Bonus Question:

What scientific symbols make up your name?

Instructions: Use the alphabet key to match symbols and letters to solve your puzzle! Good luck!

Adenine is a nucleobase

Bacteria is a single-celled organism

Cytosine is a nucleobase

DNA is short for deoxyribonucleic acid

Eppendorf tubes can hold samples

Forensic scientists use tests to solve a crime

Guanine is a nucleobase

A **H**ypothesis is a testable statement investigated in science

An **i**Seq is the smallest Illumina sequencer

A **J**oule is a unit of energy

A **K**ilobase is one thousand bases

A **L**ab coat keeps you safe

Metagenomics is the study of genomic material from the environment

A **N**ucleobase is a building block of DNA

Oncology is the study, treatment, and diagnosis and prevention of cancer

A **P**ipette can transport liquid

Questions are always welcome

RNA is short for ribonucleic acid

Sequencing can help unlock the power of the genome

Thymine is a nucleobase

Uracil is a nucleobase found in RNA

A **V**ariant is an alteration in a DNA sequence

Water is essential to all living organisms

X-ray diffraction reviews the crystallinity and structure of samples

You are a scientist

Zoology is the study of the animal kingdom

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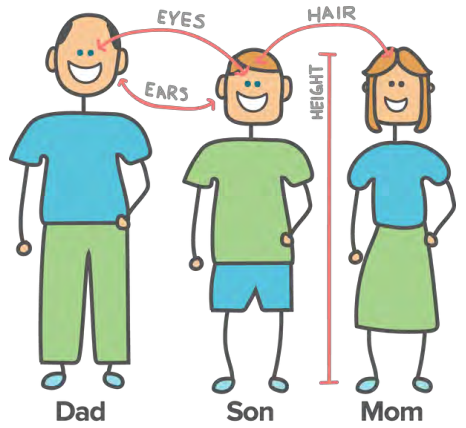
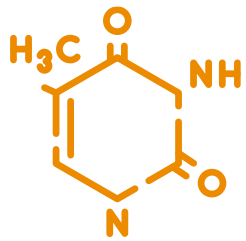
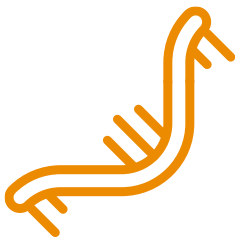
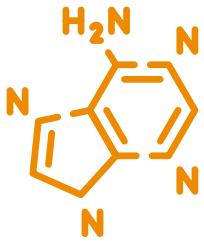
1

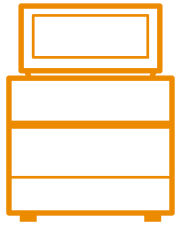
A _____ is a specific characteristic of an individual determined by genes and/or influenced by environmental factors. Some examples include your eye color, your hair color, or height

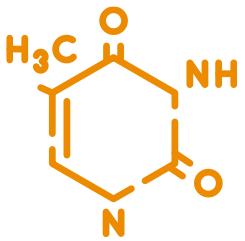












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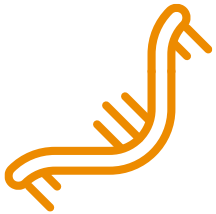
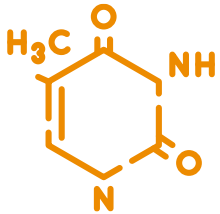
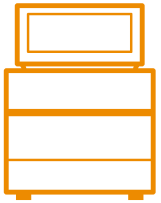
2

A _____ is a large, complex molecule that can be found in many parts of the body including muscle, bone, skin, and hair.



