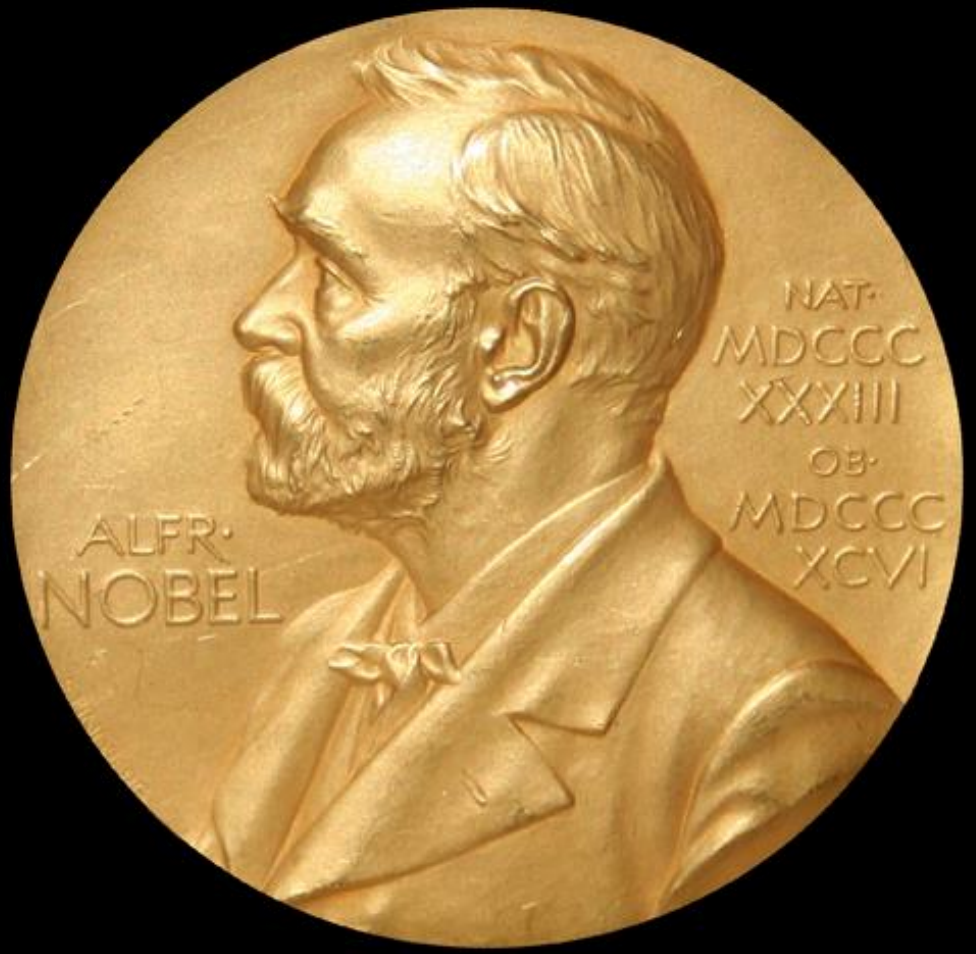
The 2017 Nobel Prize

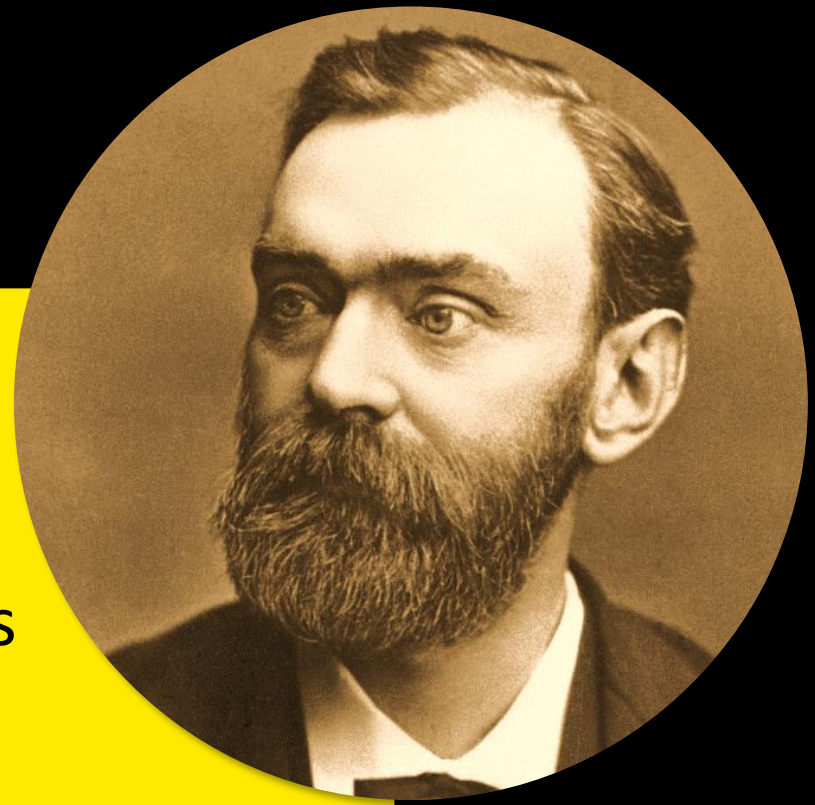
Chemistry



NobelCenter

Alfred Nobel

(1833–1896)



As a child, Alfred dreamed of becoming a writer, but his father had other expectations of him and his brothers.

