Top Science Lab Accidents

1. Read the text and answer the questions given.

As scientific discoveries advance the field of chemistry, scientists have become more aware of the health risks laboratory work entails for both lab workers and the general public. Safeguards have been put in place to minimize the chance of a laboratory accident or accidental exposure. On a global level, laboratory owners understand that lab safeguards exist for the safety of all of the individuals that work in the lab. However, the longer a lab goes without an accident, the easier it is to forget that there are safety protocols. Safety becomes an assumed given. Until, in a flash, the unthinkable happens.
The cases below highlight some of the different factors that, combined, can turn the laboratory from a scientific refuge into a chamber of horrors.

August, 1967
Behringwerke, Germany
In 1967, a pair of monkeys were being transported from Uganda to Germany for polio research. The monkeys were carrying a virus that had never been seen before. Soon, over thirty lab workers fell ill with fever, diarrhea, vomiting and internal bleeding. Of these, nine died from their exposure to the disease. Because the disease had not been seen before the Marburg outbreak, it is now called the Marburg Virus. The virus is still active, with the worst outbreak occurring in Angola in 2005, resulting in 252 cases with a 90% mortality rate.

August, 1996
Dartmouth College, Hanover
While working with a small amount of dimethylmercury, Karen Wetterhahn accidentally spilled a few drops onto her gloved hand. Wetterhahn was a chemistry professor competent in safety protocols. She removed her gloves and washed her hands. Less than a year later, she died from mercury poisoning. Scientists realized after Wetterhahn's death, that latex gloves provide no protection from the effects of dimethylmercury. This realization helped researchers to understand the cause of earlier deaths from dimethylmercury poisoning as well. Wetterhahn's death also helped scientists to develop stronger safety protocols when dealing with dimethylmercury, including wearing two pairs of thicker laminate gloves when handling the substance.

June, 2012
McLean Hospital, Belmont
In late May of 2012, a freezer at the Harvard-affiliated McLean Hospital failed but did not set off any alarms alerting staff that the freezer was not functioning. The freezer was checked twice a day by lab technicians and they believed it was functioning normally. The contents of the freezer defrosted and deteriorated in the weeks before the malfunction was discovered. The freezer in question contained 147 donated brains for the Harvard Brain Tissue Resource Center, including brains with diseases such as autism, Parkinson's disease, Alzheimer's disease, or psychiatric illnesses such as bipolar disorder or schizophrenia. Researchers estimated that the loss could set back autism research by more than a decade.

Source: biospace.com

a. Who can be affected by lab accidents?

b. In your opinion, which of these accidents was the worst? Why?

c. Could these accidents have been prevented? How?

2. True (T) or false (F)?

a. The longer no accidents happen, the easiest it is that one occurs.
b. The Marburg outbreak was the worst one ever.
c. Karen Wetterhahn's accident was the result of irresponsibility and incompetence.
d. Karen Wetterhahn's death was somehow helpful.
e. When lab technicians noticed what had happened, there was no turning back.
f. We may still be suffering the results of the McLean Hospital's accident.

3. Find in the text a word or expression that means the following:

a. Something that is designed to protect people from harm, risk or danger. (1)

b. Very quickly and suddenly. (1)

c. A sudden rise in the incidence of a disease. (2)

d. A very small amount of liquid that forms a round shape. (3)

e. To harm or kill a person or an animal by giving them venom. (3).

f. Delay. (4)