

PARK TUDOR
PRESENTS

MARCH & APRIL 2019

Global Scholars Presentations



Global Scholars Presentations

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Have a hole in your head? Because time is running out!: An Investigation into the Optimal Time to Provide Treatment after a Traumatic Brain Injury

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Sending a Text Can Save a Life: Social Media's Impact on Helping Overcome Barriers in Treating Rare Disease



Tommy Gallagher

MARCH 19, 2019 • 6PM • LECTURE HALL

Understanding The New Rules of Engagement: Analyzing the Current Role of Defenders in the Field of Cybersecurity

Throughout high school, I have been particularly interested in computer science and the endless possibilities that technology presents, however I have also realized the increasing need for cybersecurity and have wanted to further investigate this area. As contemporary society continually develops new technologies and relies on them more heavily than ever, it is imperative for society to find ways to enhance and emphasize cybersecurity. Beginning in the 1980s, a lack of cybersecurity impacted internet users around the globe, leading up to constant security threats in today's modern world. Cybersecurity will only present more complications in the future, as more technologies are created and both hackers and security experts advance their mechanisms. My presentation will examine the historical impacts of cybersecurity, the current problems and implications surrounding cybersecurity, and the future possibilities and challenges, both positive and negative, of cybersecurity. I would like to thank my parents, friends, my mentor Brian Sutton, and Ms. Sidey, for their support and guidance throughout this whole process.



Arunabh Sinha

MARCH 19, 2019 • 7:45PM • LECTURE HALL

From the Sidelines: A Utilitarian Examination of the Societal and Personal Benefits Weighed Against the Bodily and Neurological Impacts of High-Intensity Sports

From my first recesses in lower school scraping my knees playing football with my classmates, to watching professional players like Austin Collie sustain concussions, I was always interested in finding the reasons people play high-intensity sports given the injury risks. This interest peaked when amidst the media coverage of concussions and CTE, the film *Concussion* came out, inspiring me to understand the long-term effects of Dr. Bennet Omalu's research. Following the footsteps of my parents who are both physicians, I aim to examine the benefits and harms of playing sports through a scientific and sociological lens. I am thankful for the unwavering support of my teammates and coach Dr. Aaron Yengo-Kahn.



Julia Waddles

MARCH 21, 2019 • 6PM • LECTURE HALL

**Family Matters:
A Study on the Breakdown of
the African American Family**

Working at the Lower School aftercare program and volunteering at the Boys and Girls Club has allowed me to interact with kids on a daily basis. Combine this and my passions for advocacy and social justice and the result is my project: a look into the breakdown of the African-American family. Throughout my education, I have always been interested in how history shapes the present and how we view the now in comparison to the past. My love for this topic stems from both my own journey of identity, as a black and Asian young woman, and my interests in studying how one's family can shape everything about them. Throughout this process I have learned lots about the family unit and the impact that we have on the next generation. I would like to thank my parents, teachers, friends, and panelists for their encouragement and never-ending support.



Ellie Sing

MARCH 21, 2019 • 7:45PM • LECTURE HALL

**She's Asking For It:
A Talk About Slut Shaming and
How It Encourages Rape Culture**

In today's society and culture, especially in our current political climate, interest in women's rights has risen rapidly. The emergence of the Me Too movement would be one example of this. However, despite this new energy, I continue to notice the normalization of using derogatory language to characterize the sexual behavior of women or "slut shaming" in the media, in music, and in person. Growing up as Mexican, Chinese, and also a woman, I have always struggled to understand how unjust environments flourish and function in the United States. I believe that the acceptance of slut shaming in today's generation encourages the cultivation of rape culture. The Global Scholars Program has provided me with a platform to speak about a topic I am passionate about and share it with my peers. I would like to thank my family, teachers, friends, my mentor Ms. Krouse, and panelists along with Ms. Sidey and Mr. Bohrer for inspiring me and supporting my project.



Arya Bolla

APRIL 9, 2019 • 6PM • WOOD ROOM

**Not a Registered Donor? I've Got a Bone to Pick with You:
An Analysis of the Mechanisms and Demographics of Bone
Marrow Transplants**

After working with Be the Match, a national non-profit bone marrow registry organization, I discovered first hand the importance of bone marrow transplants in the lives of so many. My experiences with Be the Match have driven my interest in bone marrow transplants and the demographics of the patients who need them. Throughout this process, I have been so grateful for the support of my mentor, Be The Match, and Ms. Sidey.





