生物育种专业·基因编辑技术课程

第五章：移花接木—引导编辑器Prime editors

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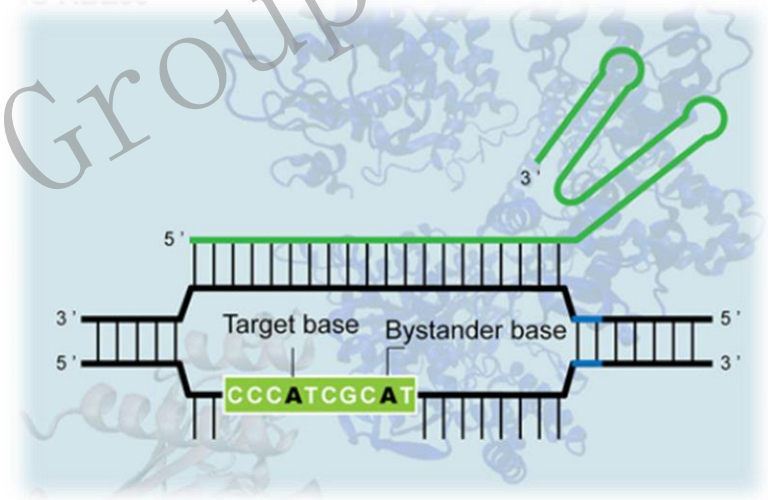
拓展思考3：

