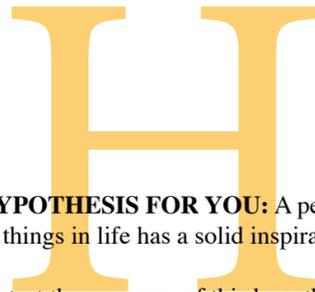




## Honoring the Past Through Future Healing

By JD Hardin



**HERE'S A HYPOTHESIS FOR YOU:** A person who achieves great things in life has a solid inspiration behind their efforts.

To be able to test the accuracy of this hypothesis, insert 17 year-old student Tushar Mittal of Henry County. And when it comes to testing a hypothesis, you have to take into consideration variables and constants and numerous other aspects to ensure you are able to get the best results. Meeting this dynamic intellectual student, you quickly learn the true meaning of dynamic.

Mittal can school you on all you need to know about science-project protocol. One brief conversation with him and you feel

as though you were sitting in an upper-level science course in college. He's that studied.

You see, since Mittal was introduced to science projects in middle school, he has been working to improve his knowledge and depth on how things work in the world around us. While some of us may have taken on the projects involving which dishwasher detergent got dishes the cleanest or the effects of different shades of light on plant growth, Mittal's inaugural project took on the effects of energy drinks on plant growth. To hear him describe his projects lets you know that he'd be the one with the medal at the end of the science fair. As a seventh grade student, he could top your senior year project.

That one project and all the effort he put into it, set the course for a remarkable path that he's been blazing ever since.

Mittal shares that he moved from New Delhi, India, when he was eight. The brother to a younger sister, Mittal spent the early part of his youth in India while his father worked in the United States preparing to move the family at first chance. It was during his time spent in India that he grew close to his grandmother. To hear him speak of her, you know she made an everlasting impact on his life. The bond between them was stronger than a covalent chemical bond.

Oh, you don't know what that is? This bright young student could explain it forwards and backwards, but in layman terms. This bond is often considered the strongest of chemical bonds. In other words, Mittal was fond of his grandmother. But it was that bond that took a minor hit to its structure when his grandmother passed away from cancer. "I grew very attached to her," shared Mittal, "but at the time she was battling this disease, I had no idea. It wasn't explained to me right away, but it was something I came to learn of when I got older."

And it is his grandmother providing the greatest inspiration for his most noteworthy science project to date. He's attempting to cure cancer. That's right. No household cleaner comparisons, friction tests, or battery durability investigations made the cut for experiment ideas. Mittal is currently working with Emory University researchers and doctors to expand his International Science and Engineering Fair experiment on the power of Carvacrol in curing colorectal and pancreatic cancers.

Self-driven is a severe understatement to what this remarkable Dutchtown High School student has demonstrated throughout his school days and into his senior year of high school. Since falling in love with the field of science and medicine, Mittal has plotted his next moves by setting his own goals and challenges. "I told my dad after my first science fair that I was going to win it the next year," shared Mittal. After reaching that goal, he set his sights on grander accomplishments. And after conquering what he set out to achieve, he set a new goal to take things to another level. Along the way he had doubters. People who thought he might be too young or people who thought naivety was going to be a huge stumbling block, were quickly proven wrong.

Their hypotheses about what such a young student could accomplish were shredded. "I use opposition as fuel. When people tell me it can't be done, I try harder to see if I can prove them wrong. I look at things they may not have in hopes that I find something different."

So how did he land on his latest project that has him aiming to cure cancer? "Simple," says Mittal, "my grandmother." Faith means a great deal to Mittal, and in his faith he notes how they pay special homage to their departed loved ones. Looking for a connection to his science project at the time, the idea of focusing on cancer and potential cures entered the picture due to his grandmother's passing from a form of cancer.

After stumbling upon the interesting subject of Carvacrol, or something some people may know is found in oregano, hours and hours of research were poured into learning all he could about it and its curing powers. What he quickly learned was that the high-level research involving Carvacrol was minimal and often came back with inconclusive results. This gave him a new challenge to see how Carvacrol would help with the two aims of cancer drugs: slowing the growth of cancer cells and then ultimately killing them.

His science project earned him a trip back to the International Science and Engineering Fair in Arizona where he caught the attention of Blue Cross Blue Shield executives. They indicated a desire to work with him as his research progresses to the commercial level. And while he did not win the super bowl of science fairs this year, he still has his sights set on that grand prize.

When he returned home, Mittal wanted to see what he could accomplish with his research in a lab facility at a nearby university. After sending out numerous proposals to professors and faculty at universities nearby, he finally got a bite from an interested professor by the name of Dr. Periasamy Selvaraj at Emory University. Dr. Selvaraj is a professor in the Department of Pathology and Laboratory Medicine.

Intrigued by what Mittal proposed but questioning the student's commitment to research, Dr. Selvaraj put Mittal to the test. After presenting his project and research before several members of the faculty, Dr. Selvaraj gave the green light to use his lab space. Another challenge taken and another challenge conquered.

Even then, after getting the go-ahead from one of the top research doctors in the area, Mittal still had his doubters. Other



school officials and lab professors where he started research, using their own wealth of knowledge, tried to inform Mittal that what he was proposing might not work. He didn't care. He pushed forward and caused them to think a little harder after his efforts proved successful. Tell him no, and he is bound to prove you wrong. Their doubts only furthered his efforts.

Mittal feels he is making great progress with his work, and he knows how fortunate he is to be able to study and research at Emory. Not many 17 year olds are doing what he is doing, but he doesn't let that stop him from doing more. Aside from his talents in the field of science and medicine, this aspiring neurosurgeon spends his days like many other high school students. "I like to golf and compete in rowing."

Rowing? You read that correctly. Mittal is involved with a dragon boat racing team just outside of Atlanta. When he is not on the lake, you can find the student on solid land practicing his golf game. This links enthusiast enjoys the peaceful nature of the game with his father. "I am also a member of approximately five or six different clubs at my school." Time seems to be a precious commodity for Mittal.

Let's review. He's a high school student, which carries an inordinate amount of stress as it is. He participates on a rowing team. He manages to find time to lead or participate in several clubs at his school. He sneaks in a few games of golf with his dad when able. Plus, he is carrying out cancer-curing research projects at

a major university. What more could he possibly squeeze in? Well, the last bit of information probably gets Mittal the most excited. "I started another group at my school called 'The Human Touch Foundation.'" Adorned with the motto "Power is not in the treatment but in the touch," this group's mission is to bring a social and emotional outreach from today's youth to those battling cancer.

"We are currently working toward a 5K race to raise funds for a scholarship we would like to give to a young person battling cancer so they can eventually go to college and see that there is so much life to live and look forward to. People care about you and that is what our group aims to prove to those going through the tough times due to a tough diagnosis."

The Human Touch Foundation's 5K will take place in February around Valentine's Day. There is not a better time and meaning that could be incorporated into his and his new foundation's efforts than that of the loving spirit and meaning of Valentine's Day. It is the same feeling Mittal holds for probably his greatest inspiration – his grandmother. Her personal touch on his life has had the most powerful effect on where he is today and where he hopes to go tomorrow.