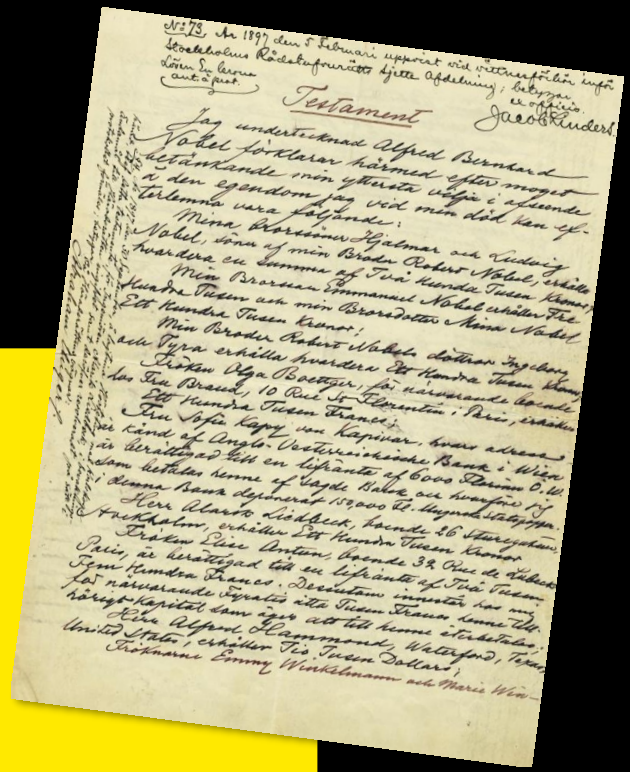
Dynamite

1867

Alfred Nobel invented dynamite, and during his life he managed to earn a lot of money from this invention.

The will

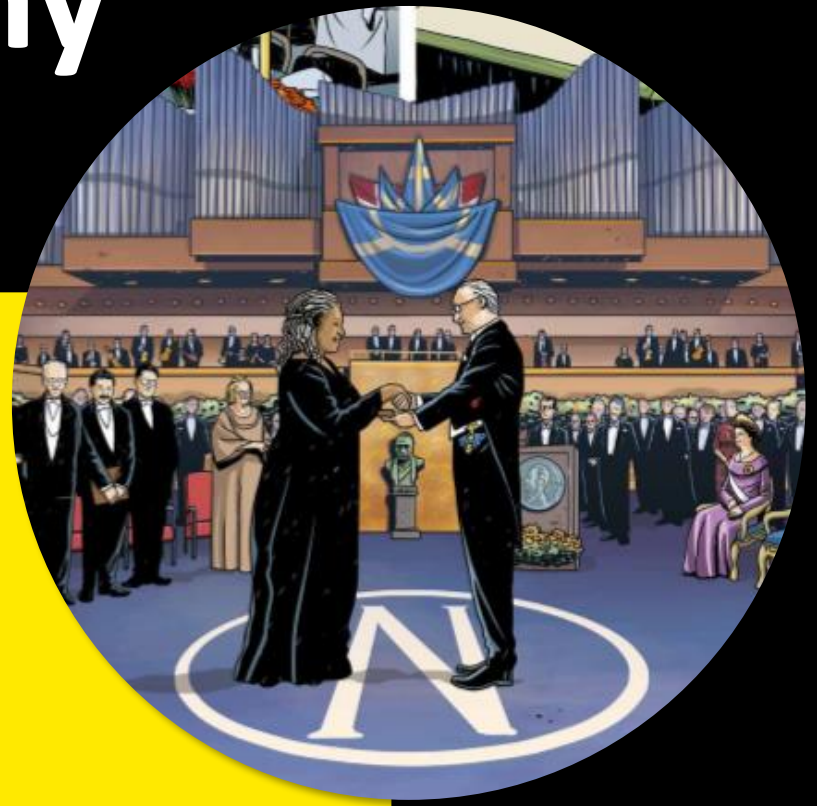
Alfred Nobel died on December 10, 1896


Testament

According to the will of Alfred Nobel, a yearly Prize should be awarded in five categories: physiology or medicine, physics, chemistry, literature and peace. And it should reward those who “shall have conferred the greatest benefit to mankind.”

Prize Award Ceremony

Nobel Day, December 10 each year



The Prize consists of a medal, a diploma and a sum of money. Sweden's King Carl XVI Gustaf presents the medal and diploma to each Laureate at Stockholm Concert Hall.

The Nobel Prize in Chemistry

This Prize rewards important discoveries or improvements that provide new knowledge about the composition of materials, how they are created and how they change due to chemical reactions.