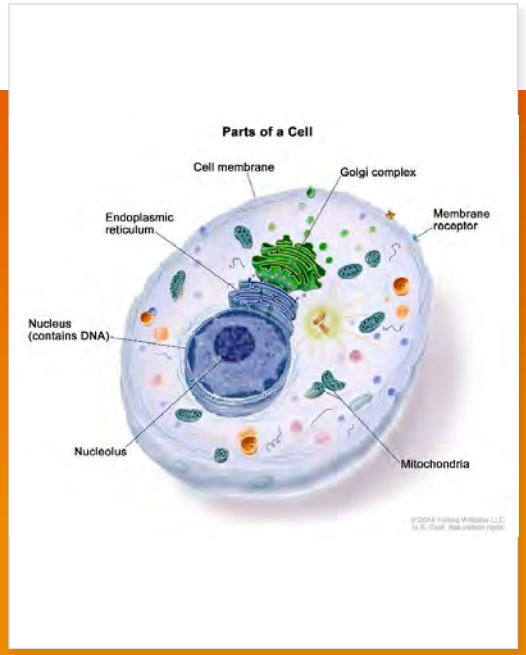


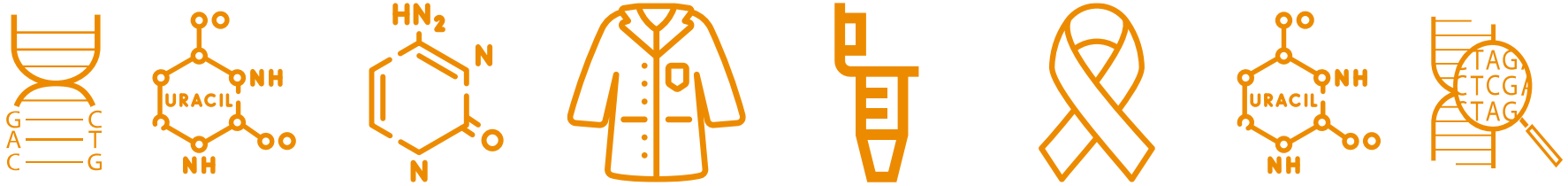


_____ _____ _____ _____ _____ _____ _____

3

A _____ is a membrane-enclosed organelle within a cell that contains chromosomes.

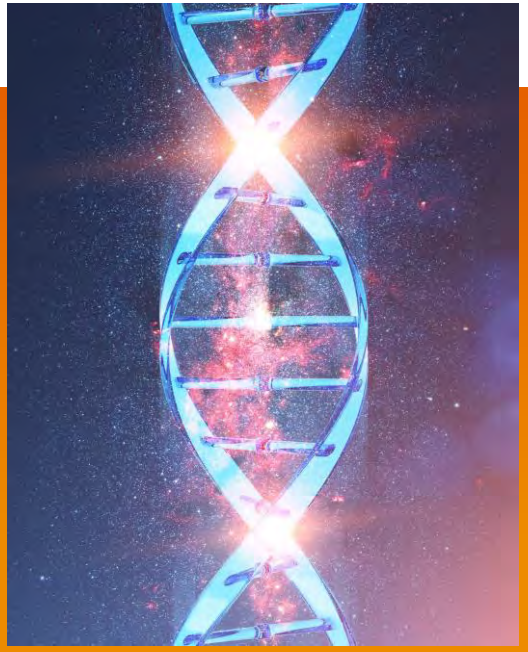


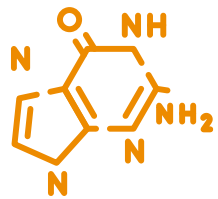


_____ _____ _____ _____ _____ _____ _____ _____

4

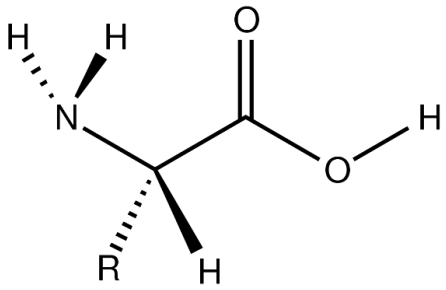
A _____ is the entire set of DNA instructions found within a cell. In humans, it consists of 23 pairs of chromosomes.

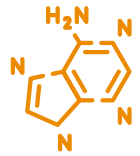


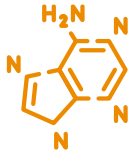


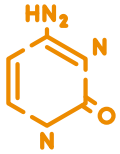
5

An _____ is the building block for proteins. There are 20 different kinds that can be created within the body or obtained through a person's diet.



