A New Year’s Project with Larry the Robot

JONNATHA MAYBERRY, Associate Editor, Chem.Info

By JONNATHA MAYBERRY, Associate Editor, *Chem.Info*

Over the years, the majority of my New Year’s resolutions have been health-related, with varying levels of success. Some years I have run on the treadmill for a few months, only to ditch that good habit in favor of watching *Seinfeld* re-runs. But other years, I succeeded in eating more fruits and vegetables, going to the gym more frequently or simply standing up to stretch more often.

For many of us, trying to make healthier choices for ourselves is challenging enough. But for some, every workday revolves around improving the health of others. When I envision such a person, I often picture a doctor or a nurse, but in all actuality, the work that goes on behind the scenes is equally important — and often quite unexpected.

Around the first of the new year, I came across a Reuters article [1] about Larry, a “humanoid-simulated vomiting system.” This robot, appropriately nicknamed “vomiting Larry,” was created by researcher Catherine Makison from the Health and Safety Laboratory in Derbyshire, England.

My initial, slightly revolted and entirely amused reaction quickly turned into pure fascination. Larry’s work is important: Scientists are studying his projections, which consist of an easy-to-spot fluorescent “vomitus substitute,” in order to better understand contagion. I must admit that I have never felt so relieved to see the word *substitute*.

Currently, Larry is hard at work simulating the projections of someone suffering

from norovirus, a dangerous and easily spread illness that affects millions each year (21 million in the United States alone). “‘It takes fewer than 20 virus particles to infect someone. So each droplet of vomit … from an infected person can contain enough virus to infect more than 100,000 people,’” says Ian Goodfellow, a professor of virology at the Department of Pathology at Britain's University of Cambridge.

Furthermore, the article explains that the virus can “remain alive and well for 12 hours on hard surfaces and up to 12 days on contaminated fabrics such as carpets and upholstery.” Therefore, scientists are working hard to determine the behavior of Larry’s “substitute,” and determine how it can be better contained and cleaned up in order to help halt the spread of the virus.

As researchers create inventions such as Larry to help better understand how illness spreads, they hope that this awareness leads to a healthier future.

Increased understanding has led to the development of an experimental vaccine that may prove to be effective against norovirus. “Early tests in 2011 indicated that around half of people vaccinated with the experimental shot, now owned by Japan's Takeda Pharmaceutical Co., were protected from symptomatic norovirus infection,” the article explains.

While the rapidly changing nature of norovirus makes drug development difficult, the scientists and researchers who work behind the scenes have resolved to find an answer, and with innovative inventions at their fingertips, their goal may be a little easier to achieve.

Another year has begun, and while I may struggle with my own healthful resolutions, I admire the resolve of those who strive to better understand the world around us.

Science isn’t always pretty, but it’s definitely remarkable.

Do inventions like Larry amaze you, too? Let me know by emailing me at jonnatha.mayberry@advantagemedia.com *[2].*

Source URL (retrieved on *07/22/2014 - 11:25pm*):
http://www.chem.info/blogs/2013/01/new-year%E2%80%99s-project-larry-robot?qt-most_popular=1&qt-recent_content=0

Links:
[1] http://www.reuters.com/article/2012/12/31/us-norovirus-idUSBRE8BU05N20121231
[2] mailto:jonnatha.mayberry@advantagemedia.com