Nikitha Damera

APRIL 9, 2019 • 7:45PM • WOOD ROOM

The Moral Quandary of a Convicted Sociopath: The Science of Right and Wrong

For years, the Global Scholars Program has given students a platform to become more self-sufficient by helping us develop useful skills and make the most out of every opportunity. Alongside learning how to become a more well-rounded individual, Global Scholars has thoroughly challenged my perspective of the world. It has taught me to embrace empathy and acknowledge every side to a situation. Therefore, this presentation aims to analyze how one differentiates between right and wrong against the backdrop of such a complex society. Specifically, I am interested in applying this notion to a convoluted issue; how do we approach the issue of mentally ill criminals? Do we convict them for the violence they impose on society? Or do we take into account that they might lack control of their own actions? I'd like to thank Ms. Sidey, Mr. Bohrer, my friends, and my family for dealing with my indecisive nature when selecting a topic and giving me their full support along the way.



Will Wallentine

APRIL 11, 2019 • 6PM • WOOD ROOM

**Back to Bacteriophages:
How a Medicine From the Past is Being Used Today**

Everyday our lives are shaped and determined by forces and entities that our limited perception fails to see, and after taking a microbiology class junior year, I became fascinated by the microscopic world. Bacteriophages, which belong to a tiny sliver of this environment, occupy a huge amount of my interest. My topic focuses on how bacteriophage, which are viruses that infect bacteria, can help us fend off bacterial infections, and the odd history behind that scientific discovery and subsequent research.



Alec Henry Weiker

APRIL 11, 2019 • 7:45PM • WOOD ROOM

Strangers in Their Own Land: An Investigation of Cultural Relativism and Its Implications for LGBTQ+ People

Anyone who knows me knows that I love to debate. So when it comes to questions of human rights and LGBTQ rights, something close to my heart, no one is quicker to come to the defense than I am. This is why I am proud to present my Global Scholars presentation on the validity of cultural relativism, a philosophy notorious for justifying discrimination. Thank you to my parents, friends, Mr. Bohrer and Ms. Sidey for always listening to my nonsensical argumentative rants and keeping me sane throughout this process.



Matt Fu

APRIL 16, 2019 • 6:00PM • LECTURE HALL

The Historical Use of Malaria Infection in the Treatment of Neurosyphilis

I became interested in medicine after seeing my mom's passion for her work as a doctor. Last summer, I became particularly interested in pathology when I got a great opportunity to work with Dr. George Sandusky at the IU Department of Pathology. As scientific breakthroughs in many fields continue, medicine is just one field that has seen great advances in recent years. One aspect of studying medicine is through reviewing history that could shed light into modern day treatment. Syphilis, an old infection that has had a slight uptick in recent years, is one example where we can see the success of a unique treatment method in the past. My presentation will examine the historical use of malaria to treat syphilis in the early 1900s. I would like to thank my family, friends, mentor George Sandusky, and Ms. Sidey for their support and guidance through my global scholars journey.





Kevin Wu

APRIL 16, 2019 • 7:45PM • LECTURE HALL

Modifying Mankind: Analyzing Technology's Relationship with Humanity and the Effects of Transhumanism

I became fascinated with the power of technology since my first computer when I was six, and I have been hooked ever since. With the rapid growth of technology, it has the power to change the essence of humanity altogether under a new field: transhumanism. My project focuses on the implications of technology augmenting human nature as well as what it tells us about our relationship with technology and our environment today. We humans have an obligation to oversee new technology and make sure it is implemented ethically. I'd like to thank my parents, my friends, my mentor, my panelists, Mr. Bohrer, and Ms. Sidey for guiding me along the way.



Margherita Firenze

APRIL 22, 2019 • 6:00PM • WOOD ROOM

Get It Into Your Head: How Brain-Computer Interfaces Will Change Ideas of Self

Inspired by Mr. Ritz, Mr. Dewart, and Mr. Bohrer, my presentation combines my three wonders: computers, brains, and philosophy. Brain-computer interfaces, the subject of my presentation, provide hope not only in restoring and replacing lost function, but also in advancing human capabilities. Meanwhile, the growing power of computers to decode and model our brains is changing our ideas about consciousness and free-will. I would like to thank Ms. Sidey and my parents for their relentless support, and invite the Park Tudor community to join in me in a night of awe and introspection.