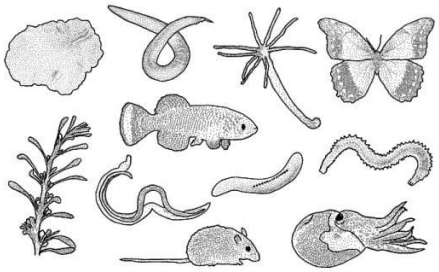




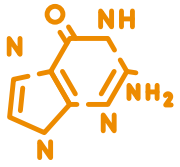


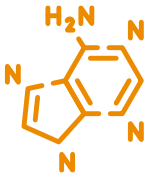
6

An _____ is any living system that functions as an individual. All of them are composed of cells and can be anything from a plant, animal, bird, insect, or microbe.



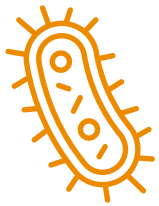


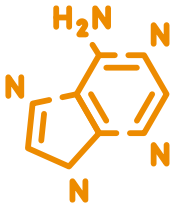


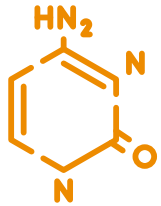


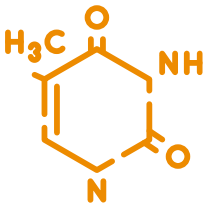

7

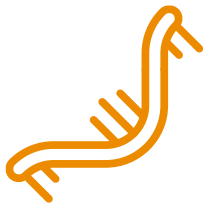
A _____ is a small single-celled organism. They can be found almost anywhere on Earth and are vital to the planet's ecosystems.

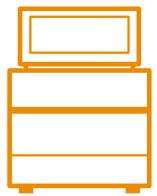


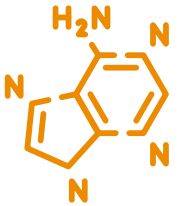








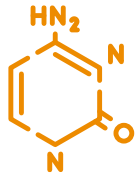


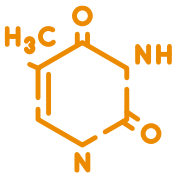


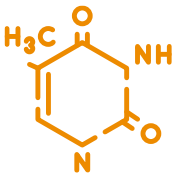
_____ _____ _____ _____ _____ _____ _____ _____

8

A _____ is also known as a polymerase chain reaction test, which can detect genetic material from a specific organism such as a virus.





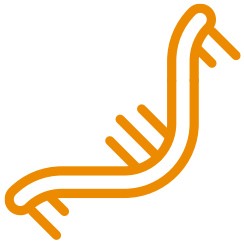


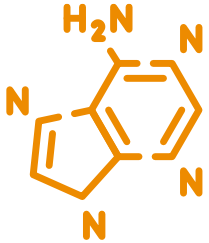
_____ _____ _____ _____ _____ _____ _____

9

_____ is genetic material that carries instructions for assembling amino acids, which tells your body how to make proteins.

DNA _____

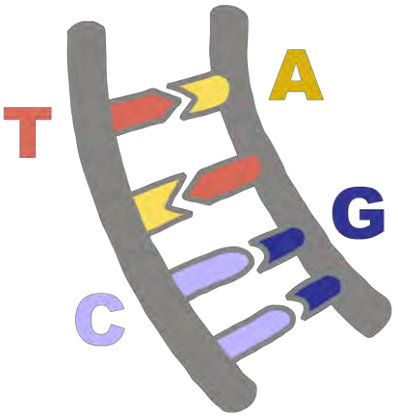


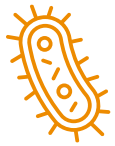


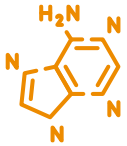
_____ _____ _____ _____

10

A _____ is a set of nucleobases that make up DNA and RNA. They are composed of adenine, thymine, guanine, and cytosine, which are considered the building blocks of life.







