

ALL NOBEL PRIZES 2021



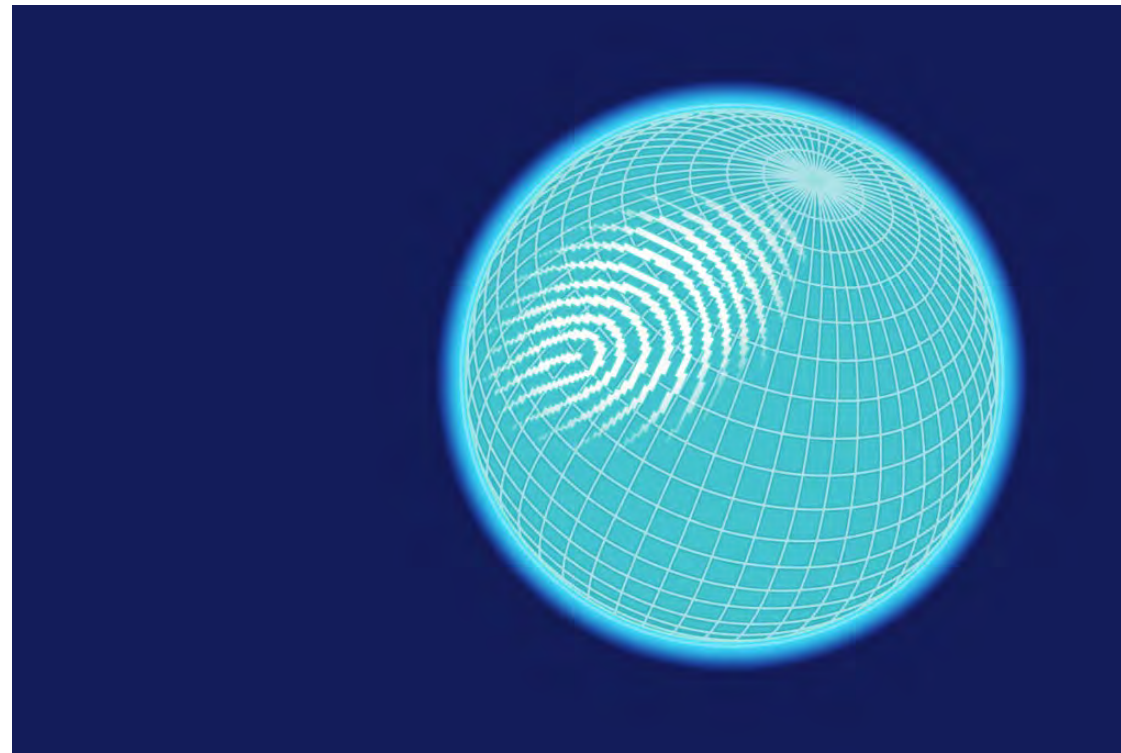
The Nobel Prize

“to those who,
during the
preceding year, shall
have conferred
the greatest benefit
to humankind”

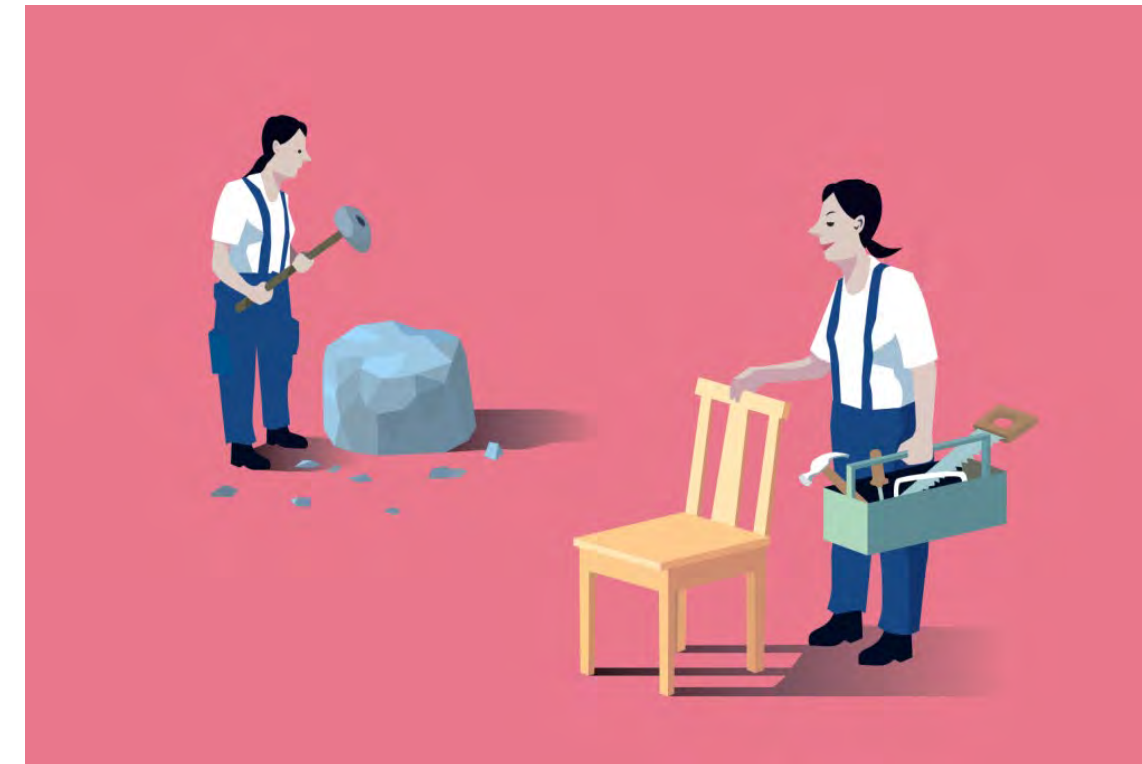
Alfred Nobel
(1833–1896)



