

# CHEMISTRY ADVENT 2018

18

1950

1952

1954

1956

1958



**ROSALIND FRANKLIN**

+ 1920-1958



**EDITH FLANIGEN**

🇺🇸 1929-PRESENT



**MILDRED COHN**

🇺🇸 1913-2009



Best known for her work in the field of X-ray crystallography



Created X-ray diffraction images of DNA, which led to the discovery of DNA's double helix structure



Was not included in the Nobel Prize awarded for the discovery of the structure of DNA, as the prizes are not awarded posthumously



Worked on 'molecular sieves', compounds with molecule-sized pores that can separate complex mixtures



The zeolite molecular sieves Flanigen developed helped reduce costs and wastes from refining crude oil, and also found many other applications



Developed a synthetic emerald used in laser predecessors and jewellery



Used nuclear magnetic resonance (NMR) to study reactions in the body



Using NMR, studied the reactions of adenosine triphosphate (ATP), the compound which functions as a carrier of energy in all living organisms



Used isotopic tracers to study how sulfur-containing compounds are broken down in the body