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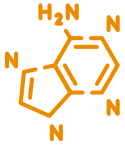

_____ _____ _____ _____

Answer Key:

1. Trait
2. Protein
3. Nucleus
4. Genome
5. Amino Acid
6. Organism
7. Bacteria
8. PCR Test
9. mRNA
10. Base Pair

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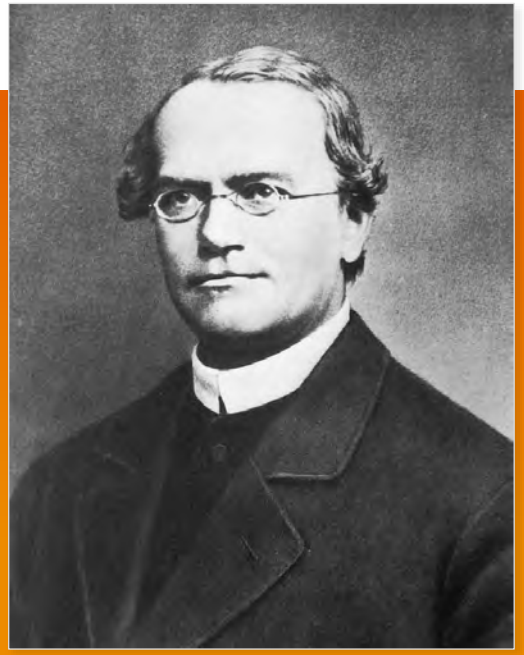
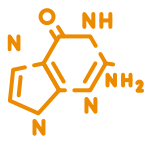
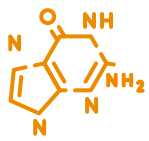
1



I am an Austrian scientist who studied pea plants to discover the laws of inheritance, or the passing of genetic traits from parents to offspring. I am also known as the "Father of Genetics".





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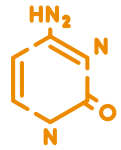
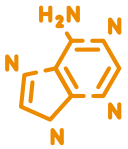
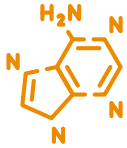
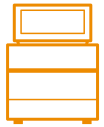
2

I am an English biologist who is best known for studying evolutionary biology, which studies the origin of life and how it adapts over time. I am also the author of a well-known book – **On the Origin of Species** that was published in 1859.









3

I am a British scientist best known for my contributions to the discovery of the molecular structure of deoxyribonucleic acid (DNA). My x-ray patterns of DNA molecules helped James Watson and Francis Crick to suggest the double-helix structure that is known today.