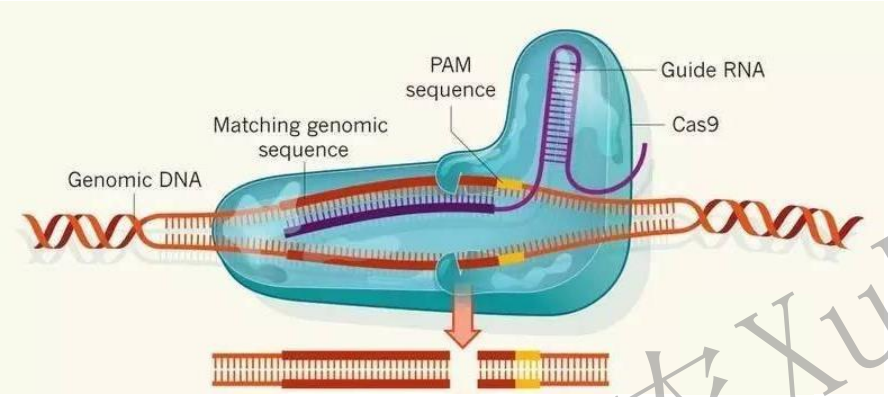
精准的碱基编辑有什么意义？

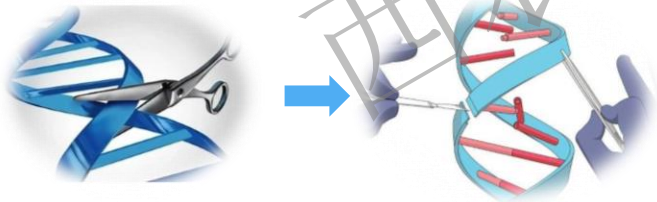
BEs存在问题：旁编辑，gRNA依赖性脱靶，gRNA非依赖性脱靶？

如何利用BEs进行基因“敲除”？



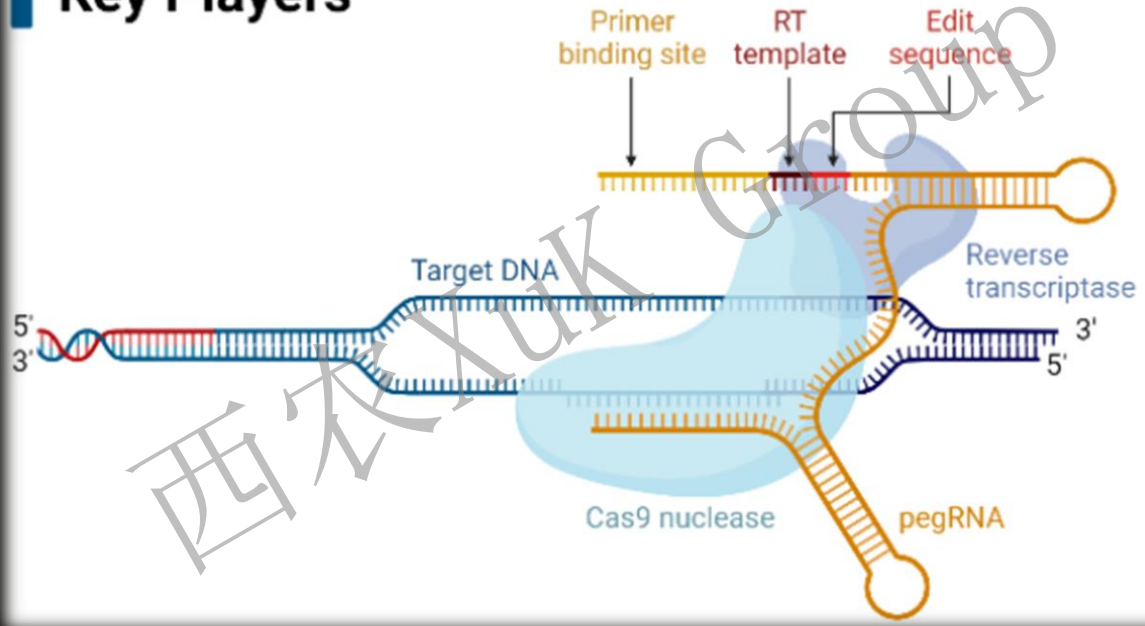
坏掉的剪刀—“nCas9”和“dCas9”





- **以CRISPR/Cas9为例**
- **Cas9缺口酶**（nCas9，Cas9n）：
  D10A or H840A
- **“死掉”的Cas9** (dead Cas9, dCas9):
  D10A and H840A

