

News

Wasp Stings Possible Weapon Against Cancer

Kaity Melvin, Staff Writer

A peptide found in the venom of the Brazilian wasp *Polybia paulista* could stop cancer in its tracks, a new collaborative study published in the *Biophysical Journal* finds. Researchers from São Paulo State University in Brazil and the University of Leeds in the UK, have unlocked the secrets of how this peptide works.

Other studies conducted in the past five years have determined that this peptide, called MP1, can not only destroy both gram-negative and gram-positive bacteria, but also inhibit the growth and reproduction of bladder, prostate and multidrug-resistant leukemia cancer cells. However, MP1 does all of this without harming healthy cells.

For a number of years it has been known that cancer cell membranes differ from healthy cells in their distribution of phospholipids. Healthy phospholipids face the inside of the cell, where cancerous cells the phospholipids face outside the cell. It was hypothesized that MP1 was interacting with these changed phospholipids to target cancerous cells only. The study released by Natália Bueno Leite of São Paulo State University and Paul A. Beales of the University of Leeds, has shown that MP1 does indeed interact with the phospholipids of cancer cells,

binding with them and ripping holes in their cell membranes. Co-author Dr. Neto said that these holes "are big enough to allow critical molecules such as RNA and proteins to easily escape cells."

RNA performs a broad range of needed functions within the cell. When the RNA and proteins leak out via these holes it disrupts any normal function that the cell could perform, including reproduction. According to Dr. Beales "This could be useful in developing new combination therapies, where multiple drugs are used simultaneously to treat a cancer by attacking different parts of the cancer cells at the same time." However, it will be some time before this method is commercially available, as more testing is needed to ensure that MP1 is not harmful to normal cells.



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Presidential Race for the Debate

Brook Boatright, Staff Writer

With the upcoming presidential elections it is more important than ever to become informed of the options that are available to the general American public. That being said there are many opportunities to become an informed citizen. There will be many chances in the near future. In fact, on Wednesday, September 16, 2015 the second Republican debate will be aired on CNN and Salem Radio at the Reagan Library in Simi Valley, California. The debate will be moderated by Jake Tapper, Dana Bash and Hugh Hewitt.

The debate will be split into two sections. The candidate that had at least 1% of the polls which happens at 6pm and the primetime debate which includes the top 11 candidates in the poll happens at 8pm. Some of the more interesting facts of our candidates are as follows:

Donald Trump, a man who has considered running for president a total of five times; 1988, 2000, 2004, 2012 and now 2016. If elected he would be only the second president to have a star on the Hollywood walk of fame. Four of his businesses have filed for bankruptcy.

Job Bush who talks about deporting

illegal aliens but has a Mexican wife and has a degree in Latin American Studies. He was also the only Republican to serve two four-year terms as governor of Florida.

Scott Walker a man who is the first governor to survive a recall election in the history of the United States. He would also, if elected, be one of the only presidents without a college degree the other being Harry Truman.

Ben Carson used to have a serious anger management problem, even to

the point of hurting others, but he is now a renowned physician. Ben Carson pioneered the separating of conjoined twins. He also was diagnosed with cancer and is now cancer free due to a surgery to remove it.

Carly Fiorina the woman that everyone hears about due how outspoken she is. She beat the odds and will be allowed into the primary debate even though it was very close. She battled and defeated breast cancer. She was named after her fallen ancestors of the civil war. She dropped out of law school and yet became the first woman to be a CEO of a Fortune 500 company.

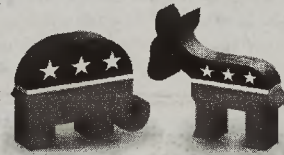


Photo Credits The American Center

Sanctions Against China Lead to Cyber War?

Abigail Ojeda, Staff Writer

As conflict arises over increasing cyber-attacks from China, concern has grown regarding the United States' response. The Obama administration is preparing a package of economic sanctions for Chinese companies and individuals who have committed cyber-theft. These sanctions are being published even though China's President Xi Jinping will arrive in Washington for his first state visit later this month.