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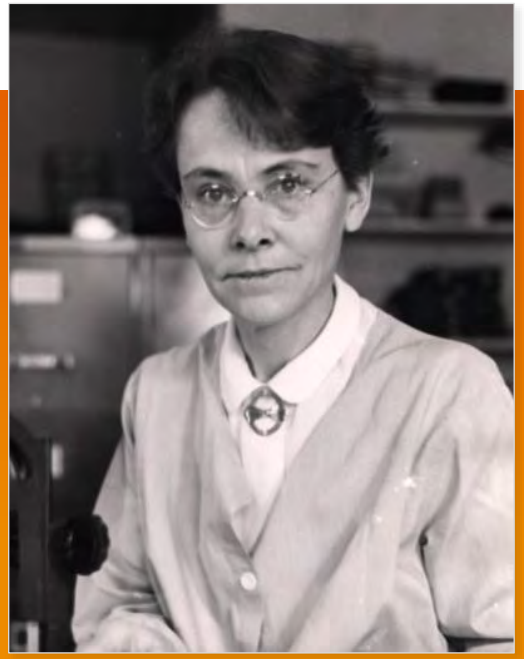
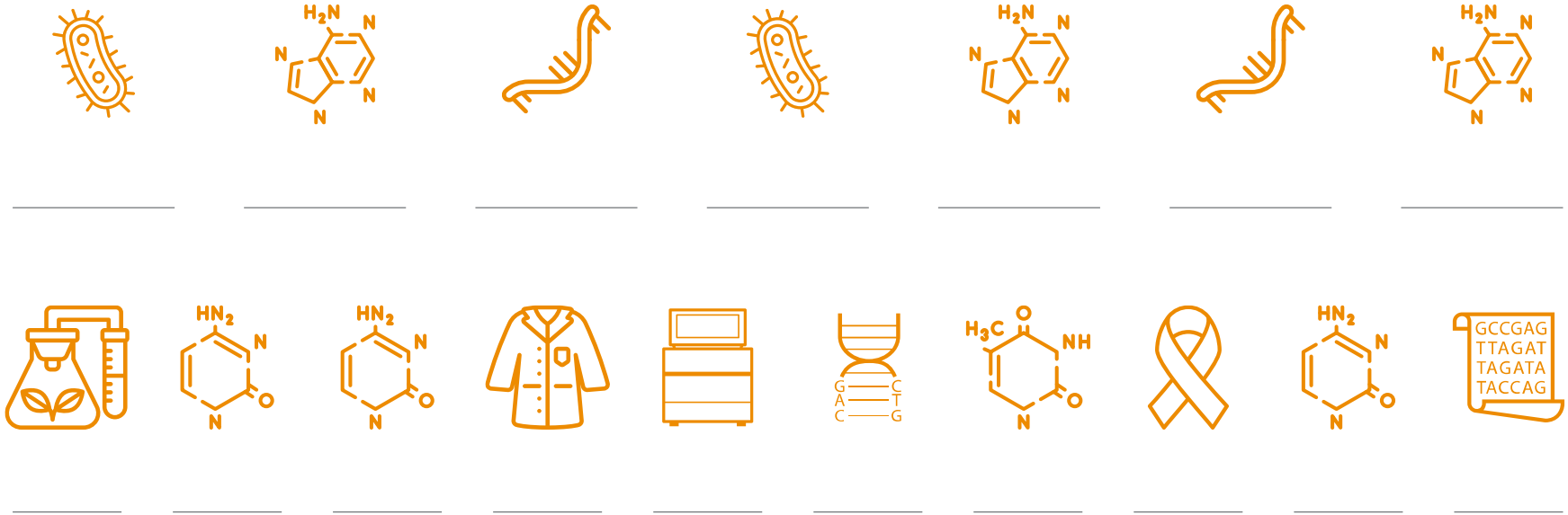
4

In 1944, I discovered that genes could change position within a chromosome also known as “jumping genes”. I am the first woman to receive an unshared Nobel Prize in Physiology or Medicine.





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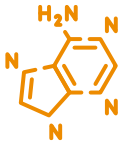
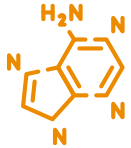
5

I am the first black woman to earn a PhD in chemistry in the United States. I helped uncover the structure of pyrimidines and purines. Some examples include cytosine, thymine, adenine, and guanine, which are the building blocks of DNA.

