

CLOSE ENCOUNTERS OF THE LAB KIND

THE SANTAYANA REPORT

George Santayana was a Spanish-American philosopher, essayist, poet, and novelist. In 1905, he penned the famous aphorism “those who cannot remember the past are condemned to repeat it.” More than a century later, the saying reverberates with professionals the world over. The following is a summary of a recent incident at Columbia University. The information presented is intended to provide awareness and help readers plan against the occurrence of a similar situation in their laboratory or work area.

Hats Off to Bunsen Burners

A common practice for research with sensitive microorganisms on the open benchtop is the use of a Bunsen burner, where a convection of hot air is utilized for sterilization. While we’ve written about Bunsen burner safety in our *SafetyMatters* newsletter in [2011](#), [2014](#) and earlier in [2015](#), a recent incident sheds new light – through a researcher’s hat.

Having pipetted 10 μ L of the bacteria *p. aeruginosa* onto an agar plate, a researcher waits for the colony to dry. After 20 minutes, the researcher examines the plate, which necessitates coming up close to the plate and turning it in the light. As the researcher described, it was a “comical moment” when they noticed their head felt warm, removed the hat and saw yellow-orange flames on it! To this the researcher promptly smacked the hat on the laboratory bench several times and smothered the fire successfully. With no damage to their person or the lab, they immediately shared the moment with group members and still keeps the hat to this day as a reminder.



Lessons Learned

- This incident was luckily a small one. The researcher had a brief surprise of alarm, but no one was injured and no damage was done. Furthermore, the researcher uses the example to advocate for safety in their lab. The hat now serves as a visual reminder for the group to note where their Bunsen burners are and whether they are on or off.
- Remember to keep Bunsen burners away from overhead shelving, equipment, or light fixtures. Remove all papers, notebooks, combustible materials, and excess chemicals from the area.
- Take care to tie back long hair and avoid loose clothing and hanging jewelry, as well as other accessories, while working with a Bunsen burner. While the researcher in this example needed to have the Bunsen burner on, many times incidents with Bunsen burners occur when they are left on after the use period is over.

For further information, or to view previous Santayana Reports, please visit our [lessons learned website](#). For any other safety related matter, please contact the [EH&S office](#).