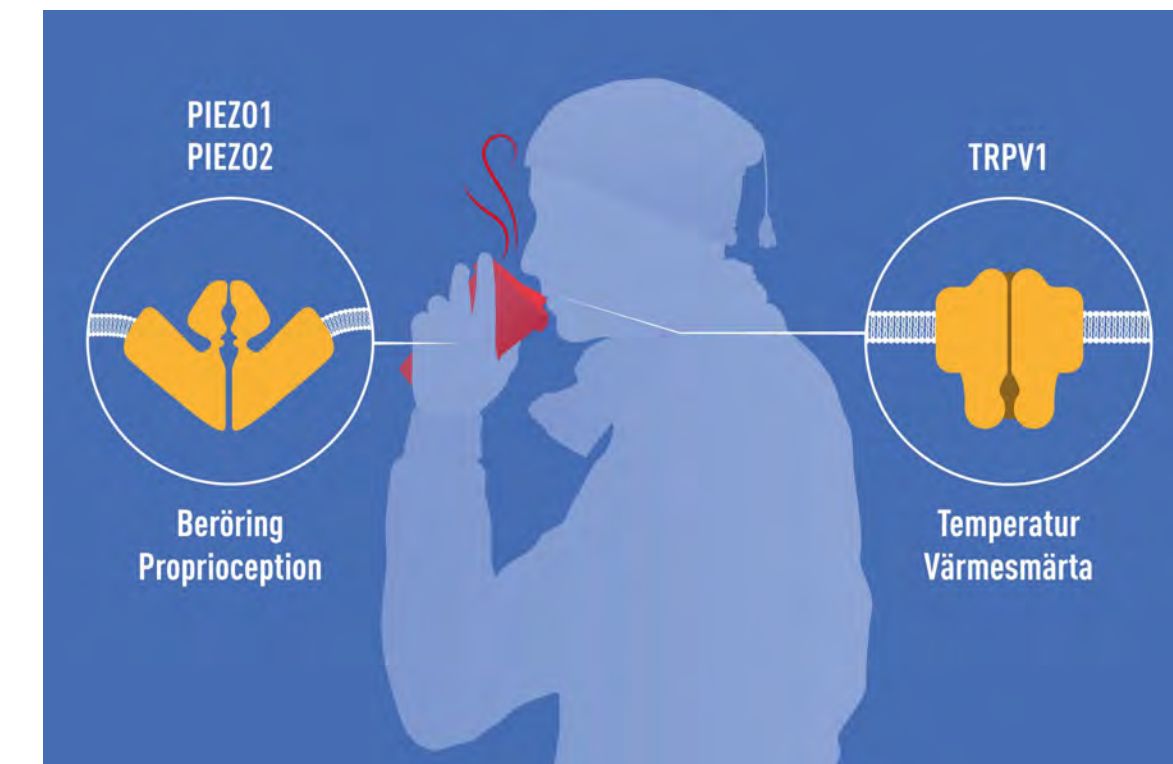
The Nobel Prizes 2021



Physics prize:
models of the climate and
other complex systems



Chemistry prize:
a tool that have revolutionised
the construction of molecules



Medicine prize:
receptors reacting to temperature
and pressure



Literature prize:
the author Abdulrazak Gurnah



Peace prize:
efforts in the name of freedom of
expression



Prize in economic sciences:
natural experiments

Physics prize 2021

The 2021 physics prize is awarded for models of the climate and other complex systems.



The 2021 physics laureates

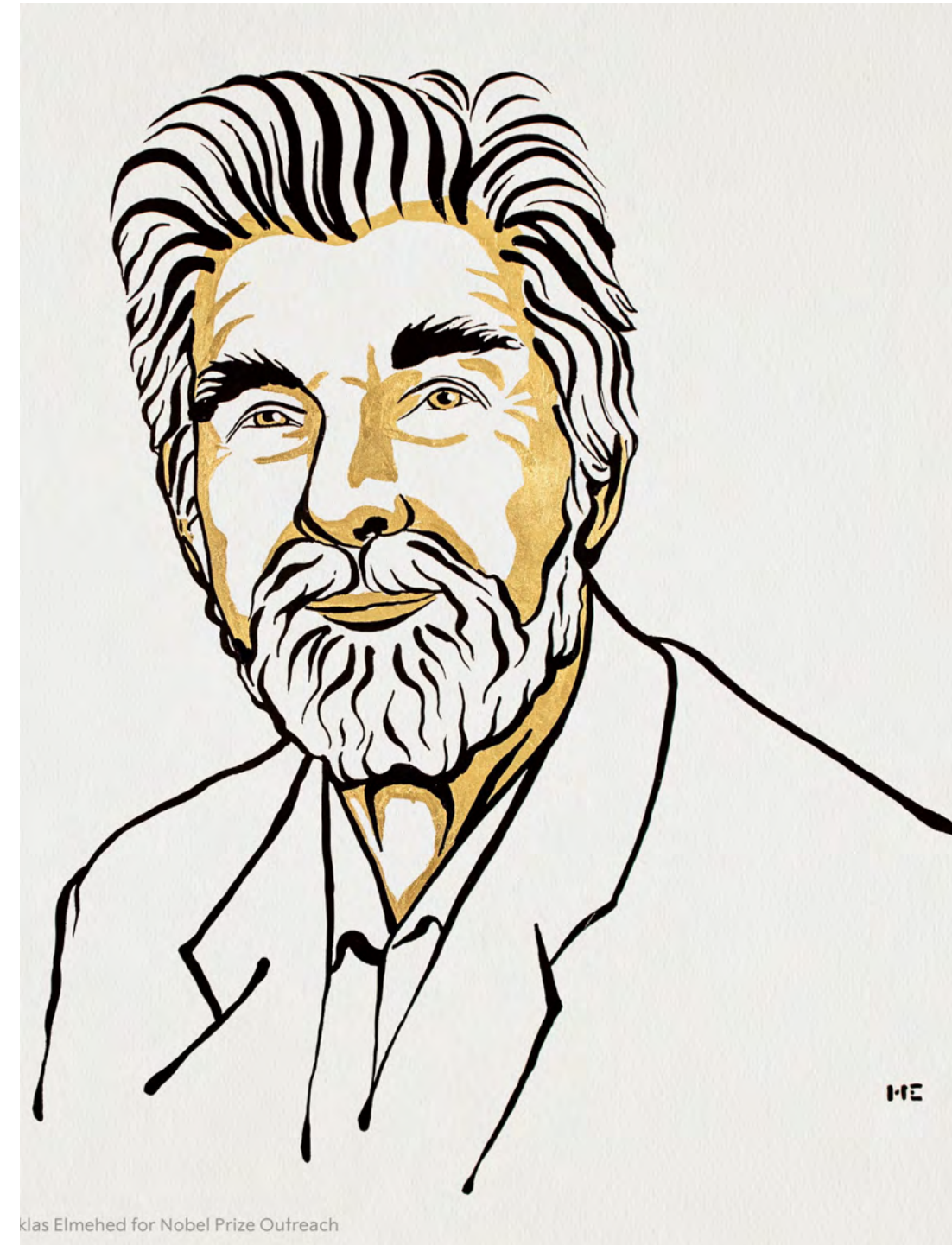
"for groundbreaking contributions to our understanding of complex physical systems"

Syukuro Manabe and Klaus Hasselmann *for the physical modelling of Earth's climate, quantifying variability and reliably predicting global warming"*

Giorgio Parisi *"for the discovery of the interplay of disorder and fluctuations in physical systems from atomic to planetary scales"*



