

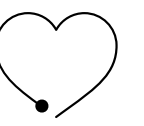
THE
NOBEL
PRIZE

MEDICINE PRIZE 2024

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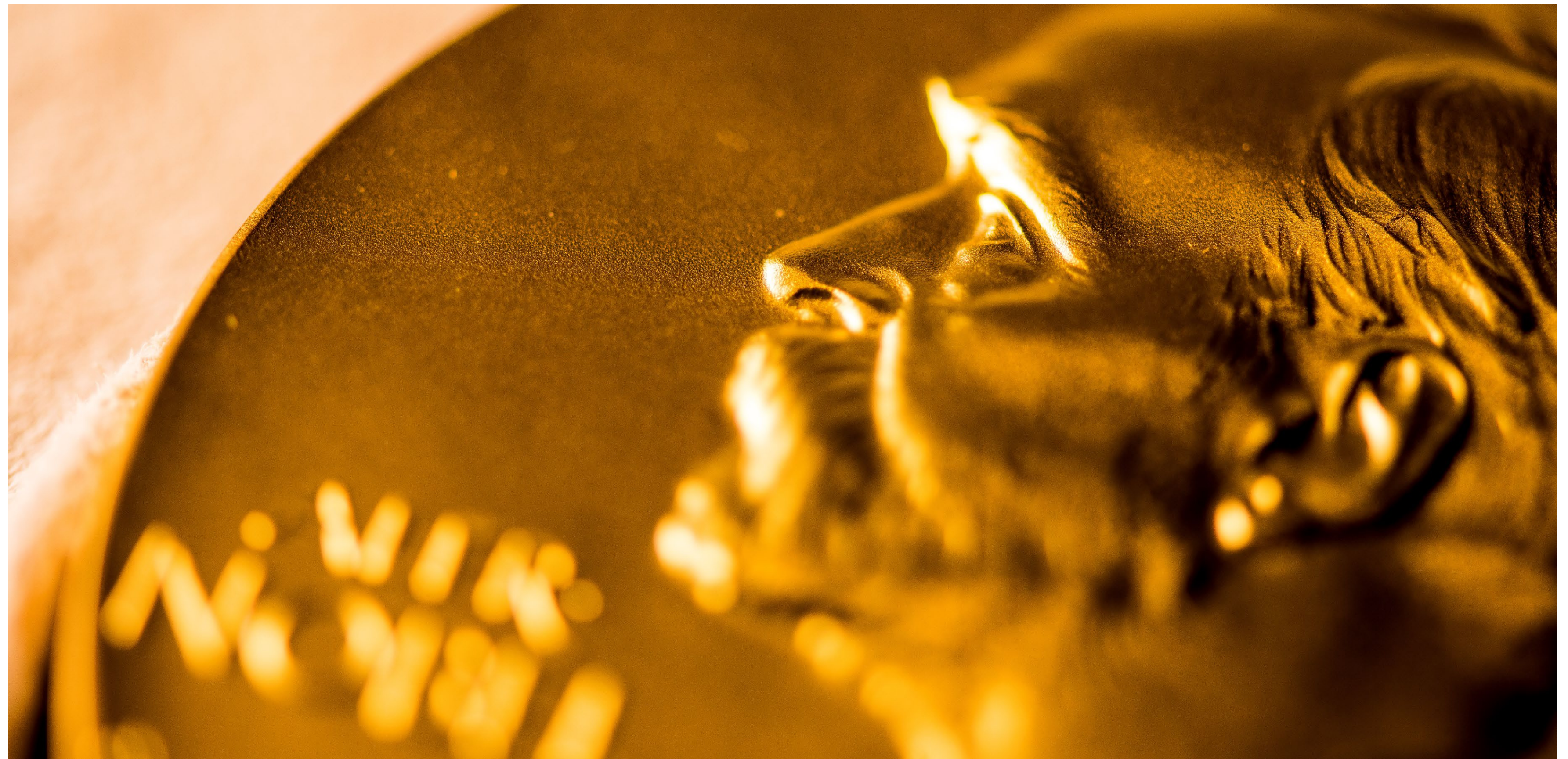
MicroRNA and its function