Priya Moorthy

APRIL 22, 2019 • 7:45PM • WOOD ROOM

The Common Thread: The Role of Music as Society's Influence Peddler and Power Broker

For many years, I have been absolutely enthralled by the history behind music and its ability to change the way society thinks, acts, and reacts. In my global scholars presentation, my very own passion project, I will be examining three drastically different societies: Stalinist Russia, the Jazz Age in America, and the Taliban Regime in Afghanistan. Although superficially, these societies may appear to contrast one another, they share a common thread. In each society, music had such power over the people and society as a whole that it was able to influence society both socially and politically. Through close examination and in-depth analysis, I will show how big of a power broker music truly is and how integral it is to an individual's own identity.



Alex Woods

APRIL 23, 2019 • 6:00PM • LECTURE HALL

**The Iron Crossroads:
A Look at the Legacy of Indiana's Railroads**

I have loved trains and railroads since I was a little girl, and most people who know me can agree. With my volunteering for the Indiana Transportation Museum and my membership in the National Railroad Historical Society, my choice of a topic probably does not come as a surprise. With everything that the Museum has faced for the past few years, I hoped that my project would not only allow me to learn about Indiana's railroads, but also provide an opportunity to explain why that part of its history needs to be recognized, if not celebrated. Thank you to my mother, David Petroni, the National Railroad Historical Society, the Monon Railroad Historical-Technical Society, and the Indiana Transportation Museum for supporting me in my journey.



Lily House

APRIL 23, 2019 • 7:45PM • LECTURE HALL

Have a hole in your head? Because time is running out!: An Investigation into the Optimal Time to Provide Treatment after a Traumatic Brain Injury

Over the course of my 6 years at Park Tudor, I have taken interest in Culture & Tutoring, Model United Nations, and the Medical Association club. Being dominantly a science-driven individual, I surprisingly became intrigued by philosophical queries introduced in the course, Philosophies of Knowing. Soon after I became fascinated by the complex and enigmatic nervous system. Having had the opportunity to participate in lab research, I was able to learn about the pressing issue of traumatic brain injury (TBI) symptoms and deaths as well as the possibility for an effective TBI treatment. In my culminating project, I will present the philosophical implications of suffering from a TBI as well as provide an analysis of the research done to determine the optimal time to provide a treatment to patients after a TBI.

I want to thank my parents for supporting me and offering advice in times of doubt. I also want to thank my teachers and friends for pushing me to challenge myself and for inspiring me everyday. I want to thank Mr. Bohr and Ms. Sidey for being my sounding board and always uplifting me. Lastly, I want to thank my mentor, Dr. Xiang Gao, and the lab director, Dr. Jinhui Chen, for providing an eye-opening opportunity I would not have had without them.



Anjali Mirmira

APRIL 29, 2019 • 6:00PM • LECTURE HALL

Diabetes Mellitus in the United States: The Inequality Behind the Numbers

Since I started working in a diabetes lab my junior year, I've become fascinated with the complexity of the disease on a cellular and molecular level. But being a teenager in 2019, I've heard a narrative that over-simplifies the causes of diabetes and understates the importance of research. My lab experiences inspired me to look beyond the idea of "just exercise more" or "don't eat a dessert, or you'll get diabetes," and consider how social inequity correlates to the increasing numbers of diabetes. My experiences in Global Scholars, as well as the lab, have inspired me to pursue research in my time at the University of Chicago and beyond. I would like to thank my mom, dad, and sister for inspiring me to pursue science and Ms. Sidey for always challenging me to stretch my thinking and helping me bring my project together.



Vahin Vuppalanchi

APRIL 29, 2019 • 7:45PM • LECTURE HALL

Sending a Text Can Save a Life: Social Media's Impact on Helping Overcome Barriers in Treating Rare Disease

For most of my junior year, I thought that I would pursue a topic in Neurology as that's where I believed my passions lay. It wasn't until I started working with the Autoimmune Hepatitis Association that I found my true interests: technology in the medical world. At long last, I finally get to present my topic about social media's impact in aiding in the treatment of rare disease. I would like to thank Mr. Bohrer and Ms. Sidey for taking up the challenge of convincing me of the benefits of philosophy, Dr. Lammert for letting me have the opportunity to work with a not-for-profit organization aimed towards a global audience, and all of my technology-dependent colleagues for convincing me to create many social media accounts.