Prime Editing Key Players



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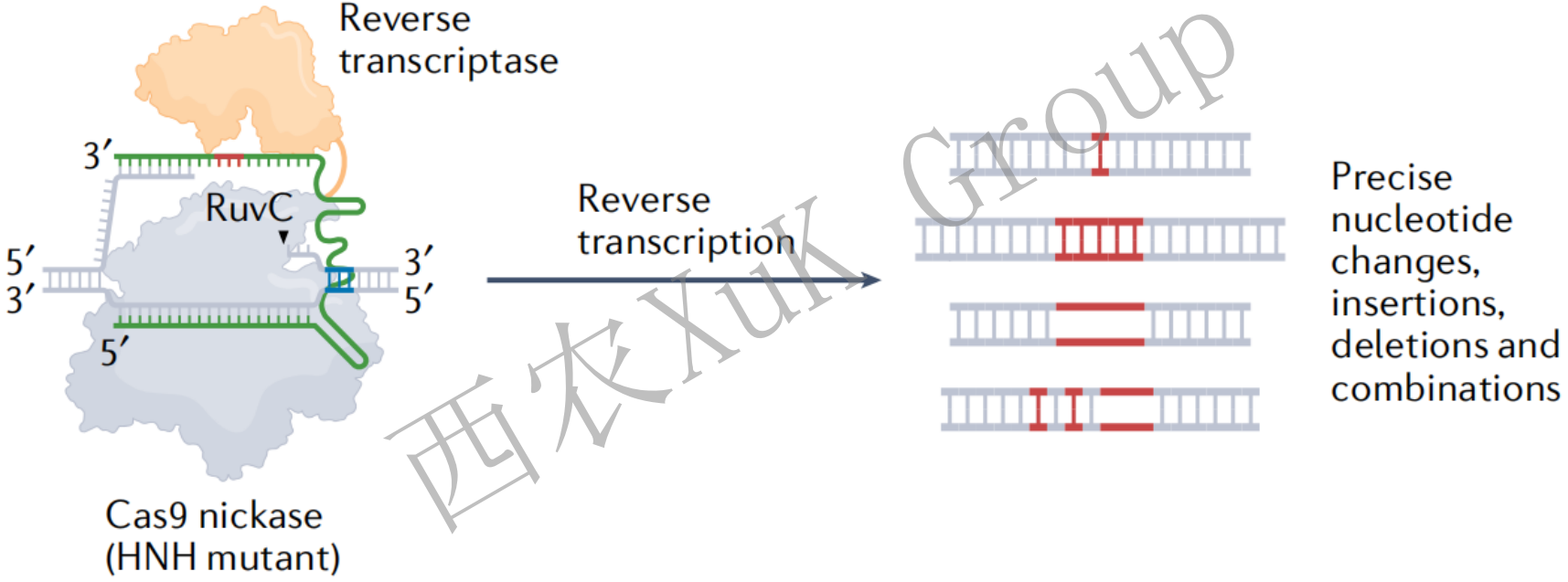