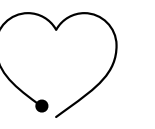




The Nobel Prize in Physiology or Medicine

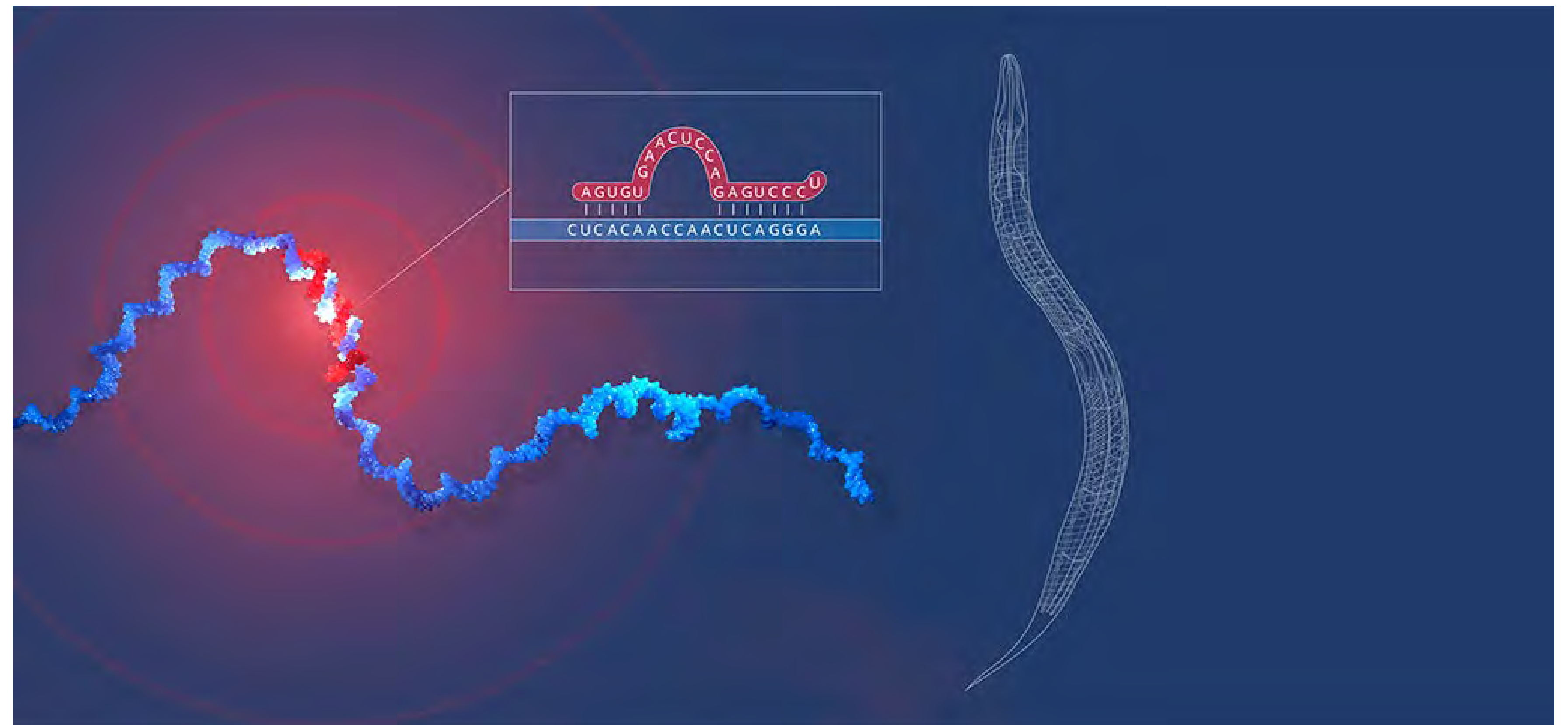
“the person who shall have made the most important discovery within the domain of physiology or medicine”

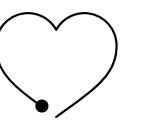




The 2024 medicine prize

The 2024 medicine prize is about the discovery of a fundamental principle governing how gene activity is regulated.