Syukuro Manabe
Born: 1931, Japan



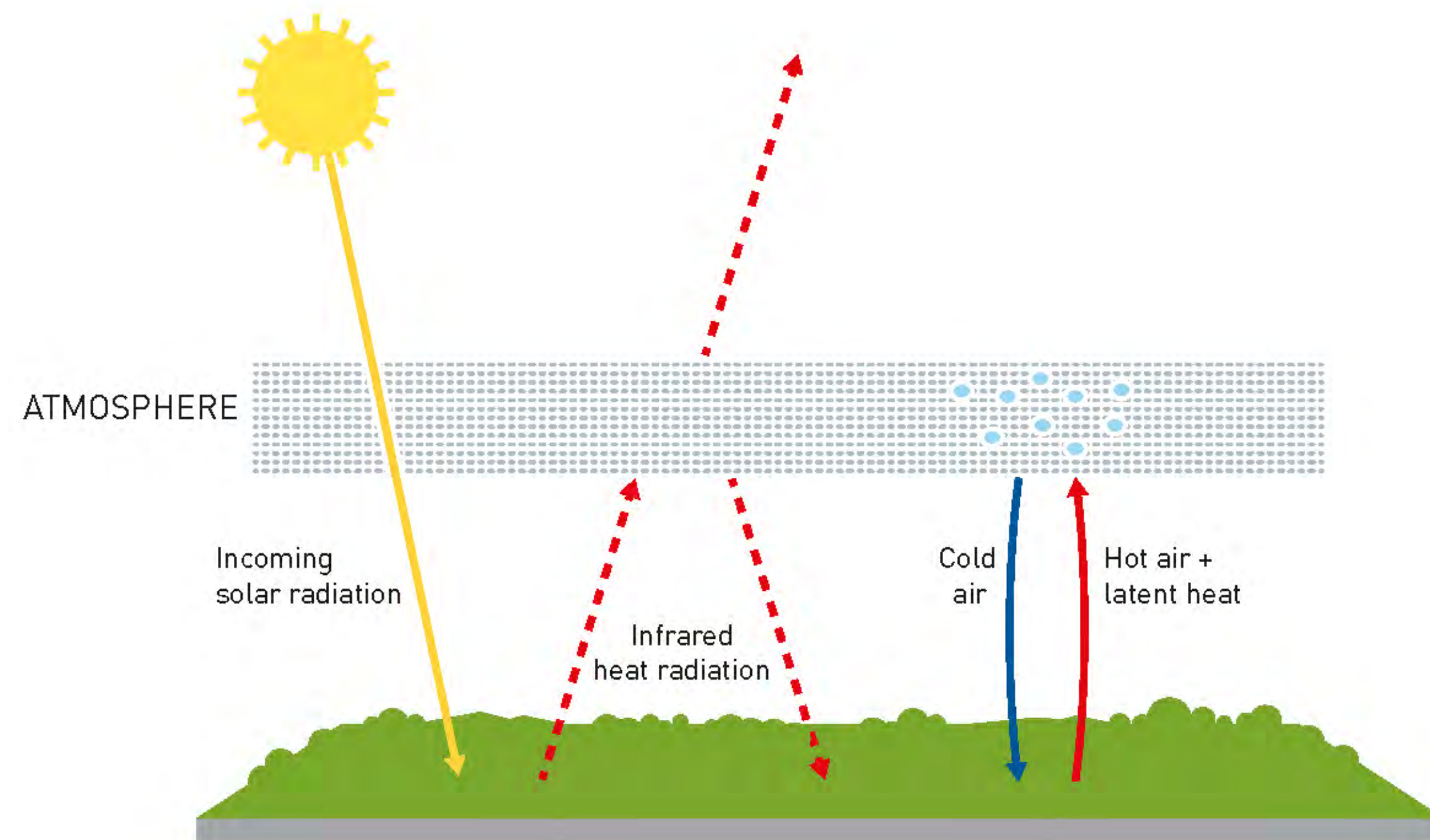
Klaus Hasselmann
Born: 1931, Germany



Giorgio Parisi
Born: 1948, Italy

Models of the climate and other complex systems

Syukuro Manabe has developed models that demonstrate that increased levels of carbon dioxide in the atmosphere lead to higher temperatures on the earth's surface.



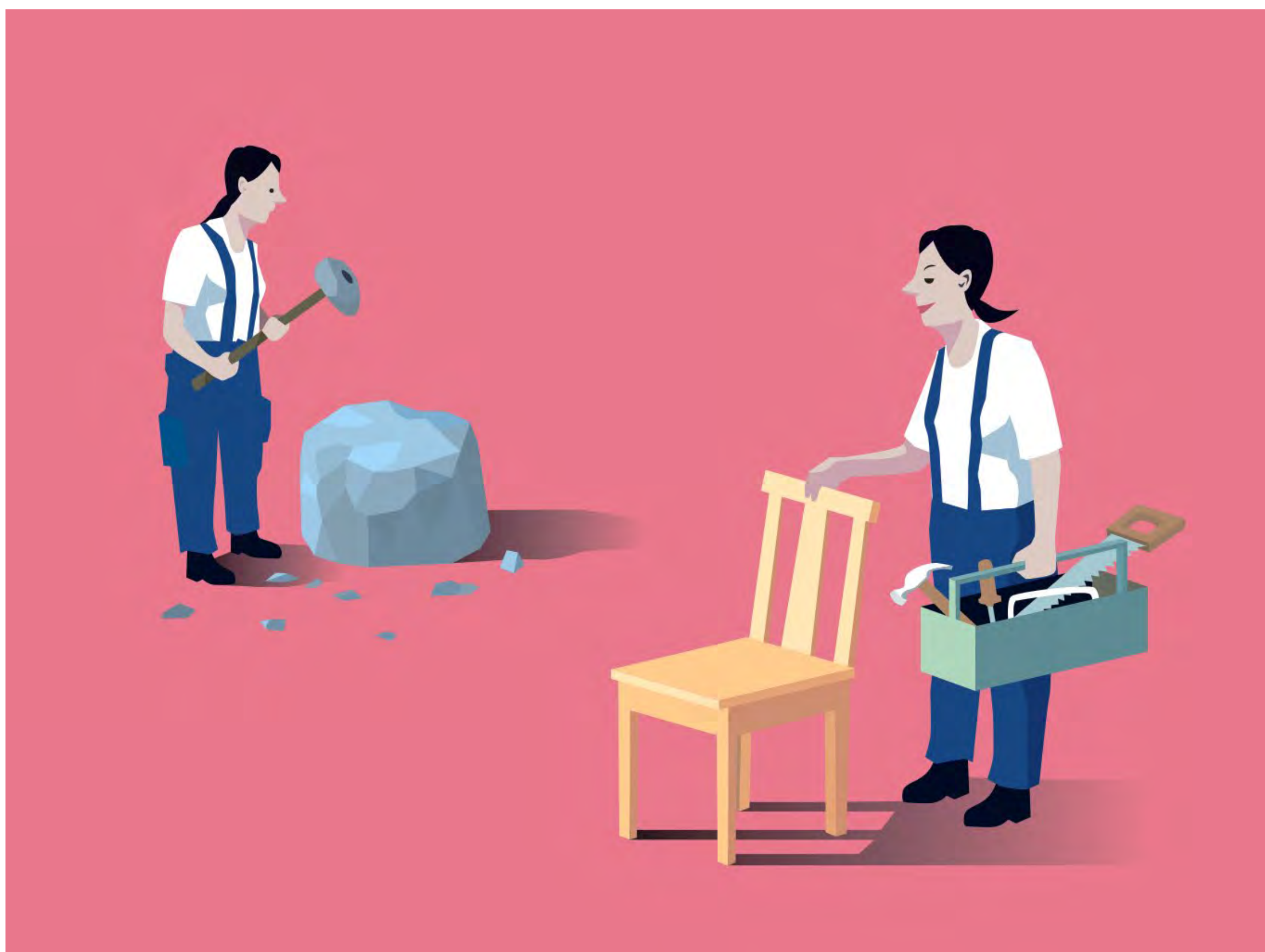
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PHOTO: KENNETH ALLEN

The 2021 chemistry prize

The prize is awarded for tools that have revolutionised the construction of molecules.



The 2021 chemistry laureates

"for the development of asymmetric organocatalysis"