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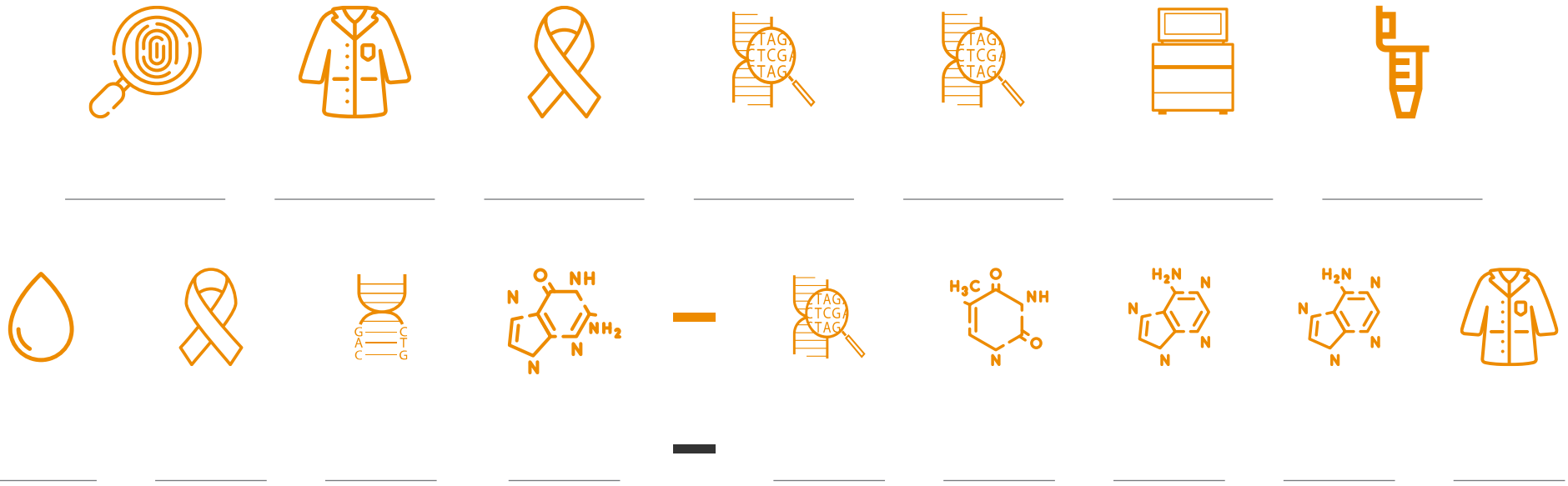
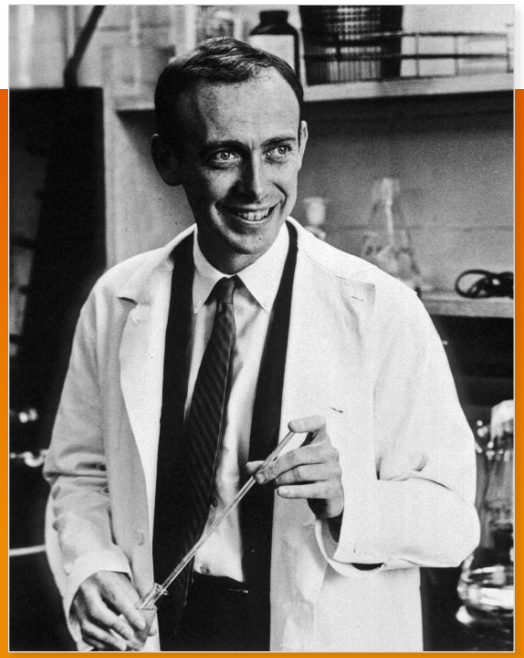
6

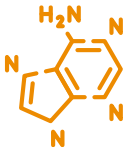
I am a Chinese-American virologist best known for discovering that human retroviruses can be carcinogenic, or able to cause cancer. I was the first scientist to clone human immunodeficiency virus (HIV) and my work helped show that HIV causes acquired immunodeficiency syndrome (AIDS).



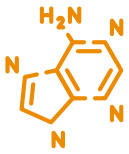
7

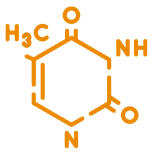
In 1953, I co-authored an academic paper proposing the double helix structure of the DNA molecule. I shared the 1962 Nobel Prize in Physiology or Medicine with Francis Crick and Maurice Wilkins.



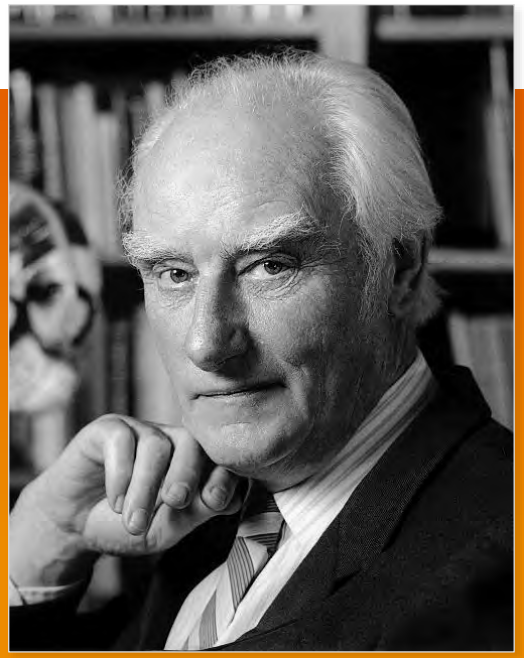


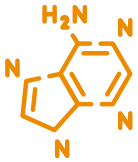


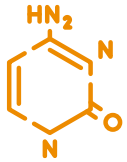

8

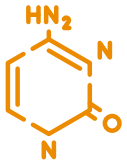
I am an English molecular biologist who helped identify the double helix structure of DNA. In 1953, I co-authored an academic paper proposing the double helix structure. This led me to share the 1962 Nobel Prize in Physiology or Medicine with James Watson and Maurice Wilkins.