The 2024 medicine laureates

“for the discovery of microRNA and its role in post-transcriptional gene regulation”

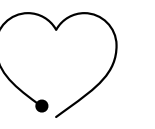


Victor Ambros
Born: 1953, USA



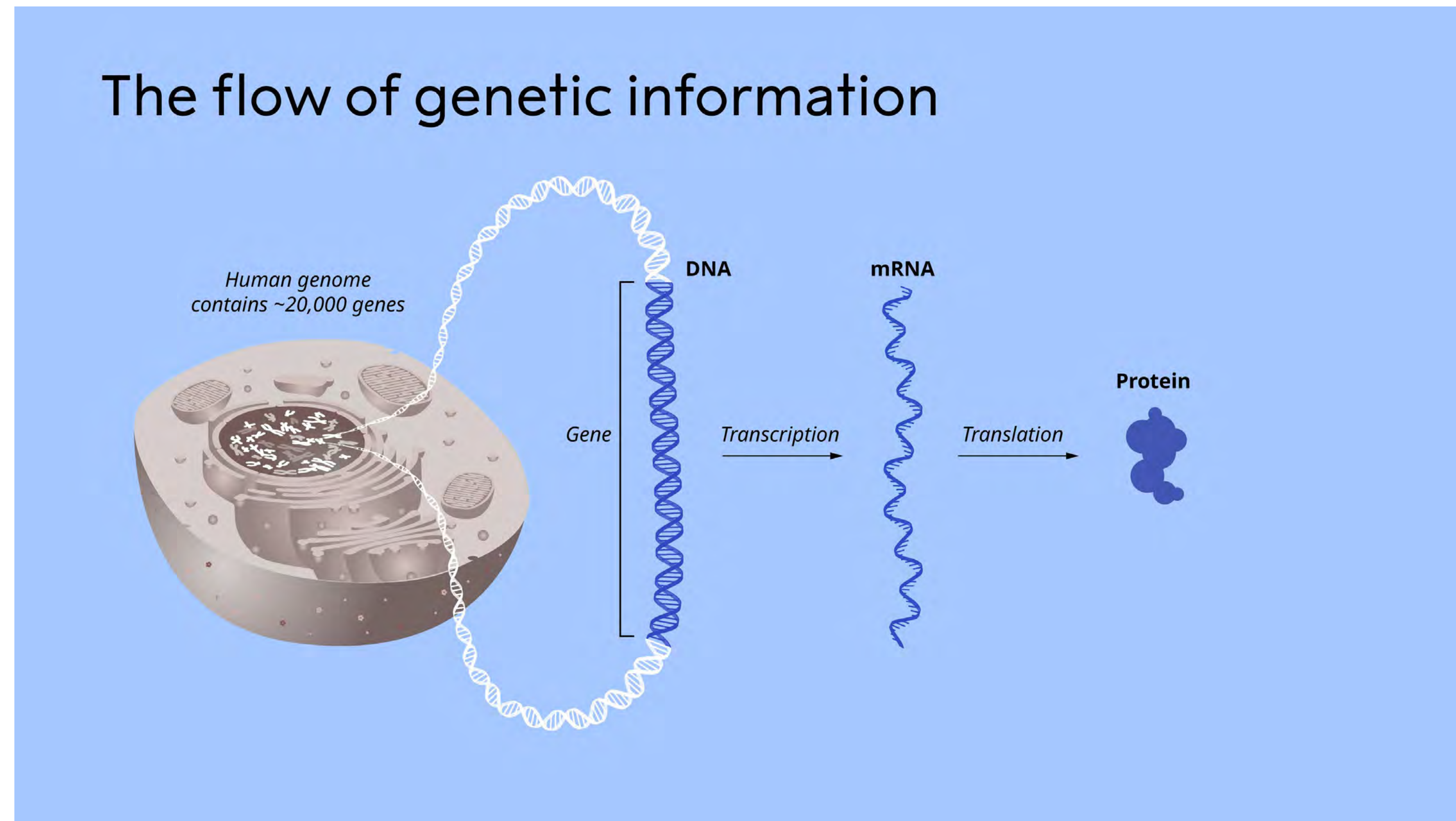
Gary Ruvkun
Born: 1952, USA

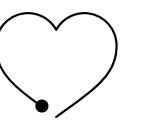
ILL. NIKLAS ELMHED © NOBEL PRIZE OUTREACH



