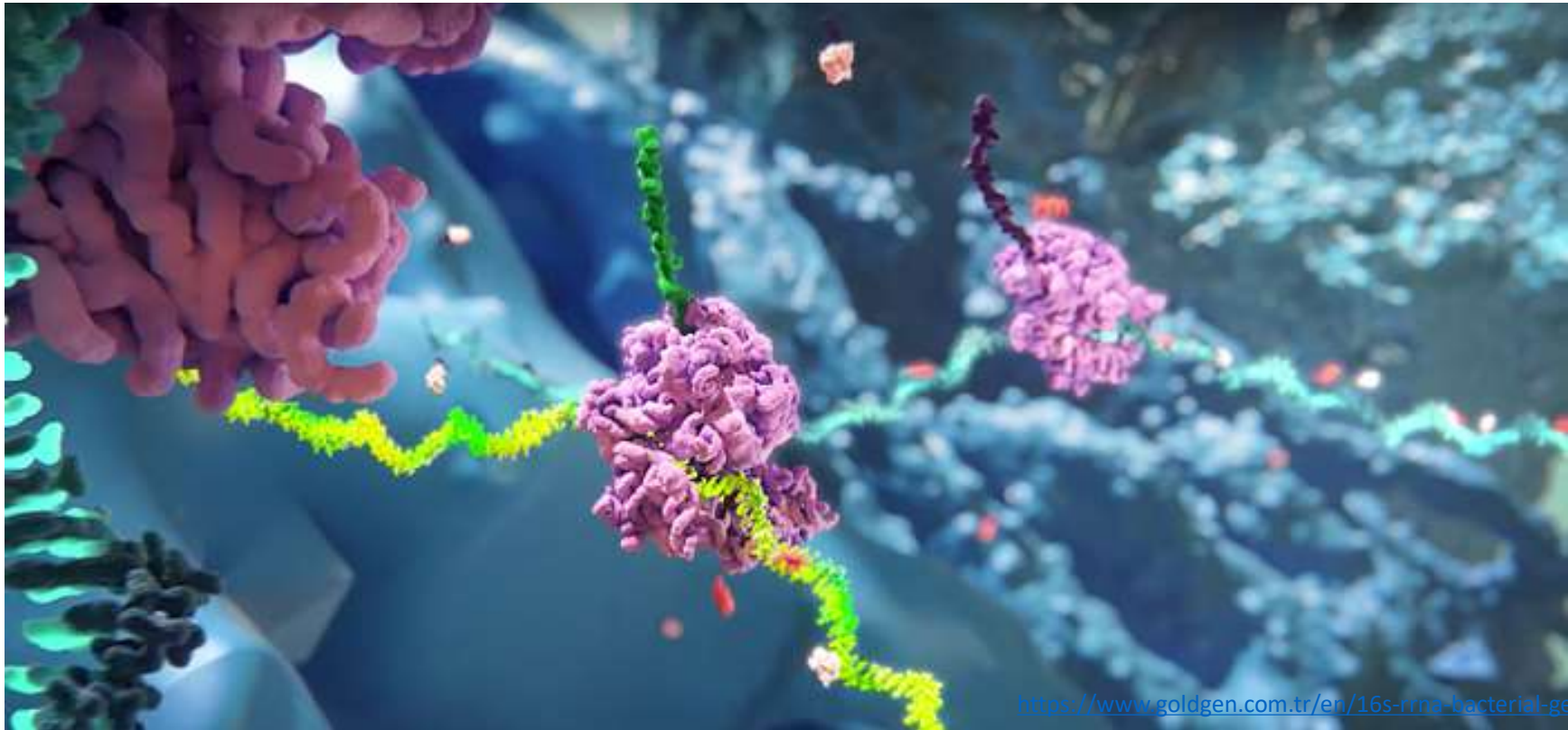


RNA Interference

Yih-Hwai Chuang & Pham Quoc Anh



What is RNA interference?

