

an idea to discuss

- design of zinc finger nuclease for specific DNA target sequence¹
 - purification by phage display² (high-throughput screening)
- site-specific integration of viral DNA
 - guided by interaction between zinc finger nuclease (ZNF) and DNA
 - ZNF fused to capsid structural protein
- inserted synthetic promotor³ could normalize gene expression
 - therapeutic approach for various diseases
 - connected with abnormal gene activity (genomics, modelling)

references

- [1] Carroll, D. et. al., Design, construction and in vitro testing of zinc finger nucleases. *Nat Protoc* 1 (3), 1329-1341 (2006).
- [2] Bratkovic, T., Progress in phage display: evolution of the technique and its applications. *Cell Mol Life Sci* (2009).
- [3] HEARTBEAT, iGEM Team Heidelberg 09

facts to consider

- required S2 lab (capacity at dkfz)
- work with viruses neglected last year
- potential medical benefit
 - connected applications and funding
- increasing number of target sequences
- ZNF subject of iGEM Team Freiburg 09