From DNA to protein

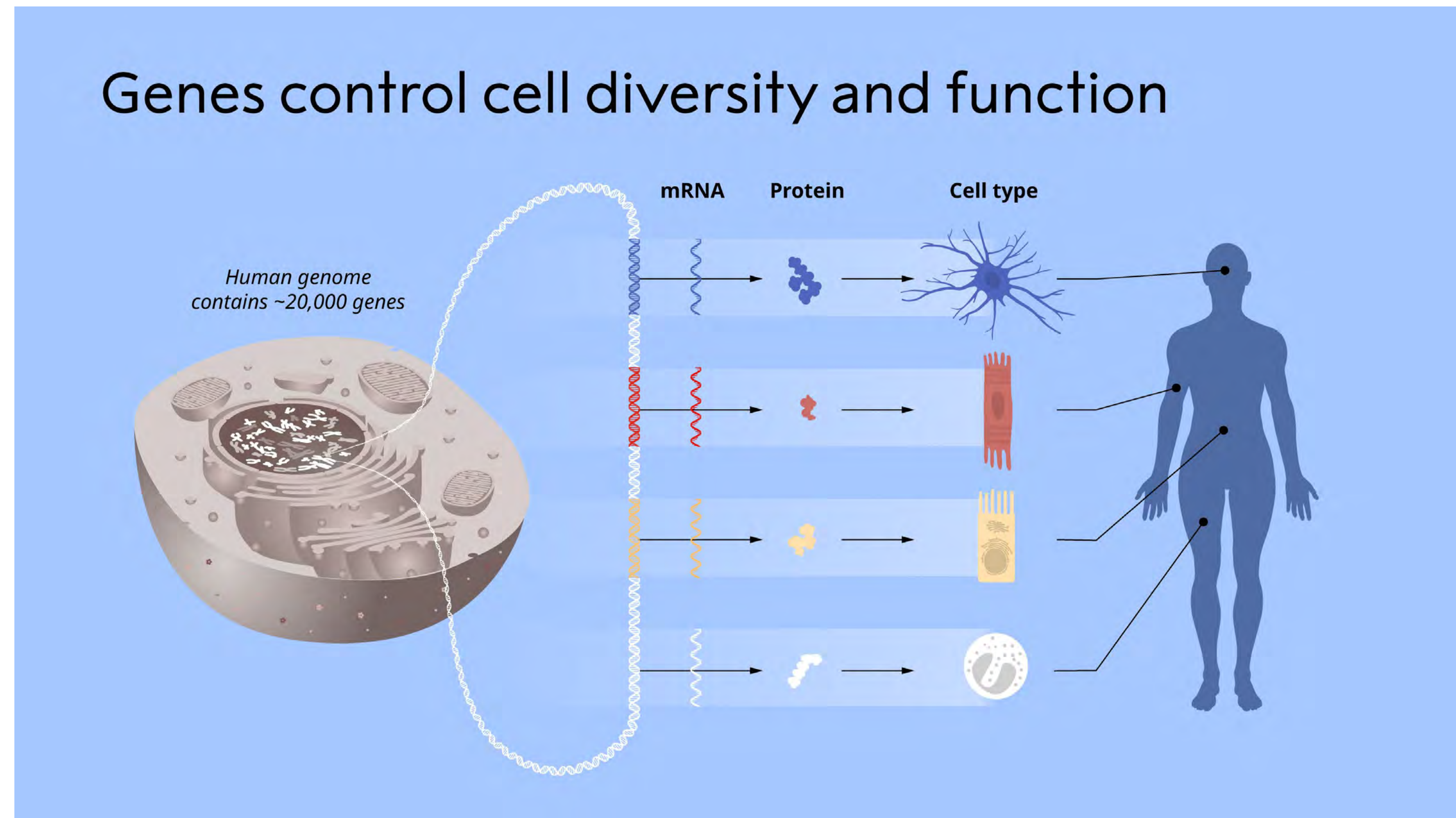
Transcription occurs in the cell's nucleus.
Translation occurs in the cytoplasm.