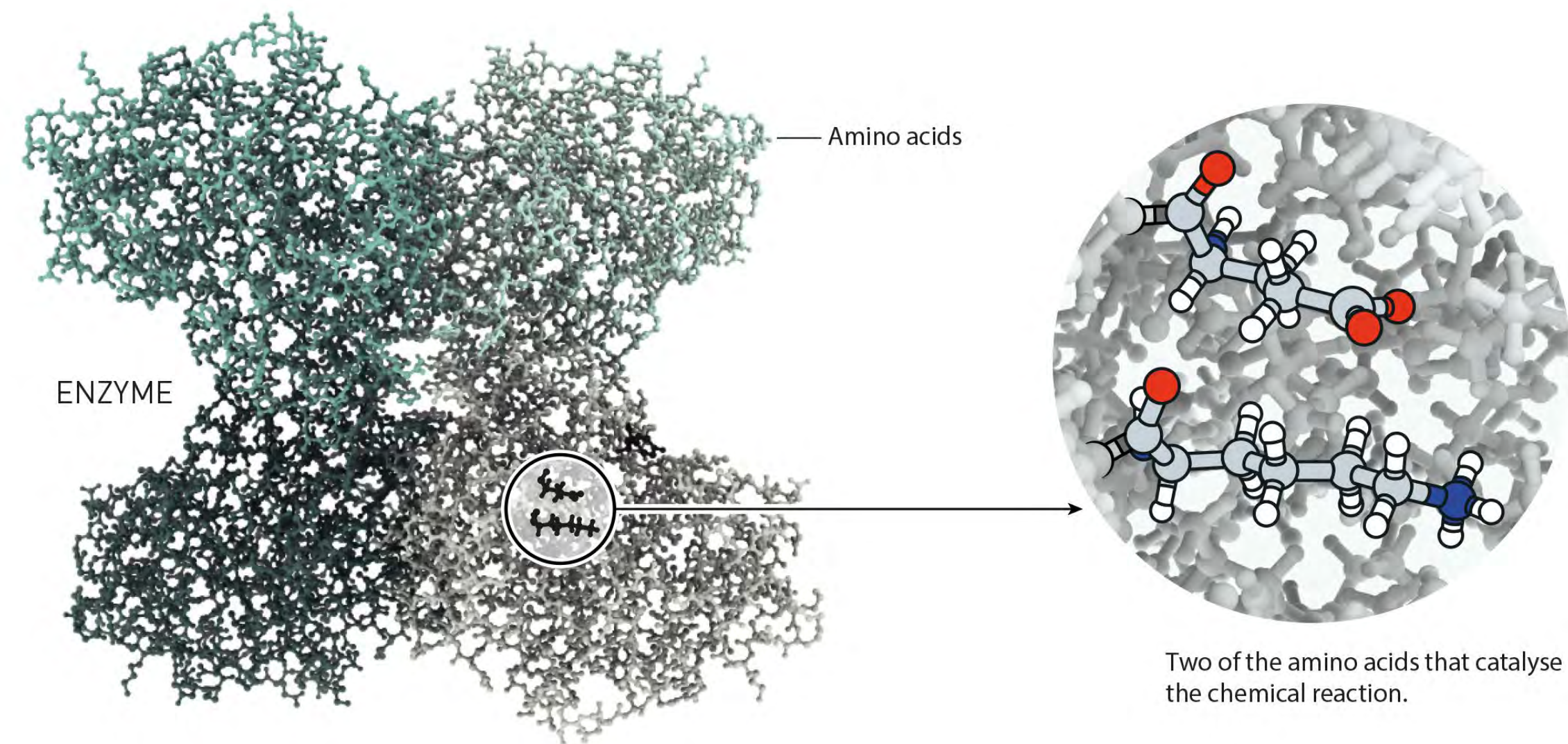
Benjamin List
Born: 1968, Germany



David W.C. MacMillan
Född: 1968, Storbritannien

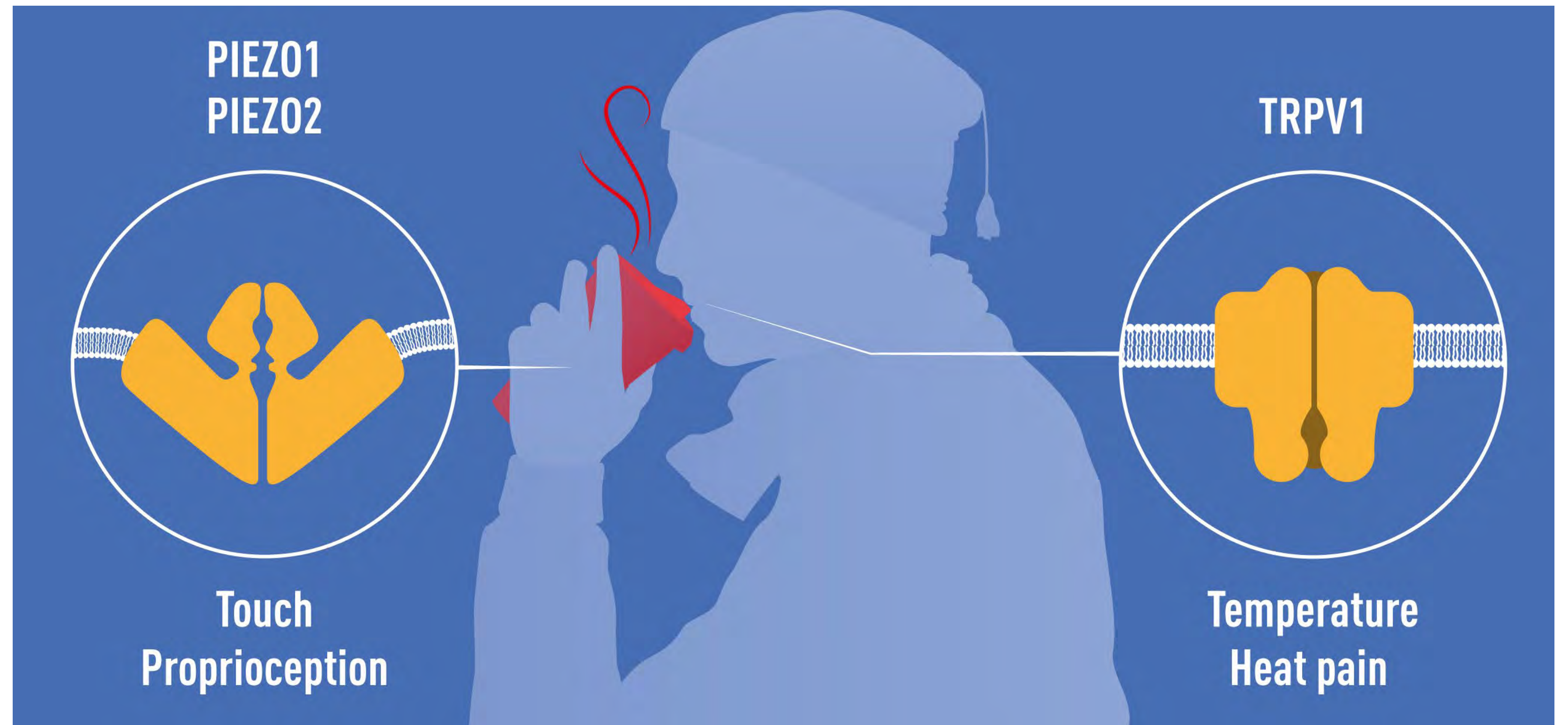
Cheap, simple and eco-friendly

The laureates' tools are being used to produce pharmaceuticals more efficiently, more sustainably and more cheaply.