Cyber-attacks in the past year have escalated, culminating in thefts by Chinese hackers who have stolen nuclear power plant designs, search engine source code information, and confidential negotiating positions of energy companies, according to the Washington Post. In fact, FBI director James Comey said in an interview with CBS News that China is at the top of the list when it comes to infiltrating and attacking the U.S. through cyberspace, the hits costing billions of dollars annually. As Comey stated, "... there are two kinds of big companies in the United States. There are those who've been hacked by the Chinese and those who don't know they've been hacked by the Chinese."

The proposed sanctions would be the first to result from an executive order signed by President Obama this year. Ultimately, the order allows for sanctions to be directed at individuals who engage in malicious cyber-enabled activities. There has been an increasing sense of urgency regarding cyber-crime, an issue President Obama

voiced in his most recent State of the Union Address. According to the Washington Post, it is possible the Obama administration may hold back or cancel the sanctions, perhaps due to the visit of China's president.

If the sanctions are indeed carried out, some wonder what the effects will be: "I'd say the chances of Chinese retaliation are high," noted Obama's former principal advisor on Asia, Jeffrey A. Bader, according to the Washington Post. However, the relationship between the world's two largest economies is multi-faceted, and although cyber-crime may be a delicate topic, Bader concluded that "if a Chinese company was a beneficiary of stolen intellectual property from an American company, and the evidence is clear cut, then actions or sanctions against that Chinese company strike me as appropriate."

Everything considered, the sanctions on Chinese individuals and companies could provoke retribution and more cyber-conflict. According to CNN, officials hope the message gets across to Xi—even if the sanctions are implemented after his visit.

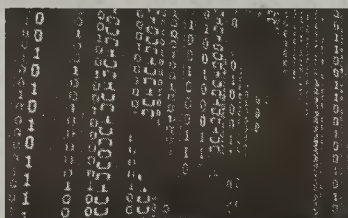


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Out of State Homesickness at Meredith

Sarah Kiser, Staff Writer

Kristin Eiffert drove non-stop from Dallas, Texas to Raleigh, North Carolina for move-day, and somehow fit herself, her parents, and all of her stuff into a 2002 Honda. She had been to campus twice before move in day so she had some idea of the atmosphere on campus and in the city. She said of her first day, "I was really nervous because coming from Texas, I knew absolutely no one." Compared to Dallas, Eiffert says, Raleigh is smaller and cleaner. Dallas is dominated by skyscrapers, factories, and smog.

"The week before school started [we] had different activities you had to do which kept away the home sickness for me, and now since I'm in a routine it's easier to not think about back home as much," said Eiffert. According to a peer reviewed study in the database of the Institute of Education Sciences, "68.8 percent of college freshmen reported experiencing homesickness."

Unlike many of her friends, freshman Okirah Harris, chose to move out of state for college instead of stay close to home in New Jersey. Harris lived in Hopewell, New Jersey for her last three years of high school. Previously, she had lived in Mississippi, Michigan, and Texas-- travelling was a part of life. "I've always been okay and adapted to moving, and I really felt like I wanted to go to school with something different. I don't know anyone at my school or in my friend group who even dared to go to an all-women's college. You normally don't hear that where I'm from."

She is now a sophomore at Meredith and reflecting on her past year she said, "I was nervous at how I would meet people, how I'd fit. At first, I thought coming to an all-women's college in the South, it would be really hard to get along with people. I didn't know how well people would accept others here. My first day of school completely changed that notion."

Harris recalled "being homesick hit me hard about three weeks into school, and when everything got to the nitty gritty of it, I was on my own, had to be over my own school work, all at the same time by being by myself, it hit me hard." She continued by saying "I adjusted pretty well. I would call my family a lot and ask for their support. Then I had friends here who could help me with that."

Harris advises freshmen "come here with open arms." She was guarded when she arrived, but having "lived and experienced it" she knows that it's a great community of supportive women. She also advised for freshman to make use of all the resources made available to them.

Harris has moved several times in her life; she knows a little bit about every part of the country and North Carolina is now one of her favorite states. "There's so much opportunity. Coming from a northern state to here, it just feels better. The atmosphere is so welcoming; people are patient, and I think that goes into play with how you view your day."