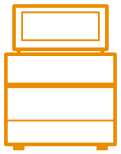
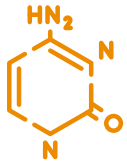






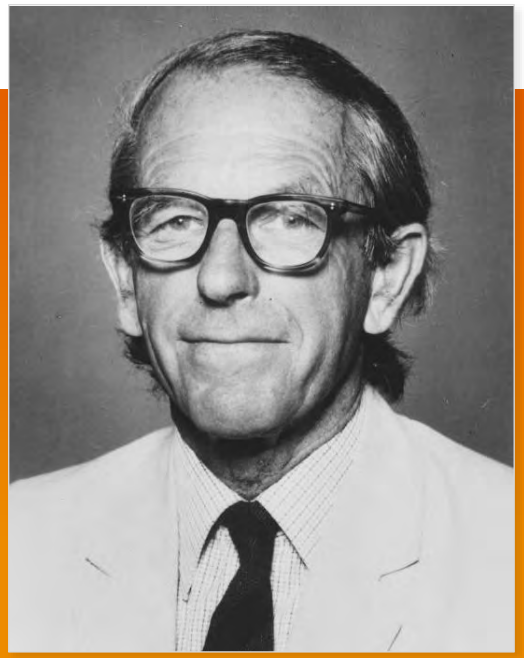


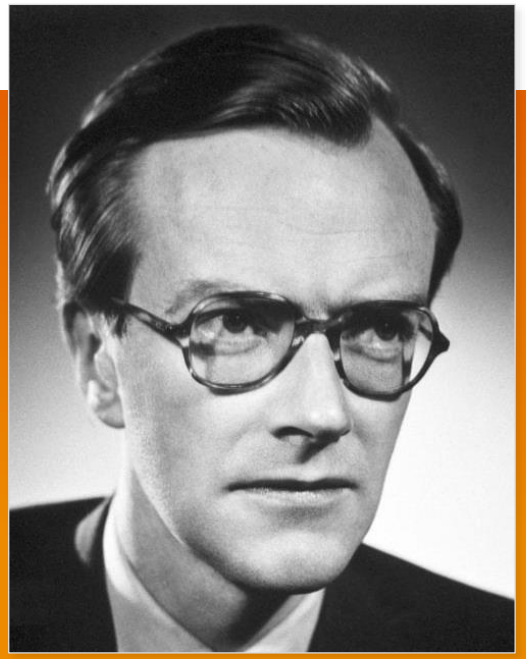
9

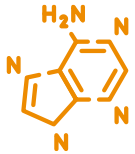
I am an English biochemist and a two-time Nobel prize winner. In 1958, I won the Nobel Prize in Chemistry for determining the structure of insulin. In 1980, I won the same prize for developing a method to identify the base sequence of nucleic acids.

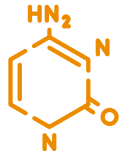


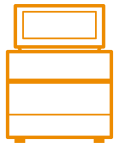
10

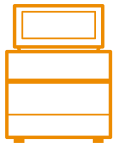
I am a New Zealand born British biophysicist and am best known for producing the first clear x-ray images of DNA. I shared the 1962 Nobel Prize in Physiology or Medicine with Francis Crick and James Watson.











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Answer Key:

1. Gregor Mendel
2. Charles Darwin
3. Rosalind Franklin
4. Barbara McClintock
5. Marie Daly
6. Flossie Wong-Staal
7. James Watson
8. Francis Crick
9. Frederick Sanger
10. Maurice Wilkins