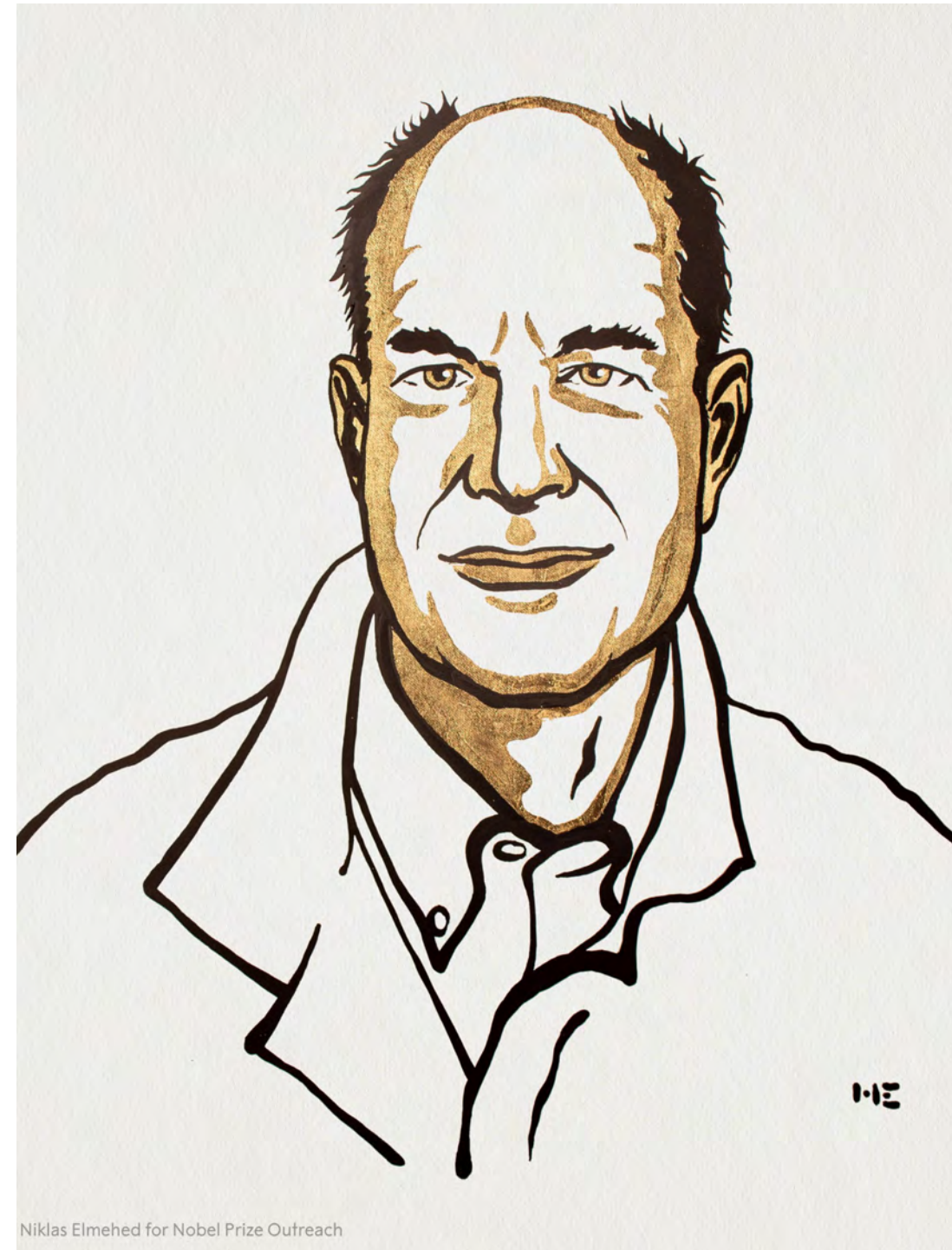
The medicine prize 2021

The discovery of how certain specific receptors react to temperature and touch allows us to explain our ability to perceive the world around us.



The 2021 medicine laureates

“for their discoveries of receptors for temperature and touch”



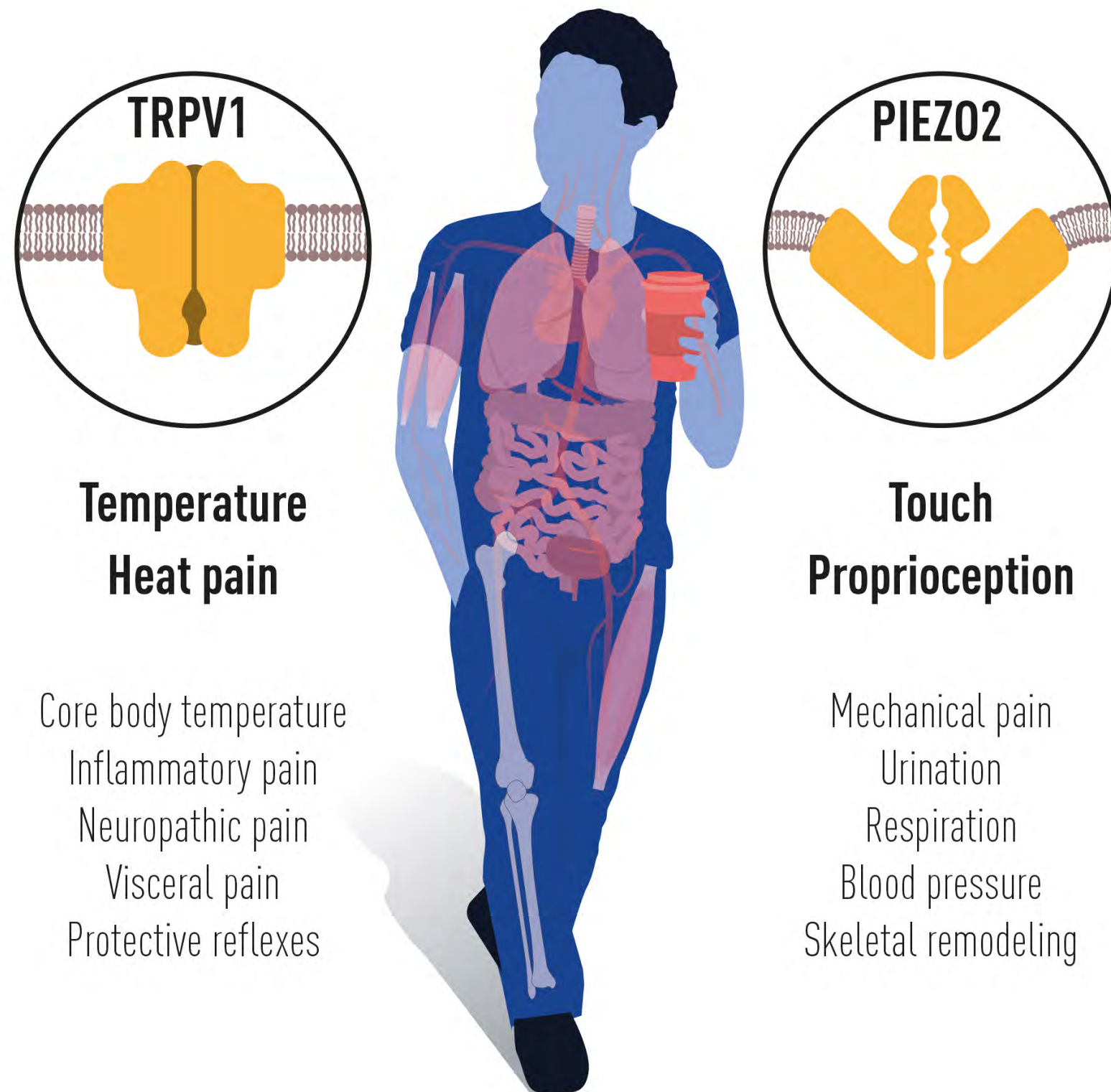
David Julius
Born: 1955, USA



Ardem Patapoutian
Born: 1967, Lebanon

For the greatest benefit to humankind

The laureates' discoveries can be used in further research to develop new treatment methods for various disease conditions, including chronic pain.



The literature prize 2021



Abdulrazak Gurnah
Born: 1948, Zanzibar

"for his uncompromising and
compassionate penetration of the effects of
colonialism and the fate of the refugee in
the gulf between cultures and continents."