Use of RNA to inhibit gene expression or translation

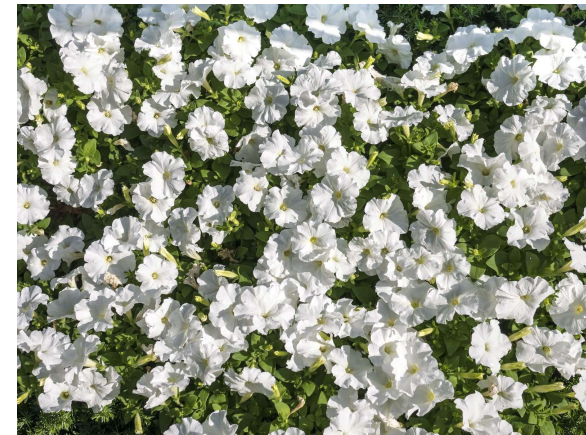


History

- First discovered in petunias.
- Trying to make the flowers having a darker purple color.
- Because of RNAi, the petals turn white.



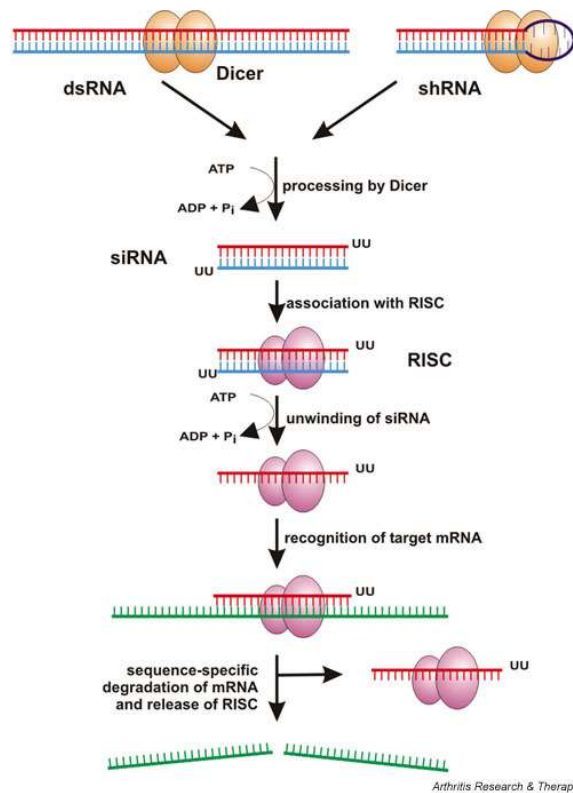
<https://activephotostyle.biz/image5467> 2019/6/24



<https://www.pakutaso.com/20140644168post-4249.html> 2019/6/24

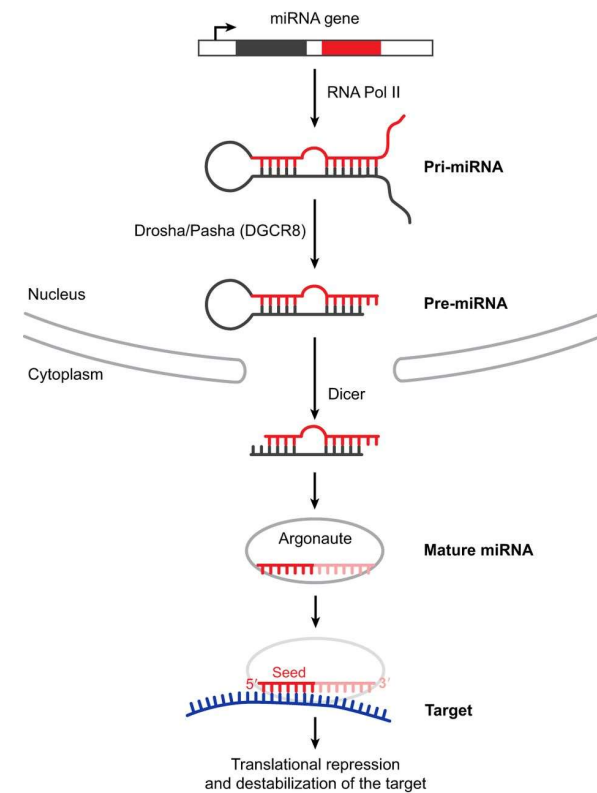
Mechanism

- **siRNA** (foreign RNA, perfect complementarity => mRNA degradation)



<https://link.springer.com/article/10.1186/ar1168> 2019/6/24

- **miRNA** (host RNA, imperfect complementarity => Bind to 3'UTR of mRNA and block access to ribosome)



<https://dev.biologists.org/content/144/14/2548> 2019/6/24

Application

- Cell Immunity (Eg: against virus)
- Gene regulation (Eg: stop unwanted gene expression)

Q&A