

# Why We Still Need to Promote Girls and Women in STEM

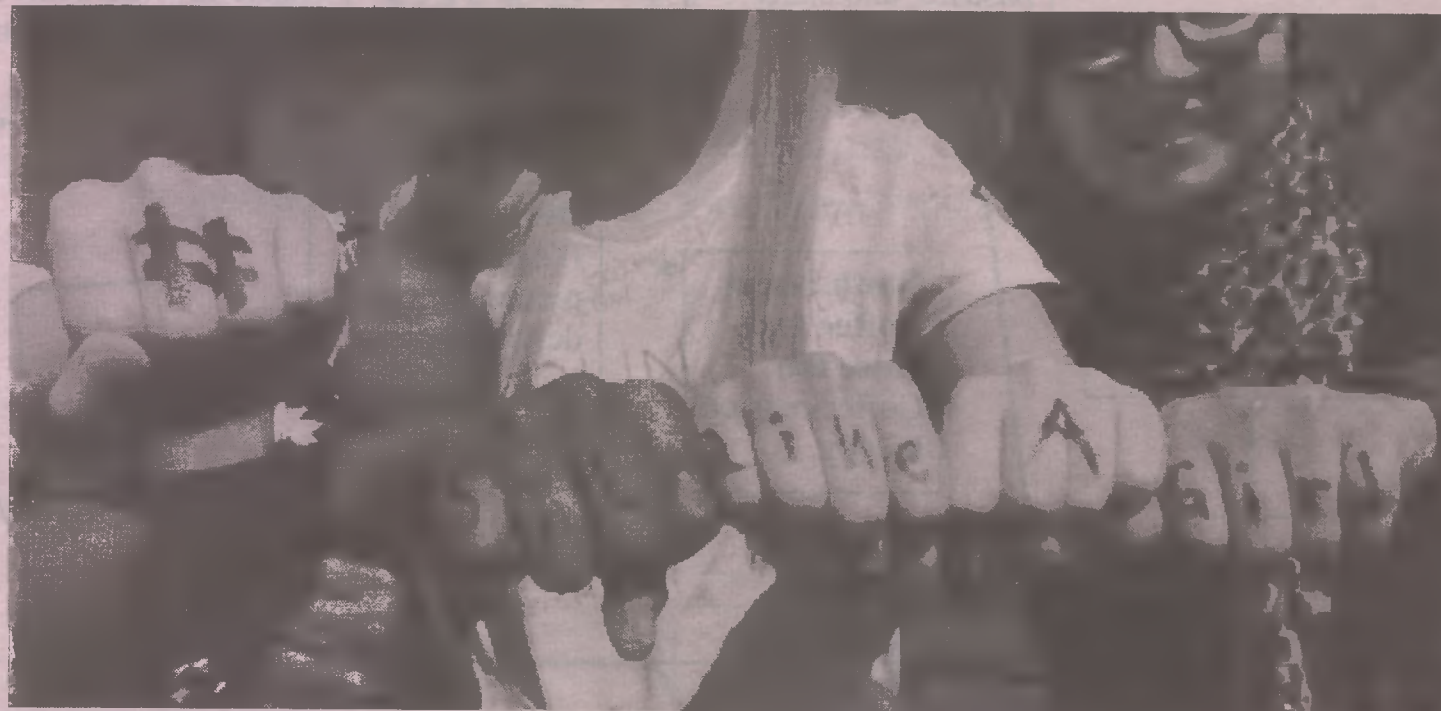
By MARGAUX WINTER

As more college students graduate with degrees in STEM, the percentage of women with these degrees is climbing as well. According to [ngcproject.org](http://ngcproject.org), in 2013, 50.3% of the degrees in science and engineering were awarded to women. Why, then, are we still pushing for women and girls to become more interested in STEM?

Despite these seemingly optimistic statistics, there is a great disparity between the numbers of college-educated women in STEM and the numbers of women actually participating in the science and engineering workforce. Unfortunately, women only make up 29% of the science and engineering workforce, and even smaller numbers when you look at specific fields. For example, while 35.2% of chemists are women, only 10.7% are electrical or computer hardware engineers, and 11.1% are physicists and astronomers.

So what is the reason behind these dropping numbers? Do superiors pressure women not to follow their chosen careers? Do many women choose to start a family instead of using their degrees? These are questions that many female scientists and engineers are still grappling with, and often there are no clear answers.