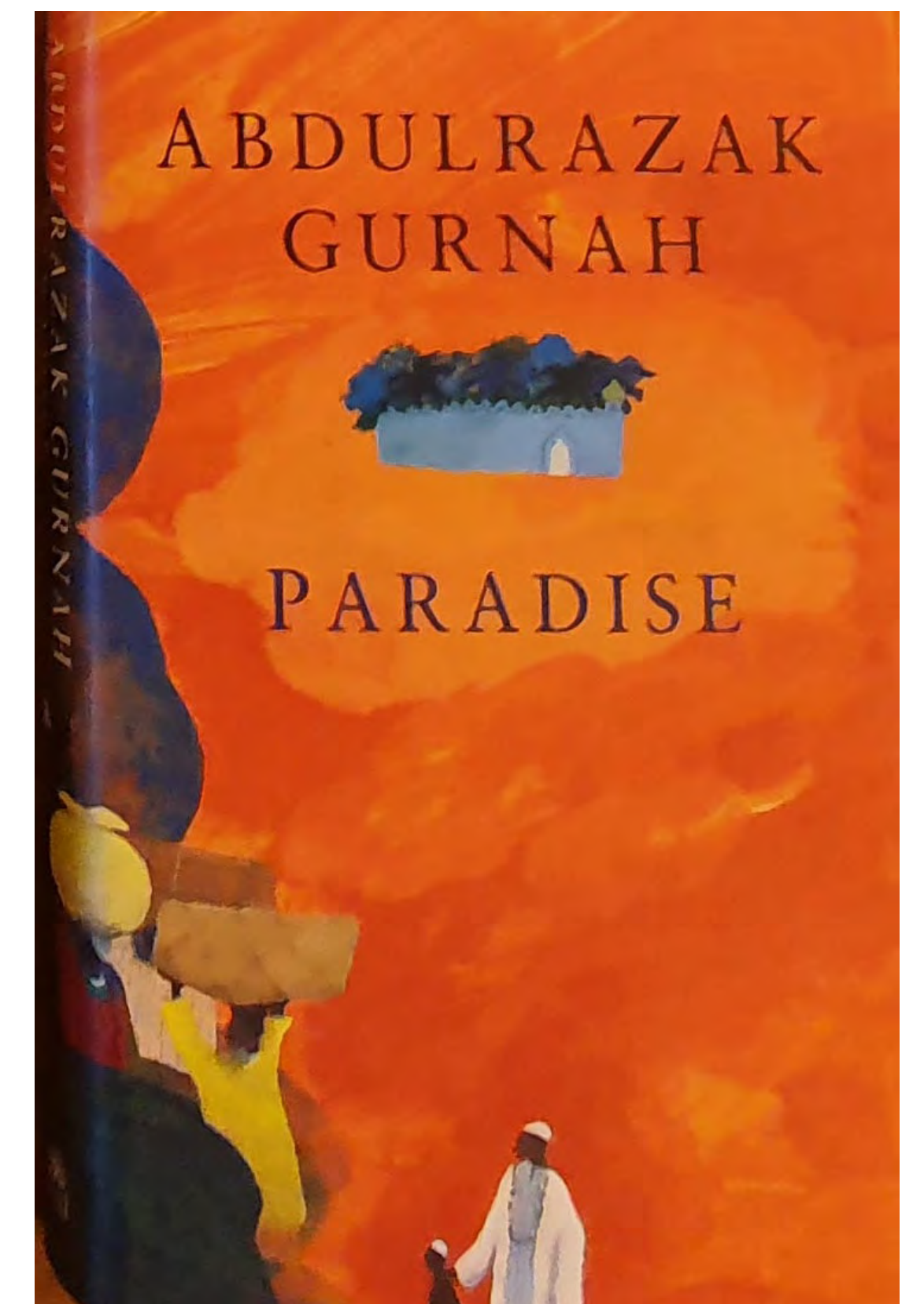
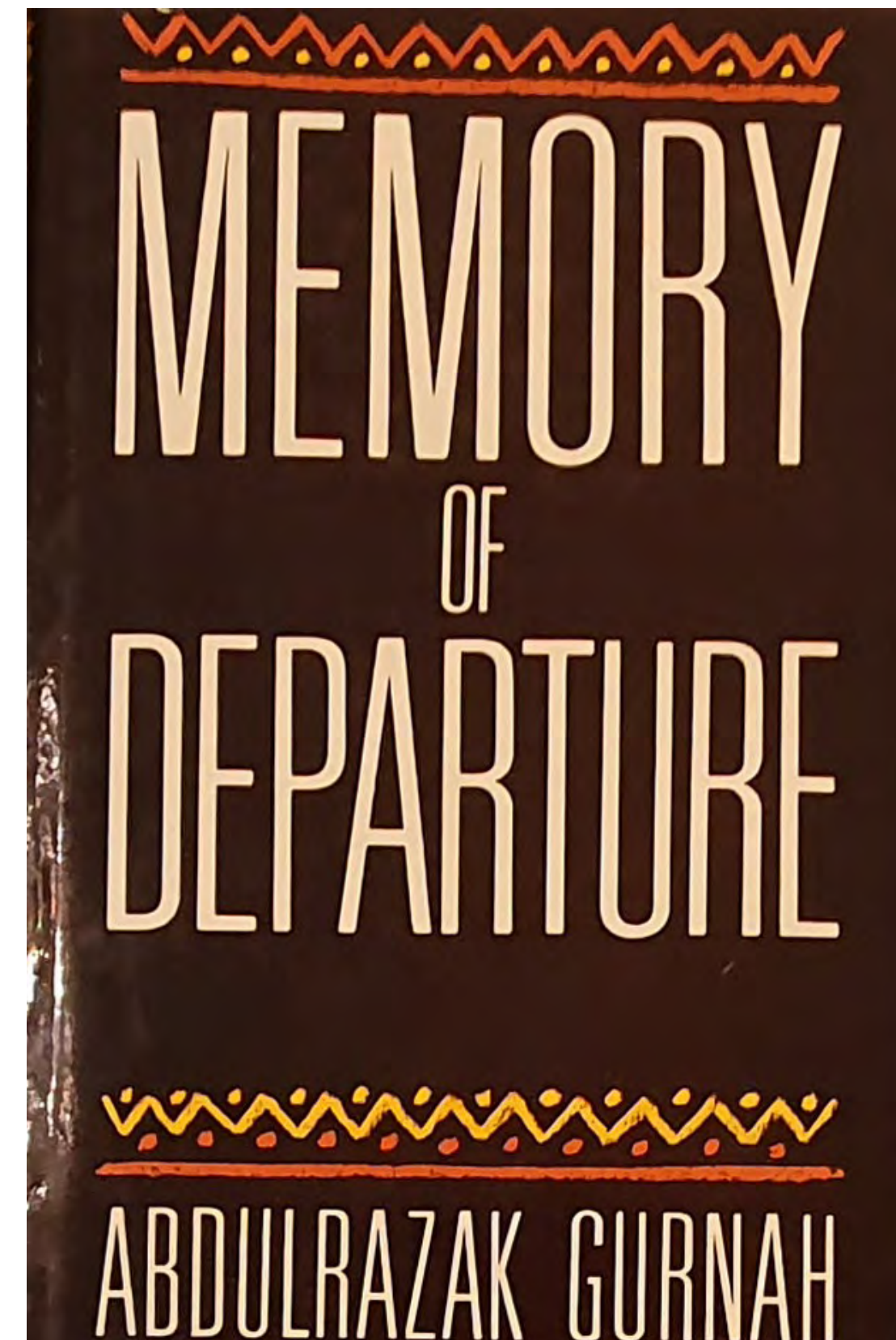
The 2021 literature laureate



Abdulrazak Gurnah was born on Zanzibar but emigrated to England at the age of eighteen.

Debut and breakthrough

In 1987, Gurnah made his debut with the novel *Memory of Departure*. His breakthrough as a writer came with the 1994 novel *Paradise*.