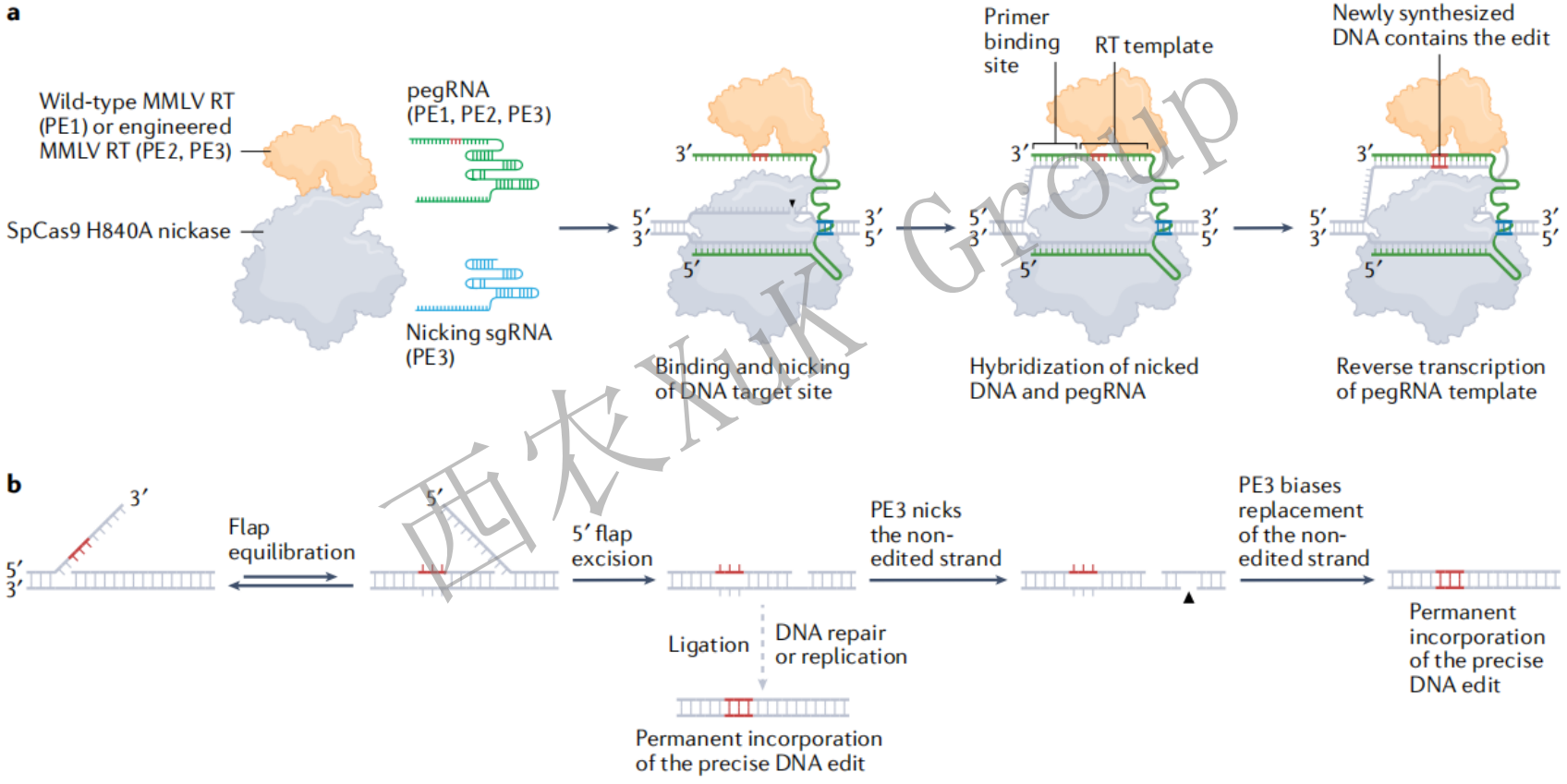
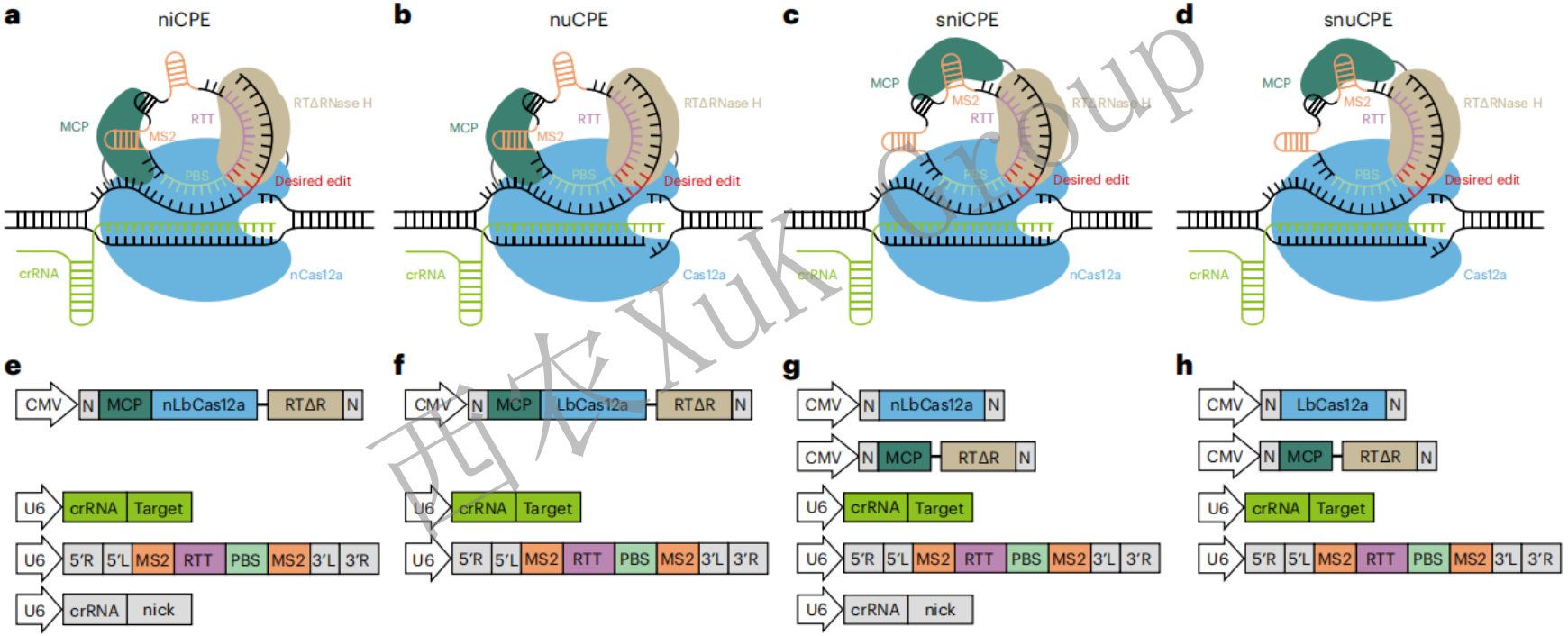
1. PE1 and beyond