Examples of earlier Laureates

The Nobel Prize in Chemistry

Discovery of radioactive elements, 1911

Marie Curie

Structure of penicillin and insulin, 1964

Dorothy Crowfoot Hodgkin

Jacques Dubochet, Joachim Frank and Richard Henderson

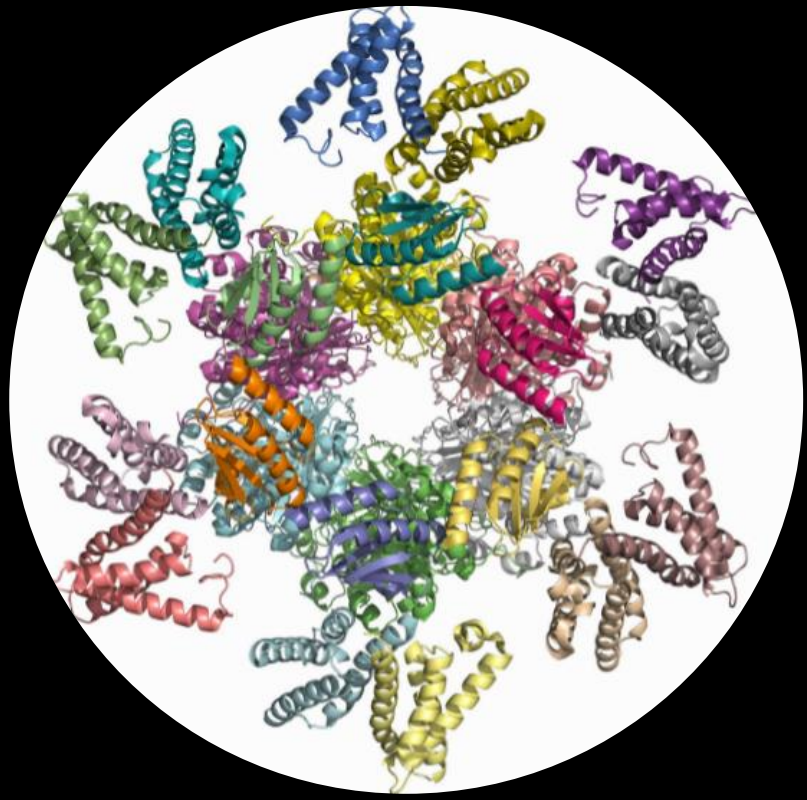
The 2017 Nobel Prize in Chemistry

For developing cryo-electron microscopy for the high-resolution structure determination of biomolecules in solution

Biomolecules

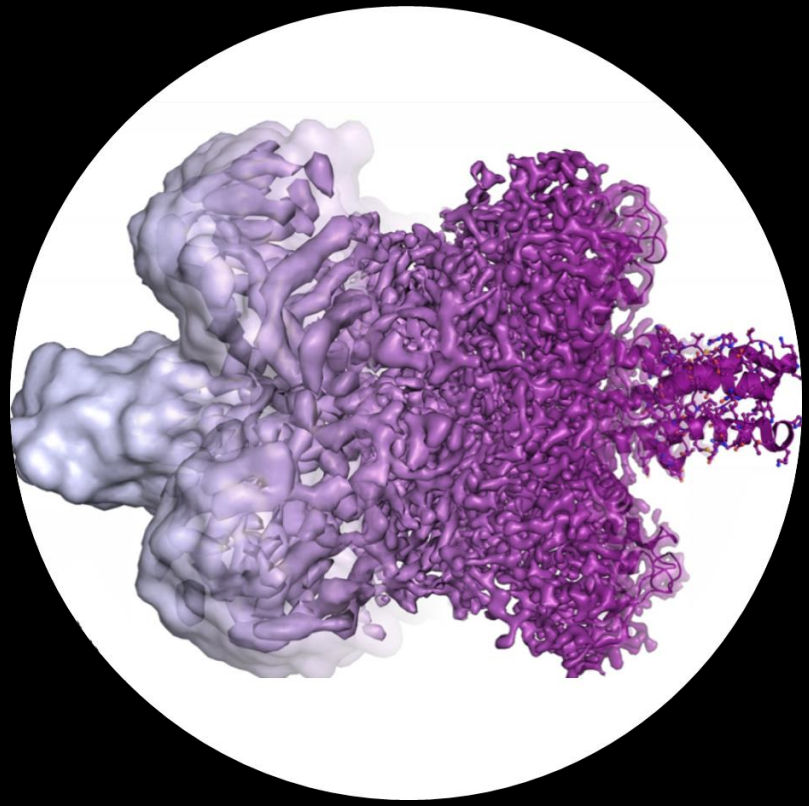
The important protein molecules in the body are very tiny and difficult to study.

Their appearance also changes if they are not in some kind of liquid.



The discoveries

The Laureates developed a way to freeze proteins extremely fast and a method that uses a large number of two-dimensional images to create a sharp three-dimensional image with the help of computer programmes.



The benefits

Now that there are better methods for understanding how the molecules in the body function, we can also improve our knowledge of why they sometimes fail to function as they should. This will help us to develop new medicines, for example.

Knowledge leads to new advances.