

Faculdade de Ciências da Universidade de Lisboa

Curso: Biologia

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Engenharia Genética



# RNA de interferência (RNAi)

Ana Catarina Dourado (35533), Catarina Clérigo (46559), Catarina Santos (48994),

Cláudia Sofia (53458), Miguel Moura (47286)

RNAi



Papel importante na **resposta imunitária** das células contra sequências parasíticas e/ ou patogénicas, especialmente em **plantas**



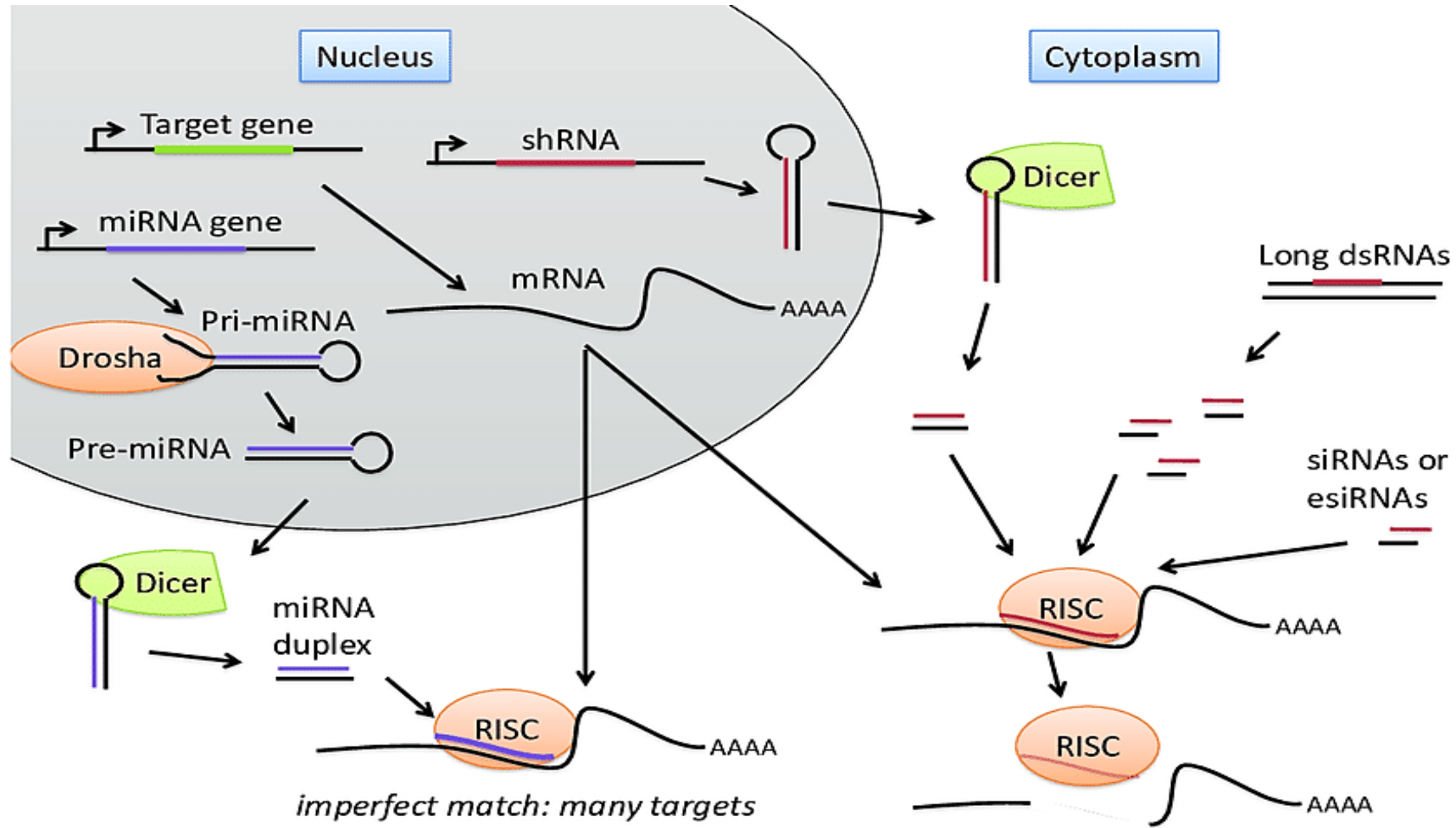
Constitui uma **defesa imunitária inata**



*Drosophila melanogaster*

*Caenorhabditis elegans*

# MODO DE AÇÃO

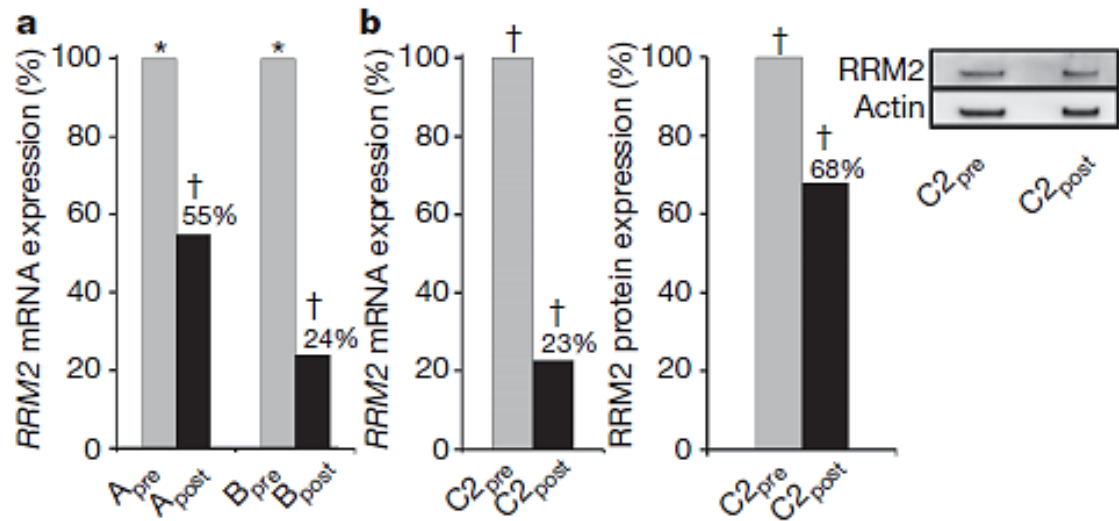


**miRNA mediated:**  
Target mRNA translational repression / decay

**siRNA mediated:**  
Target mRNA cleavage

Adaptado de: List, M. 2015. *Development of Bioinformatics Tools for Biomedical High-Throughput Analyses*. PhD Thesis. University of Southern Denmark.

## APLICAÇÃO PRÁTICA



**Figure 2 | RRM2 mRNA and protein expression in tumour tissue.** a, qRT-PCR analysis of *RRM2* mRNA levels in samples from patients A and B before and after dosing. *RRM2* mRNA levels are normalized to TATA box binding protein (*TBP*) mRNA levels. Results are presented as the percentage of the pre-dosing *RRM2/TBP* mRNA levels for each patient. b, qRT-PCR and western blot analysis of *RRM2* protein expression from patient samples C2<sub>pre</sub> and C2<sub>post</sub>. The bar graph shows the average volume of western blot bands from two independent experiments; one representative blot is pictured. Asterisk denotes archived samples; dagger symbol denotes samples obtained during the trial.

- Na utilização dos siRNAs em procedimentos experimentais, ter em conta **6 pontos importantes**, relacionados com locais alvo e tamanho, constituição e homologia de seqüências.