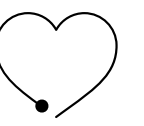




Gene regulation

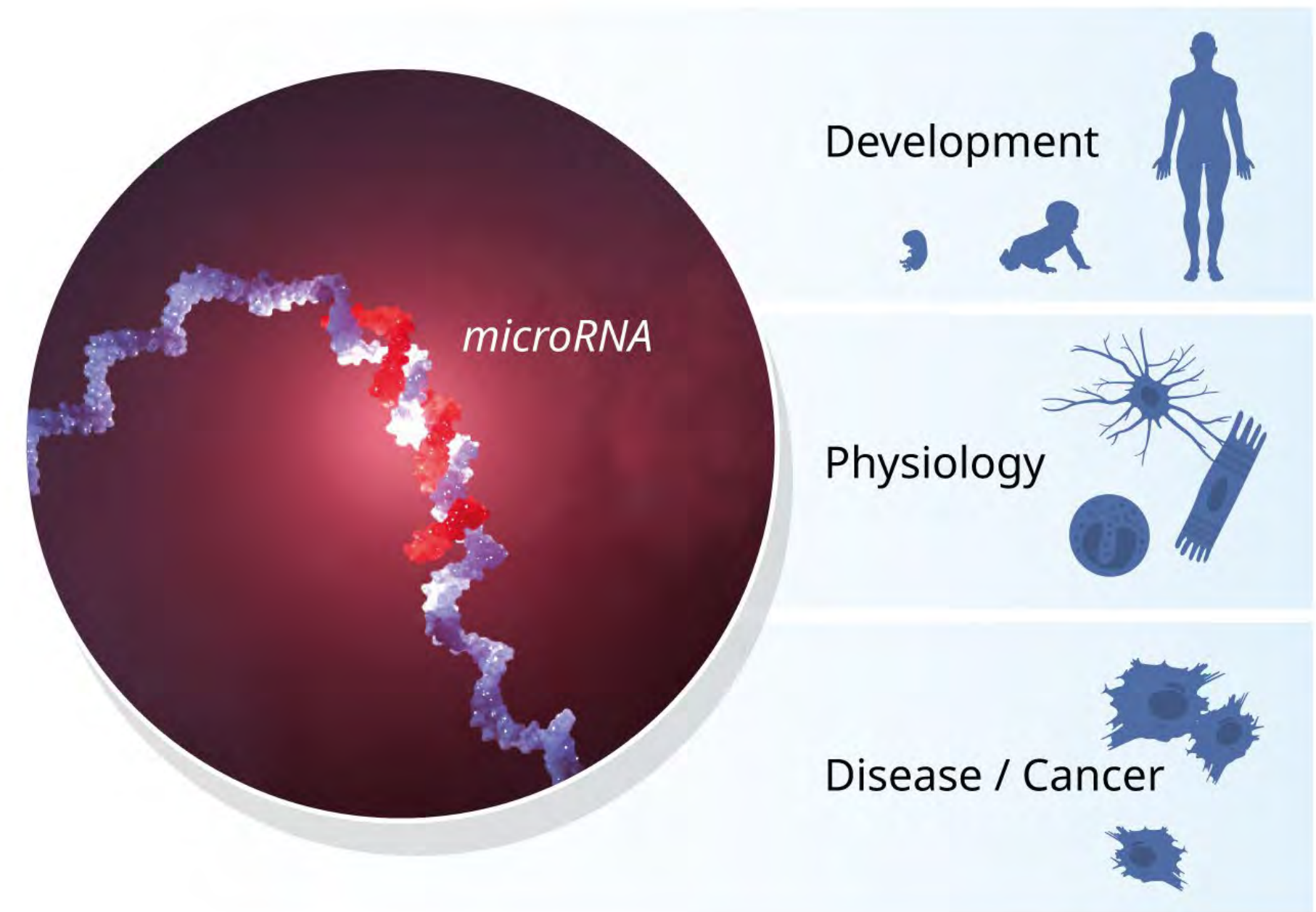
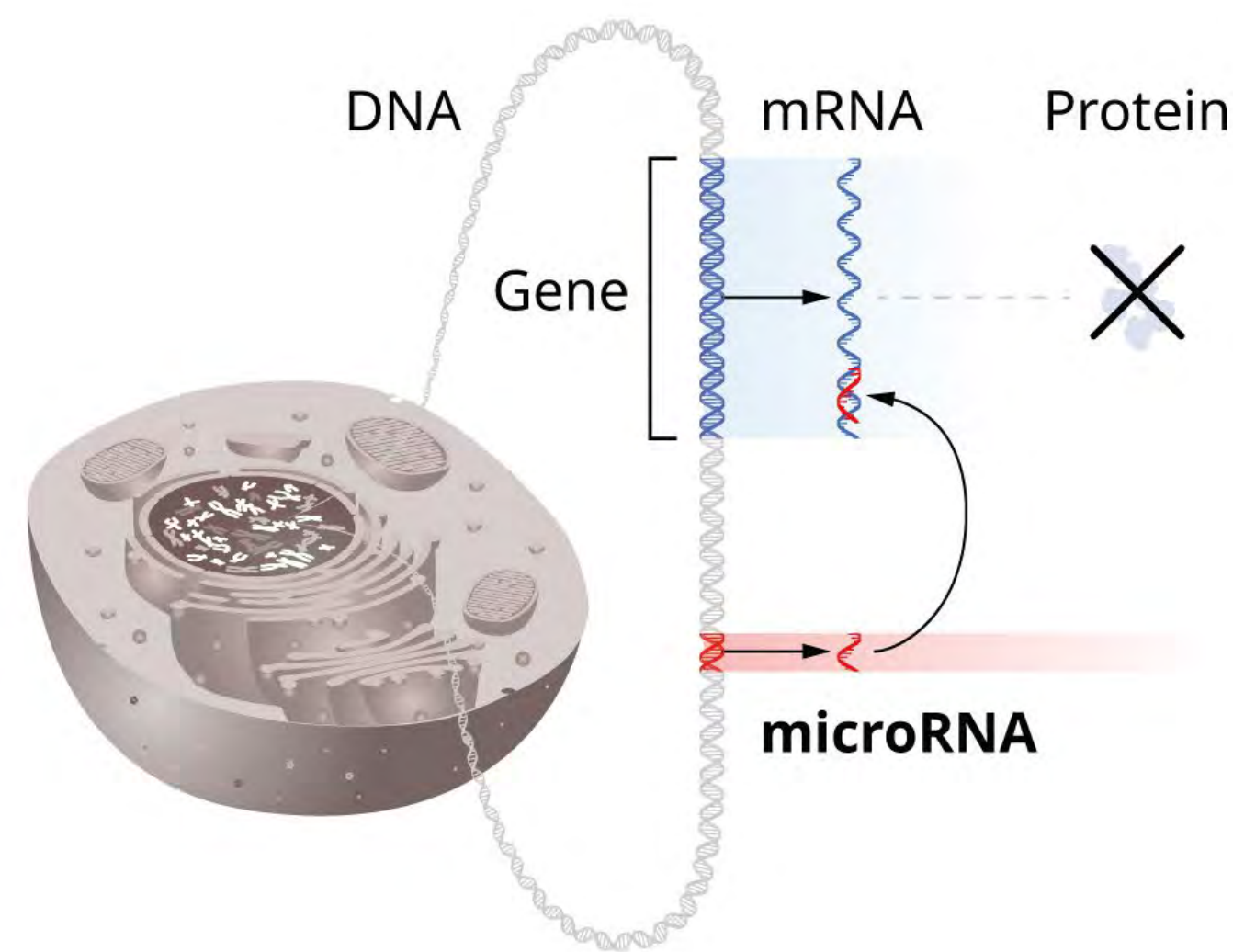
The process that determines which proteins are synthesized by a cell and how much is synthesized is called gene regulation.

