

[1-2] Read the following and answer the questions.

The identification of penicillium mold by Dr. Alexander Fleming in 1928 is one of the best-known stories of medical discovery, not only because of its accidental nature, but also because penicillin has remained one of the most important and useful drugs, and its discovery triggered invaluable research into a range of other antibiotic drugs.

While researching the flu in the summer of 1928, Dr. Fleming noticed that some mold had contaminated a sample of bacteria in one of his petri dishes. Instead of throwing out the ruined sample, he decided to examine it more closely.

Fleming had reaped the benefits of taking time to look into contaminated samples before. In 1922, Fleming had accidentally shed one of his own tears into a bacteria sample and noticed that the spot where the tear had fallen was free of the bacteria that grew all around it. This discovery raised his curiosity. After conducting some tests, he concluded that tears contain an antibiotic-like element that could prevent bacterial growth.

Six years later, the mold Fleming observed in his petri dish reminded him of this first experience with a contaminated sample. The area surrounding the mold growing in the dish was clear, which told Fleming that the mold was lethal to the potent staphylococcus bacteria in the dish. Later he noted, “But for the previous experience, I would have thrown the plate away, as many researchers have done before.”

Instead, Fleming took the time to isolate the mold and find out that it was a kind of penicillium. After many tests, Fleming realized that he had discovered a non-toxic antibiotic substance capable of killing many of the bacteria that cause minor and severe infections in humans and other animals. His work, which has saved countless lives, won him a Nobel Prize in 1945.

(출처: <http://www.pbs.org/wgbh/nova/body/accidental-discoveries.html>)

1 What does the underlined part, the previous experience, refer to in the passage?

- ① the mistakes of other researchers
- ② the experience of studying the flu
- ③ the experience of contaminating samples
- ④ the discovery of antibiotic effects of tears

2 Which is the best title for the passage?

- ① Uses of Penicillin
- ② Accidental Discovery of Penicillin
- ③ Modern Research on Antibiotic Substances
- ④ Importance of Keeping Samples Uncontaminated