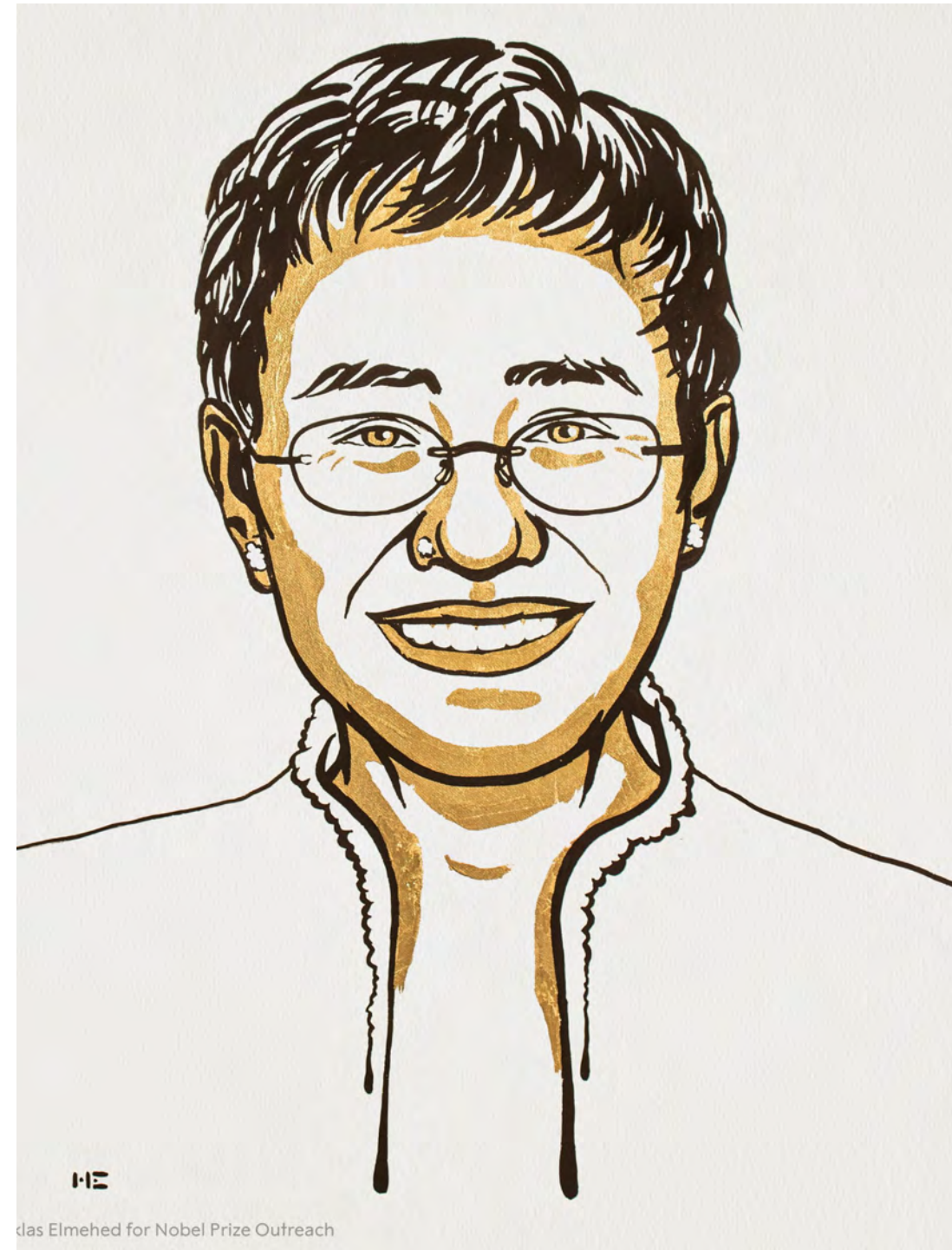
The 2021 peace prize



The prize calls attention to the work of journalists around the world and underscores the importance of free, independent and fact-based journalism.

The 2021 peace laureates

“for their efforts to safeguard freedom of expression, which is a precondition for democracy and lasting peace”



Maria Ressa
Born: 1963, Philippines



Dmitry Muratov
Born: 1961, Russia

Representative of all journalists who stand up for free speech



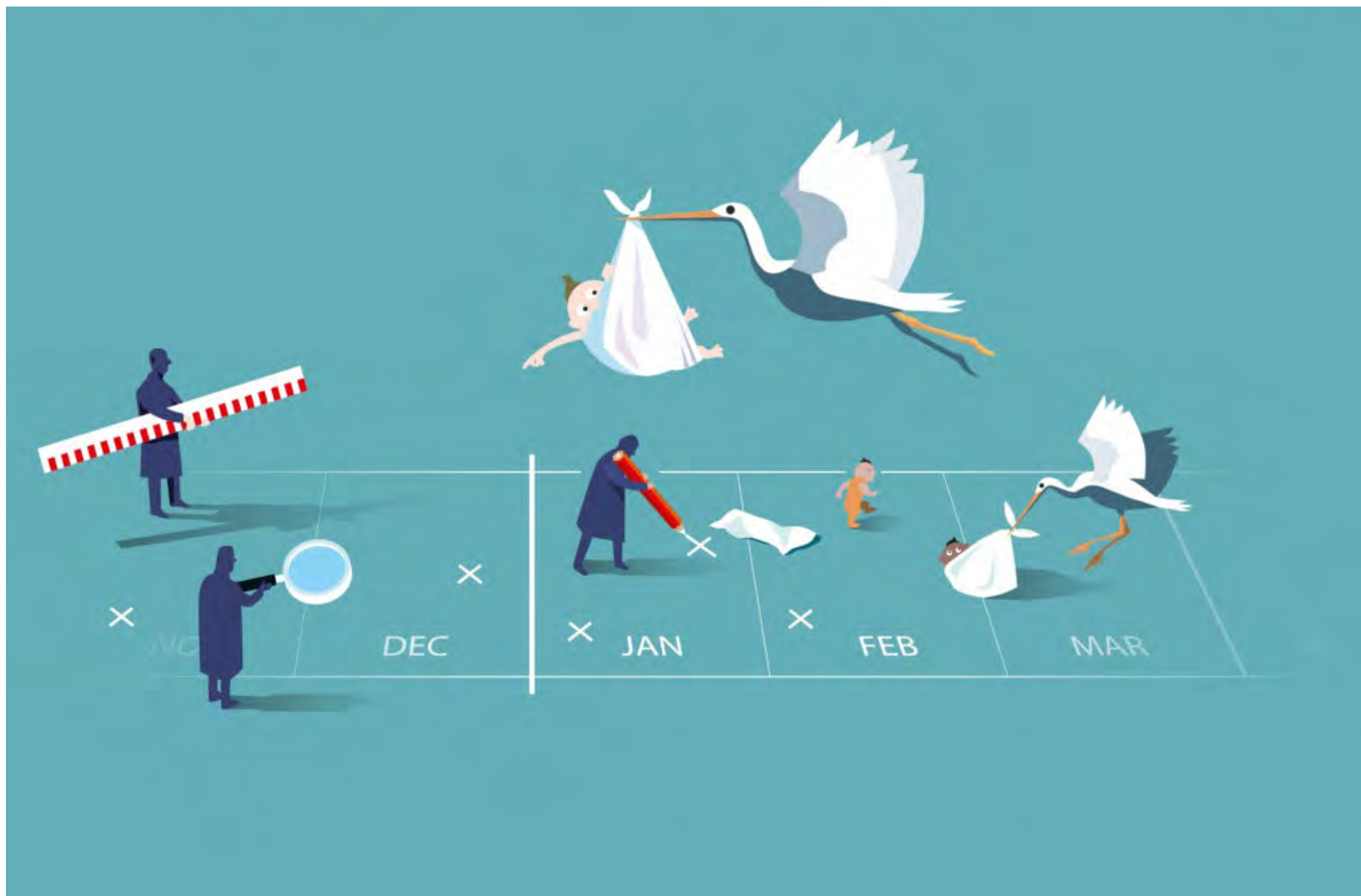
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The 2021 prize in economic sciences

The prize is awarded for research that shows how natural experiments can be used to answer important questions for society.