One of the many hypotheses on this issue is the lack of female role models in STEM. Women may push through a



Tasneem Essader (far right) joins other students in encouraging women to pursue careers in STEM through the NCSSM initiative *STEM Like a Girl*.

higher degree with a strong interest in the subject they study, but once they begin looking for a job they become discouraged. Of course, this path creates a negative cycle, wherein women are discouraged from working in STEM, and as a result they do not create a more positive environment for the next generation.

Other studies find that sexual harassment is a reason that women leave STEM. Hope Jahren, a geochemist and geobiologist, recently wrote an article in the *New York Times* about this phenomenon. She said, "Since I started writing about women and science, my female colleagues have been

moved to share their stories with me; my inbox is an inadvertent clearinghouse for unsolicited love notes." The notes she shares comment on women in inappropriate and overtly sexual manners, yet at the same time, they acknowledge the problems with their comments, going so far as to say, "Of course you know I could get fired for this."

One question that pops up is why women aren't reporting this harassment. One reason is the risk of losing their jobs, if they aren't prompted to leave first. Oftentimes, harassment comes from superiors, which can put women in a battle of his word against mine, or even

in the form of filing complaints that simply aren't believed.

Despite these seemingly staggering odds, many women are still in the STEM workplace. These are women who either persevered through bad situations, or who were lucky enough to work in a place with a lack of negative stigma against women.

So, let's start early when combating stereotypes and stigma. The only way to uproot problems with the system is to start with the women in the workforce now, and to start early with the next generation. Most of the students at NCSSM will pursue science or engineering as a career, but

we need to think beyond the people we know. Encouragement and comradeship go a long way.

When examining these problems, we often forget to look outside the United States, but the advancement of women and girls in STEM is an international issue. In the US, many organizations and efforts have been worked to increase girls' interest in STEM. These efforts are working, and many science fields are opening up their doors to create more diverse and well-educated workforces. But in many other countries, this is not the case. Gender stereotypes and power dynamics still infest these fields.

## Zika Virus Continues to Loom Large

By SAMANTHA GONSKI

Discovered only 69 years ago, the Zika virus has gained presence over time. Zika was first observed in the Zika Forest in Uganda, where a Rhesus monkey contracted a febrile, or fever-like, illness. The virus belongs to the same family as the West Nile virus and yellow fever, both of which are a bit more understood.

Although Zika made its first appearance in 1947, it was not until seven years later that it was contracted by a human. The first human case was detected in Nigeria; Zika then spread to other parts of Africa and to Asia as an epidemic illness.

In 2007, another epidemic of Zika wiped through Yap Island, in the Pacific Ocean, and in 2013, it infected 11 percent of the population of French Polynesia. Only a year ago did Zika hit Brazil; it may have been brought there by the 2014 World Cup.

A virus with no cure and no vaccination is now running through the city where the 2016



*Aedes species* mosquitos, like the one pictured above, spread Zika when infected.

Olympic Games are taking place. Zika has mild effects; some of those who are infected do not even present symptoms. But, if a pregnant woman is infected, the virus can cause her child to have serious birth defects.

Zika can be spread by *Aedes species* mosquito bites, from a pregnant mother to her fetus, or through sexual intercourse; it is likely that the virus can also be spread through blood transfusions. Symptoms

include fevers, rashes, joint pain, conjunctivitis, muscle pain, and headaches. Those infected present symptoms for several days to a week but do not typically require hospitalization.

Fetuses that contract the virus may experience microcephaly and other serious birth defects, such as seeing, hearing, and growth deficits. Microcephaly is when a child's head is abnormally small due to improper brain

development. This can lead to serious problems: poor speech, poor motor functions, dwarfism and seizures.

The national Centers for Disease Control highly encourages everyone to take preventative actions against the virus: wear long sleeves and pants and use bug nets and mosquito repellent. As of July 27, 2016, the CDC reported 1,658 cases of the virus in the United States. However, none of these were spread through

local mosquito bites until July 29, 2016, when the state of Florida reported four new cases.

In Miami, the four cases of Zika Virus were determined to be caused by local mosquito bite transmission. The CDC is working closely with the state in an ongoing investigation, and to date has given Florida eight million dollars specifically for Zika funds. There are no plans to limit travel to the area.