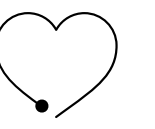




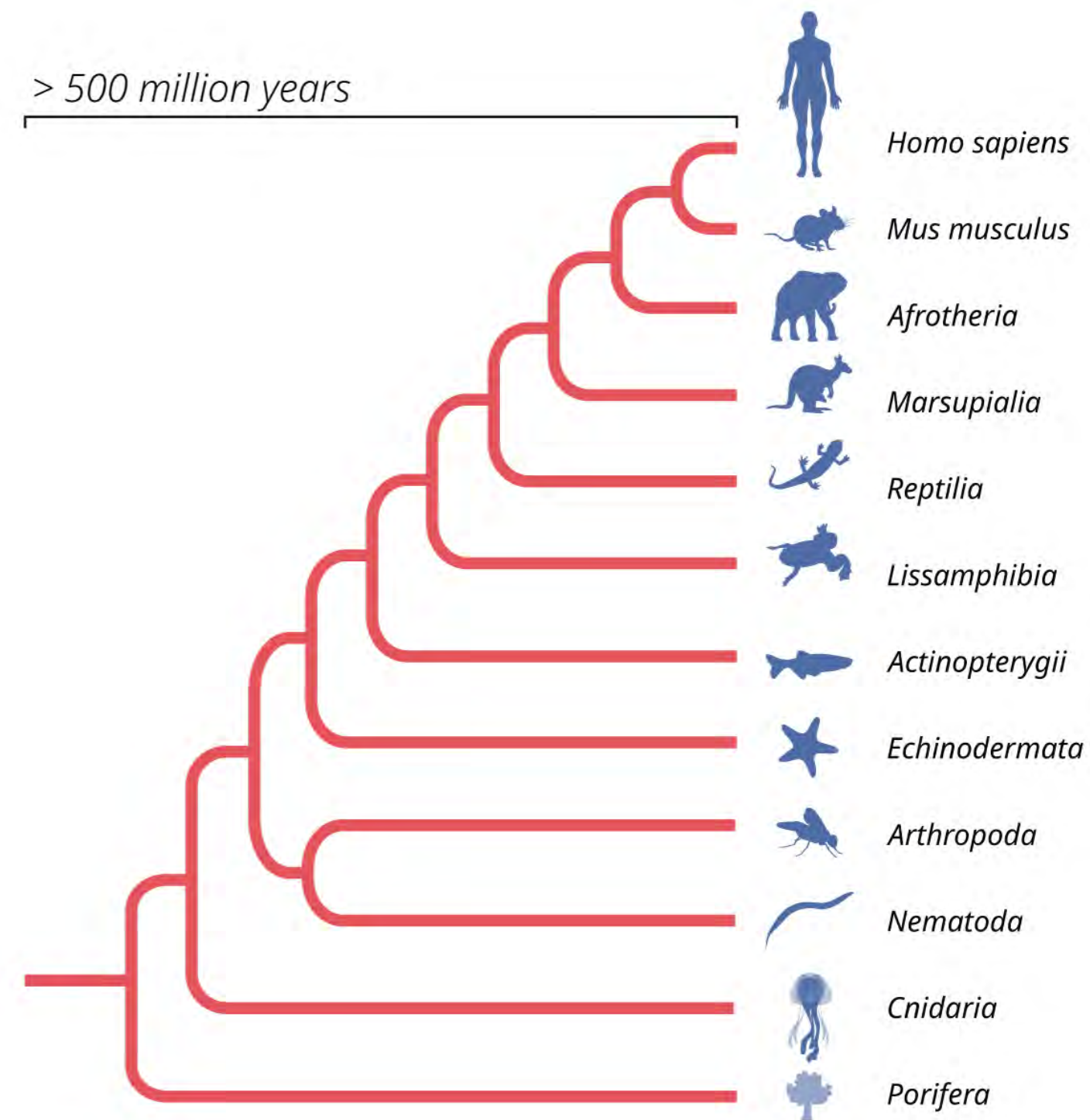
The pioneering discovery

MicroRNA influences gene regulation.

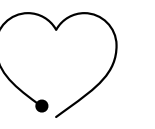




From worm to human



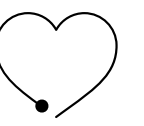
Today it is recognised that gene regulation through microRNA is universal among multicellular organisms.



For the greatest benefit to humankind

Basic research gives us valuable knowledge and feeds our curiosity.





“It's a completely new physiological mechanism. Completely out of the blue.”

Olle Kämpe, The Nobel Committee for Physiology or Medicine

THE
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PRIZE

FOR THE GREATEST
BENEFIT TO
HUMANKIND

Nobel Prize lessons