The 2021 economic sciences laureates

David Card "*for his empirical contributions to labour economics*"

Joshua D. Angrist and Guido W. Imbens "*for their methodological contributions to the analysis of causal relationships*"



David Card
Born: 1956, Canada

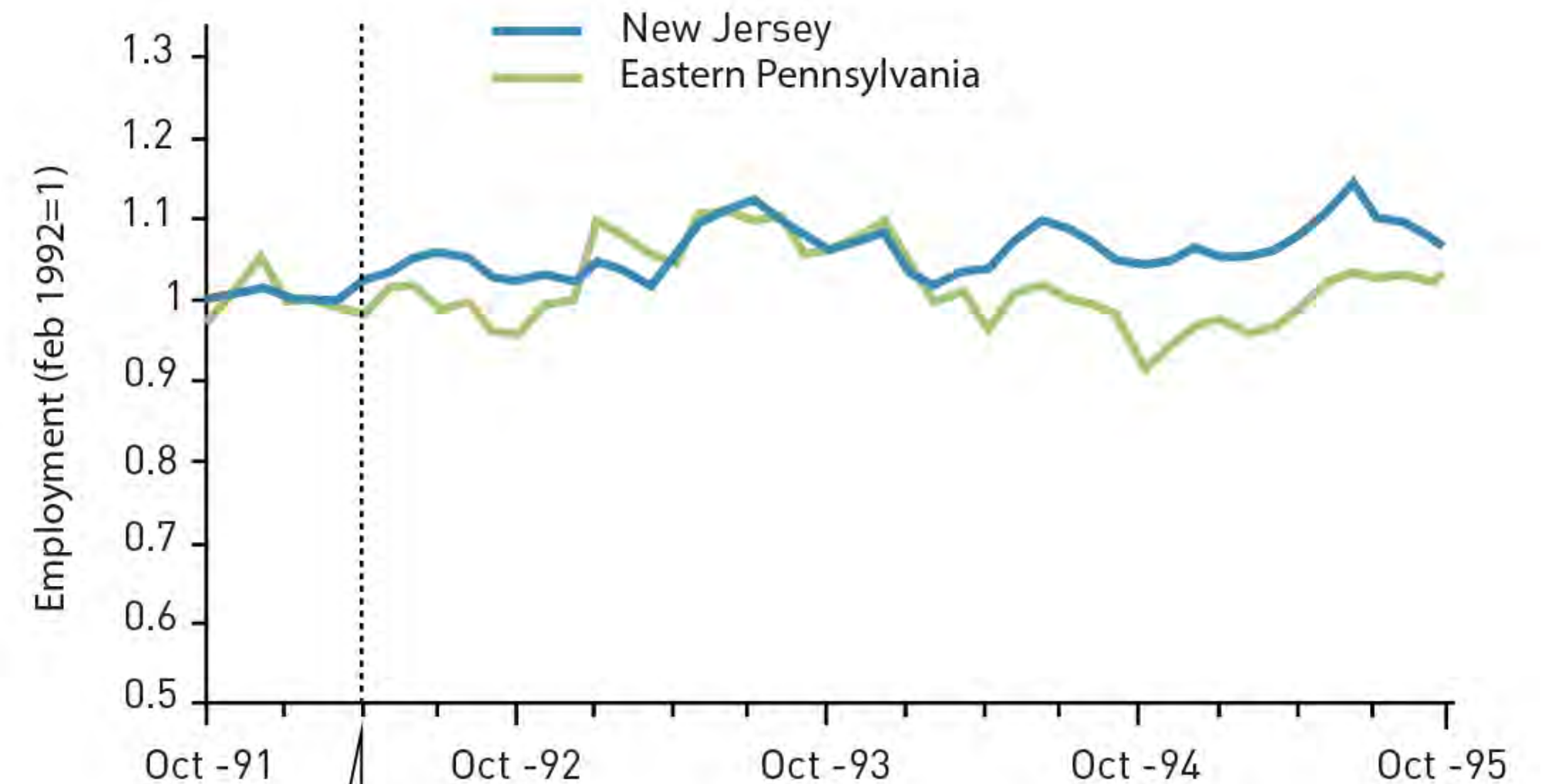
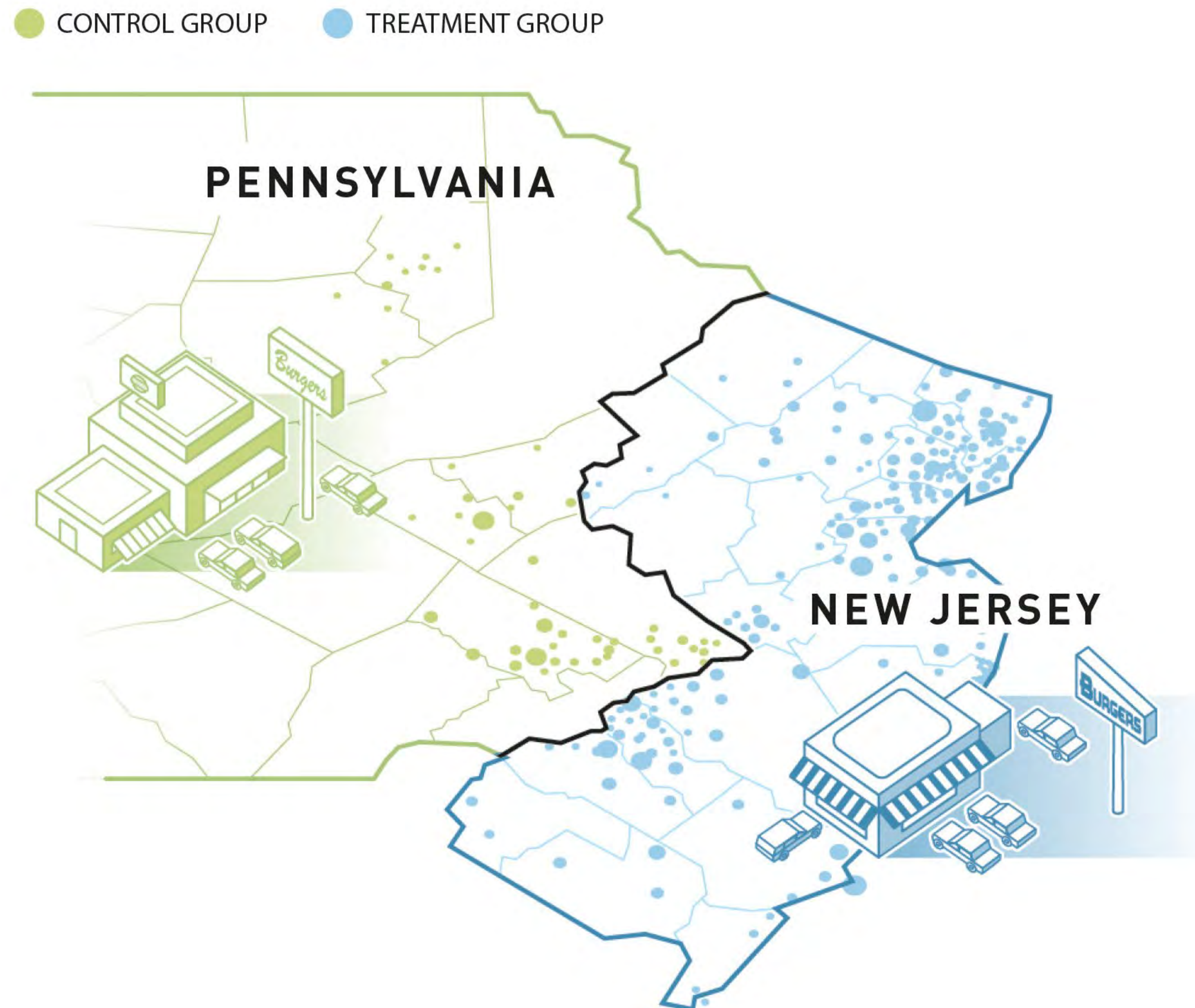


Joshua D. Angrist
Born: 1960, USA



Guido W. Imbens
Born: 1963, the Netherlands

Natural experiments are experiment-like situations that arise in real life.



1 April 1992: The hourly minimum wage in New Jersey was increased from 4.25 dollars to 5.05 dollars. Despite this, employment in New Jersey was not affected.

Awarding the Nobel Prize

On 10 December each year, the Nobel Prize is presented.



PHOTO: ALEXANDER MAHMOUD

THE
NOBEL
PRIZE

FOR THE GREATEST
BENEFIT TO
HUMANKIND

Nobel Prize Lessons