

Sources about penicillin (from Edexcel SHP specimen paper 2)

Source A A letter from Sir Almroth Wright published in *The Times* newspaper, 30 August 1942. Sir Almroth was head of the department at St Mary's Hospital in which Fleming worked.

In your article on penicillin yesterday, you did not give the title of discoverer of penicillin. The credit should be given to Professor Alexander Fleming of this research laboratory. He is the discoverer of penicillin. He made the original suggestion that this substance might prove to have important uses in medicine.

Source B From a *Social and Economic History of Britain* by John Robottom, 1986.

In the early twentieth century, a German scientist discovered that certain dyes could be used as medical drugs to cure diseases. By the 1930s, scientists in several countries had found several sulpha drugs, the sulphonamides. But each sulphonamide usually worked for only one type of disease. The key to making a drug to cure most illnesses lay hidden in Alexander Fleming's notebooks from 1928 to 1938.

Source C From a letter from Howard Florey to the Medical Research Council, 19 June 1944.

We have been irritated to see the campaign carried on from St Mary's to credit Fleming with all the work done here at Oxford. He is being put over as "the discoverer of penicillin" (which is true). But it is also suggested that he did all the work leading to the discovery of its chemotherapeutic uses (which is not true). My colleagues here feel that things are going much too far. They are upset at seeing so much of their own work going to glorify or even financially enrich someone else.

Source D From an article about penicillin in *Time* magazine, published in the USA, May 1944.

The man who made possible this relief of human suffering is Alexander Fleming. He is a short, quiet Scot with somewhat dreamy blue eyes. It will be hard to say who the great men of the twentieth century will be, but Dr Alexander Fleming will certainly be one of them. Penicillin is already big business, yet Dr Fleming (who discovered it) and Dr Florey (who made it tick) have got praise out of it but no money.

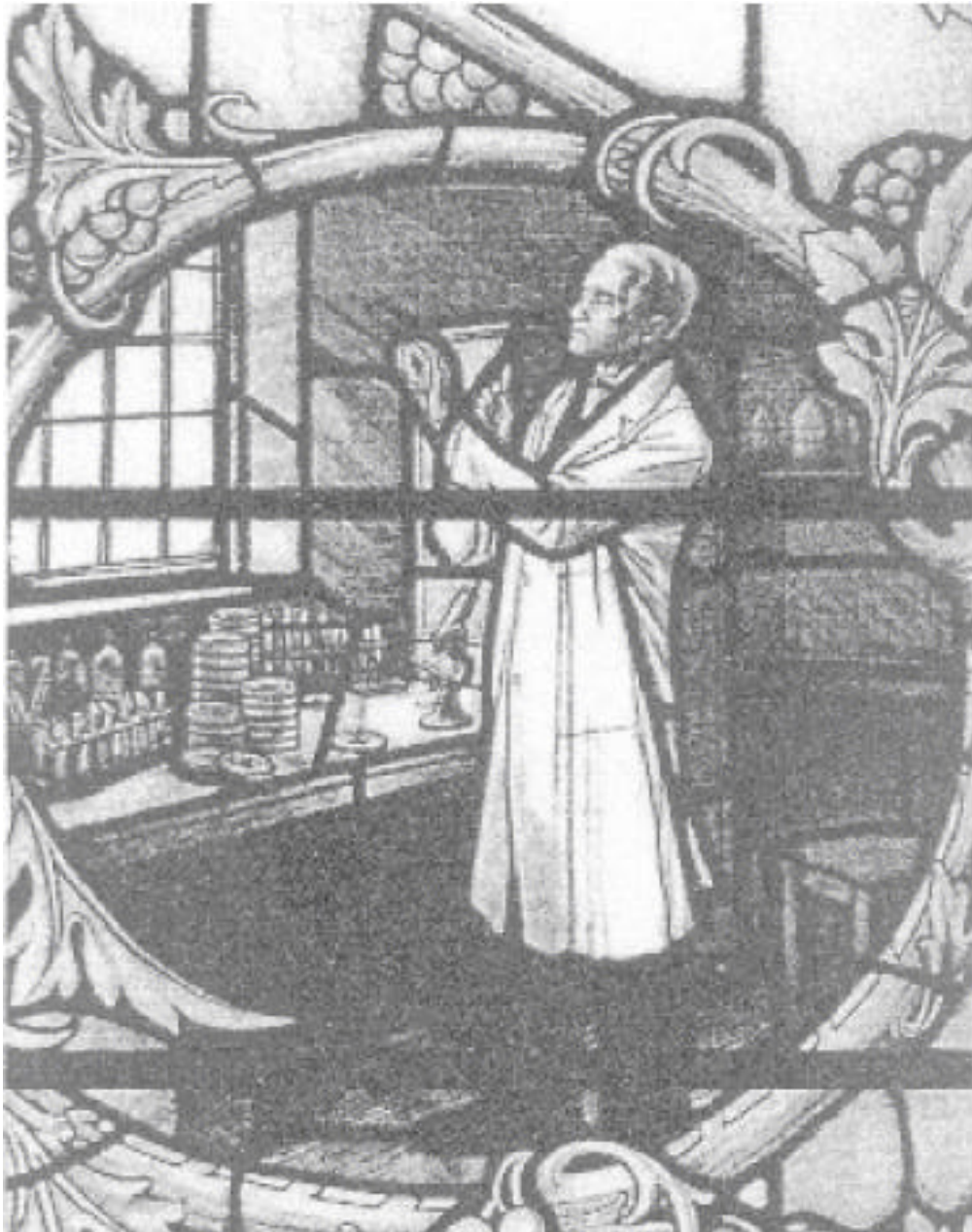
Source E From a GCSE History text book, *A History of Medicine*, published in 1988.

A Scottish doctor called Alexander Fleming had seen hundreds of cases of soldiers dying in the First World War after minor wounds became infected. He made up his mind to stop these deaths from occurring in future. After the First World War, Fleming worked in a hospital laboratory where he studied the sorts of germs that had caused the battlefield deaths. One day Fleming found that some mould was growing in one of the dishes and was killing the germs. He also found that preparations made from this mould killed most sorts of germs in the human body. This was the basis of a new drug known as penicillin. By the end of 1945, it had saved the lives of thousands of soldiers in the Second World War.

Source F From the book *Science: Invention and Discovery in the 20th Century*, by Trevor Williams, 1990.

In 1928, Alexander Fleming noticed that around the mould the bacteria had been destroyed. However, such behaviour by micro-organisms had been well-known since the late nineteenth century. The word "antibiosis" was first used in 1899 to describe this action. There was no reason to suppose that this new example was different from others already known. No further research on penicillin of any consequence was done until 1939. In that year, Howard Florey and Ernst Chain began a general study of anti-biosis.

Source G Part of stained glass window made in 1952 for the church near St Mary's Hospital in London. The church guidebook says "Sir Alexander Fleming who discovered penicillin in 1928 at St Mary's Hospital."



Questions for Alexander Fleming

1) How do you feel about being credited as the 'discoverer of penicillin'?

Questions for Alexander Fleming

2) How did your experiences in the First World War inspire you?

Questions for Alexander Fleming

3) Don't you just think that you were a bit lucky?

Questions for Alexander Fleming

4) How did you feel when you were awarded the Nobel Prize?

Questions for Howard Florey

1) What are your thoughts about Alexander Fleming?

Questions for Howard Florey

2) What were the main factors that helped you to develop Penicillin and how did they help?

Questions for Howard Florey

3) How would you describe your character?

Questions for Howard Florey

4) How did you feel when you were awarded the Nobel Prize?