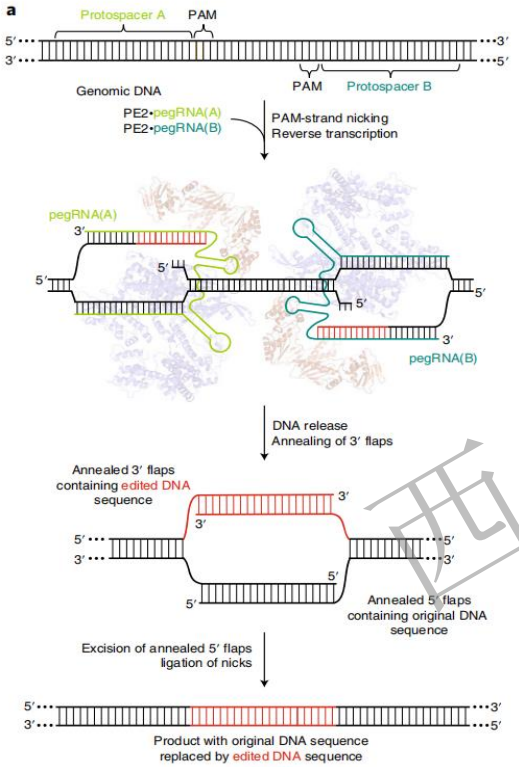
2. PE2 and beyond

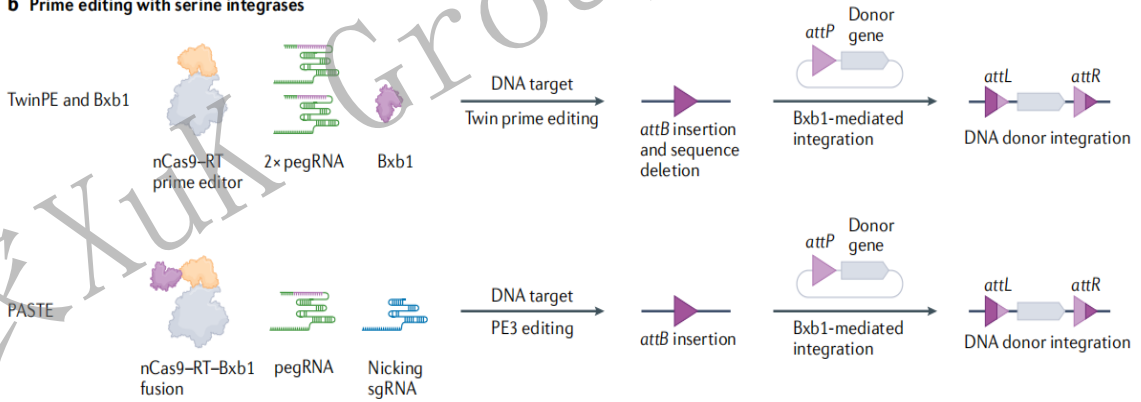


3. circular RNA-mediated PEs

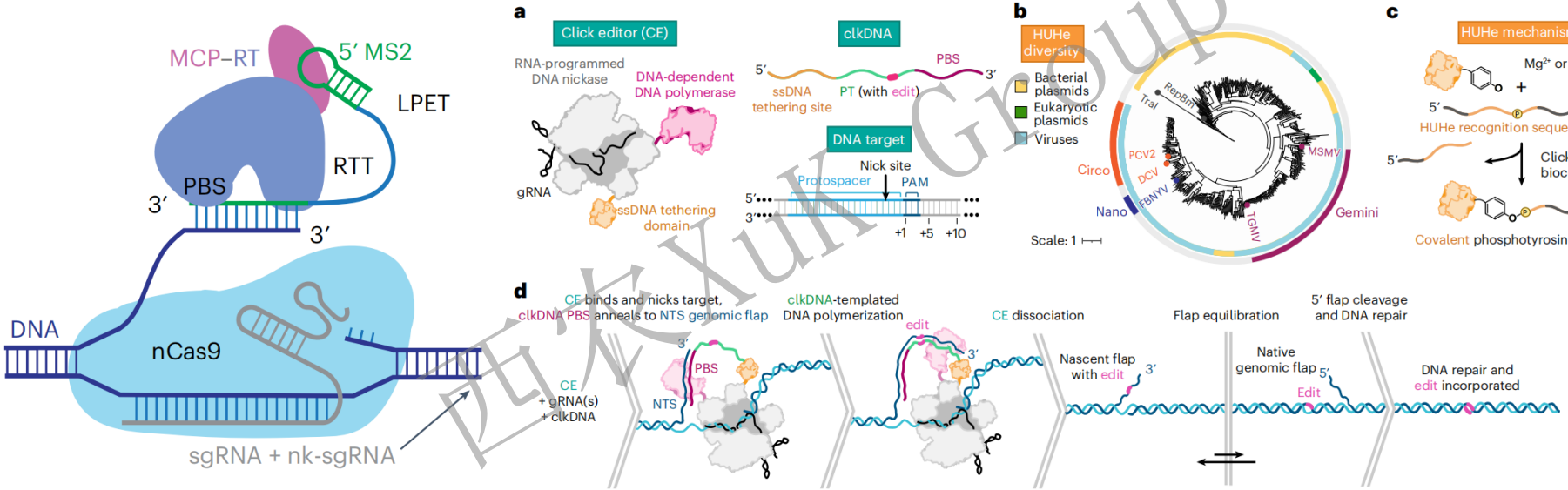


4. twinPE and beyond





5. Click editors



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