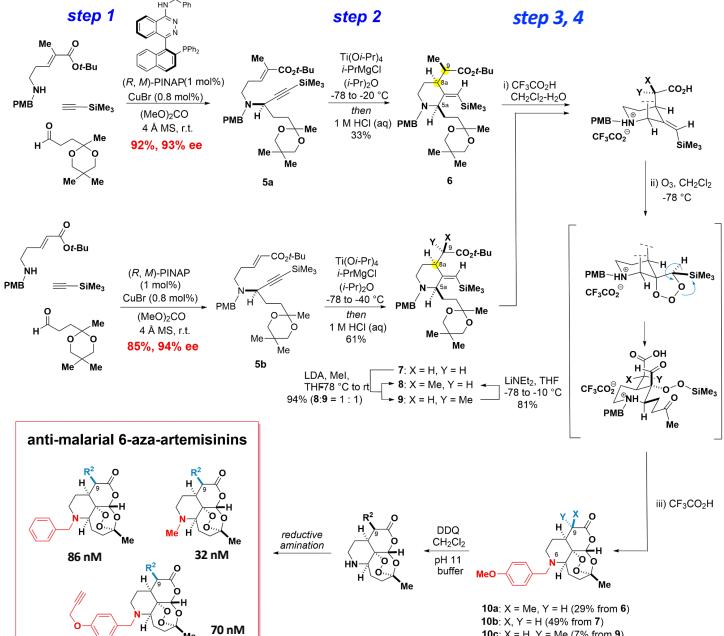
semi-synthesis 2 steps

6 steps from artemisinic acid

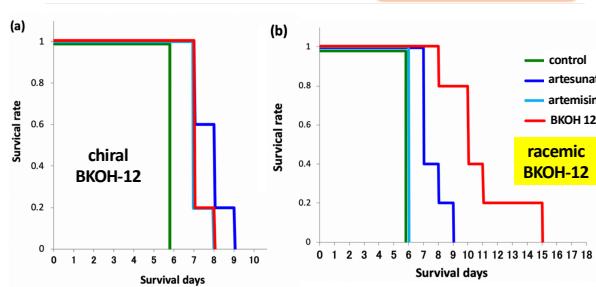
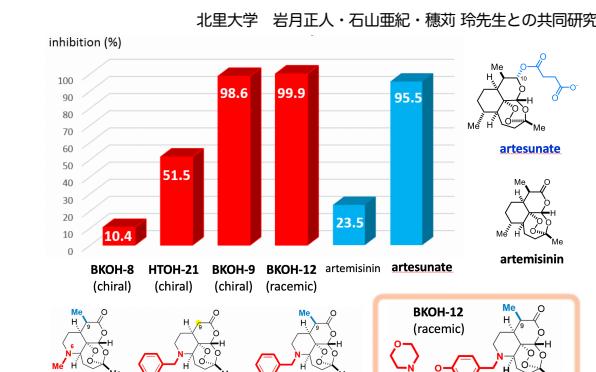
almost identical 3D structure



Catalytic asymmetric synthesis in 4 steps⁶⁻⁸

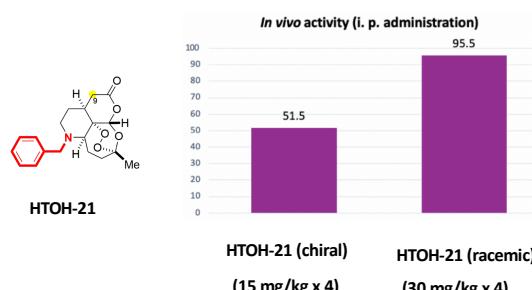


ラセミ体が光学活性体よりも強力な *in vivo* 治療効果を発現!?

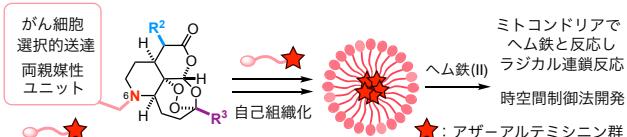


intraperitoneal administration of chiral 6-aza-artemisinin (BKOH-12: 15 mg/kg × 4), artesunate (15 mg/kg × 4) and artemisinin (15 mg/kg × 4) against rodent malaria *P. berghei* N strain

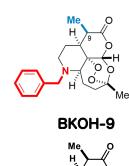
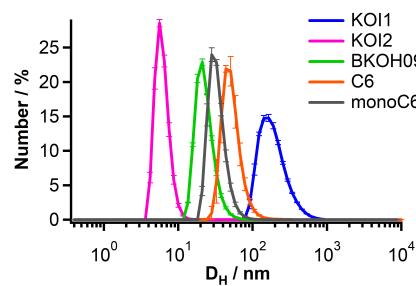
9位デスメチル型誘導体でも同様の傾向



自己集合性アザ-アルテミシニン群の設計と合成¹⁰

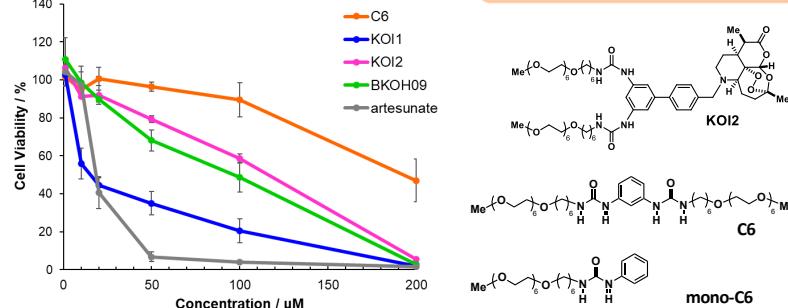


◆動的光散乱 (DLS) 測定



◆HeLa細胞増殖阻害活性

がん研究会 清宮啓之先生らとの共同研究



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