

Spring 2020

NEWSLETTER

# NOBCChE

## Indy

*2020 Graduation and Member  
Accomplishment Edition*



# Dear NOBCChE Family

Welcome to our inaugural edition of the NOBCChE Indy newsletter. Normally at this time we would be getting together to plan summer camps and programs, celebrate graduations, member accomplishments and just fellowship. Clearly the COVID-19 pandemic has changed life as we know it. While the pandemic has ravaged communities worldwide, we believe the time is always right to do the right thing. Intrinsic to any tragedy, set-back or misfortune is an opportunity for growth, betterment, compassion and resilience. NOBCChE Indy members have always stepped up in the face of incredible odds and this time will be no different.

In this edition we highlight the recent accomplishments, graduations and achievements of our NOBCChE Indy family. As you read about the graduations and accomplishments of these individuals remember that along the way they made many personal sacrifices to give back and volunteer in NOBCChE or partner programming or events, making their accomplishments even more noteworthy. Several of our key members have transitioned from Indianapolis, but amazingly have continued to connect and stay engaged with their Indianapolis NOBCChE family (even remote mentoring!) all the while forging new paths in their new home cities. Some of the activities volunteers are engaged in are below:

- Volunteering at NOBCChE and partner events (Celebrate Science, HCOP, ACS, Project SEED/STEM, Indianapolis Professional Association and more)
- Science Fair Judges
- Mentoring
- Designing/Implementing Science Camps
- Working with schools, community leaders and non-profits

Thanks to you NOBCChE family, our members, advocates, partners. I would also like to express my gratitude to executive board members Ayanna Jackson, Ph.D., Linda Washington, and Kim Steward, Ph.D.

As members of the scientific community we have an extra responsibility to be engaged, know, understand and communicate the relevant data, behave responsibly and be leaders. I am proud of all of those continuing to serve and lead in various capacities at home, professionally and in your communities. I hope the NOBCChE family will continue to look at this as a time to innovate, create and come up with creative solutions to the myriad problems we continue to encounter.

In addition to celebrating and congratulating those members highlighted, I have 3 additional requests as you read through the newsletter.

1. Please take time to care for yourself, mind, body and soul. Check in on your family, friends and loved ones. If you are in need personally, ask for help.
2. Please help us to get the word out about new opportunities with our partners such as those offered by Women and Hi-Tech and HCOP.
3. Don't forget those members of our community that may be suffering physically, emotionally or financially during this time. If you are in a position to help with your time, talents or gifts, do so.

Thanks for all you do and be Blessed.

**Paul**

## Hello Indianapolis Chapter of the National Black Chemists and Chemical Engineers (NOBCCHE):

My name is **Angela B. Freeman**, and I am a former Molecular Biologist turned Intellectual Property (IP)/Patent Attorney at Barnes & Thornburg LLP in downtown Indianapolis. I am also the current President of a local 501(c)(3) nonprofit organization called Women & Hi Tech. Women & Hi Tech exists to change the landscape of women represented in STEM to be equally inclusive to all. Notably and proudly, I am the first African American President of Women & Hi Tech in its over 20 year history.



The Leading Light Awards and Scholarship Gala (LLA) will be held on October 1, 2020 at the Indiana Roof Ballroom. This signature, biennial event organized and hosted by Women & Hi Tech focuses on celebrating Indiana women in STEM women who are risk-takers, leaders, educators, mentors, and those who are changing our local STEM landscape. In addition, Women & Hi Tech's 2020 LLA event will specifically focus on celebrating "Equity & Inclusion" in STEM in Indiana. New this year, we will also honor our male allies, as well as our diversity, equity, and inclusion champions. During this 20th Anniversary of the first Leading Light Awards originally the Spotlight Awards and the incorporation of the organization in 2000, Women & Hi Tech will also award at least \$20,000 of scholarships and/ or professional development grants to women in Indiana pursuing STEM fields through its #LLA20for20 campaign. We are actively working to improve exposure and awareness of these LLA opportunities in diverse communities in hopes to increase the applications/nominations received from qualified diverse women and girls pursuing STEM professional or academic careers here in Indiana.

Accordingly, I am reaching out to my friends and family at NOBCCHE, and asking for your help to spread the word to your diverse female STEM colleagues and networks here in Indiana. Tell anyone you know your church member, your hair stylist, your soror, your auntie, cousin, or girlfriend that funds to pursue STEM opportunities are available through Women & Hi Tech. Applications and nominations for the LLA awards and the scholarships/grants are open until June 1 and July 1, 2020, respectively

[\(<https://womenandhitech.org/2020-LLA-Overview>\)](https://womenandhitech.org/2020-LLA-Overview).

Finally, Women & Hi Tech is also accepting applications for Board Members. If you are a male or female with an expertise in STEM, and have interest in serving on an all volunteer working Board of Directors, please consider applying for one of our Board positions. Board applications are being accepted until May 1, 2020

[\(<https://womenandhitech.org/Blog/8845097>\)](https://womenandhitech.org/Blog/8845097).

If you have questions regarding any of these LLA opportunities, please feel free to contact me at [president@womenandhitech.org](mailto:president@womenandhitech.org).

Look forward to receiving your LLA nomination/application!

Sincerely,  
**Angela B. Freeman**

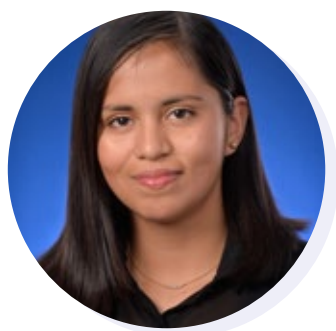
**Angela B. Freeman, Esq.**  
*Intellectual Property/Patent  
Attorney and President of Women & Hi Tech*

- [www.linkedin.com/in/angelabfreeman/](http://www.linkedin.com/in/angelabfreeman/)
- [www.btlaw.com/en/searchresults#?keyword=angela%20b%20freeman](http://www.btlaw.com/en/searchresults#?keyword=angela%20b%20freeman)
- [www.womenandhitech.org/](http://www.womenandhitech.org/) President

# NOBCChE in the Community



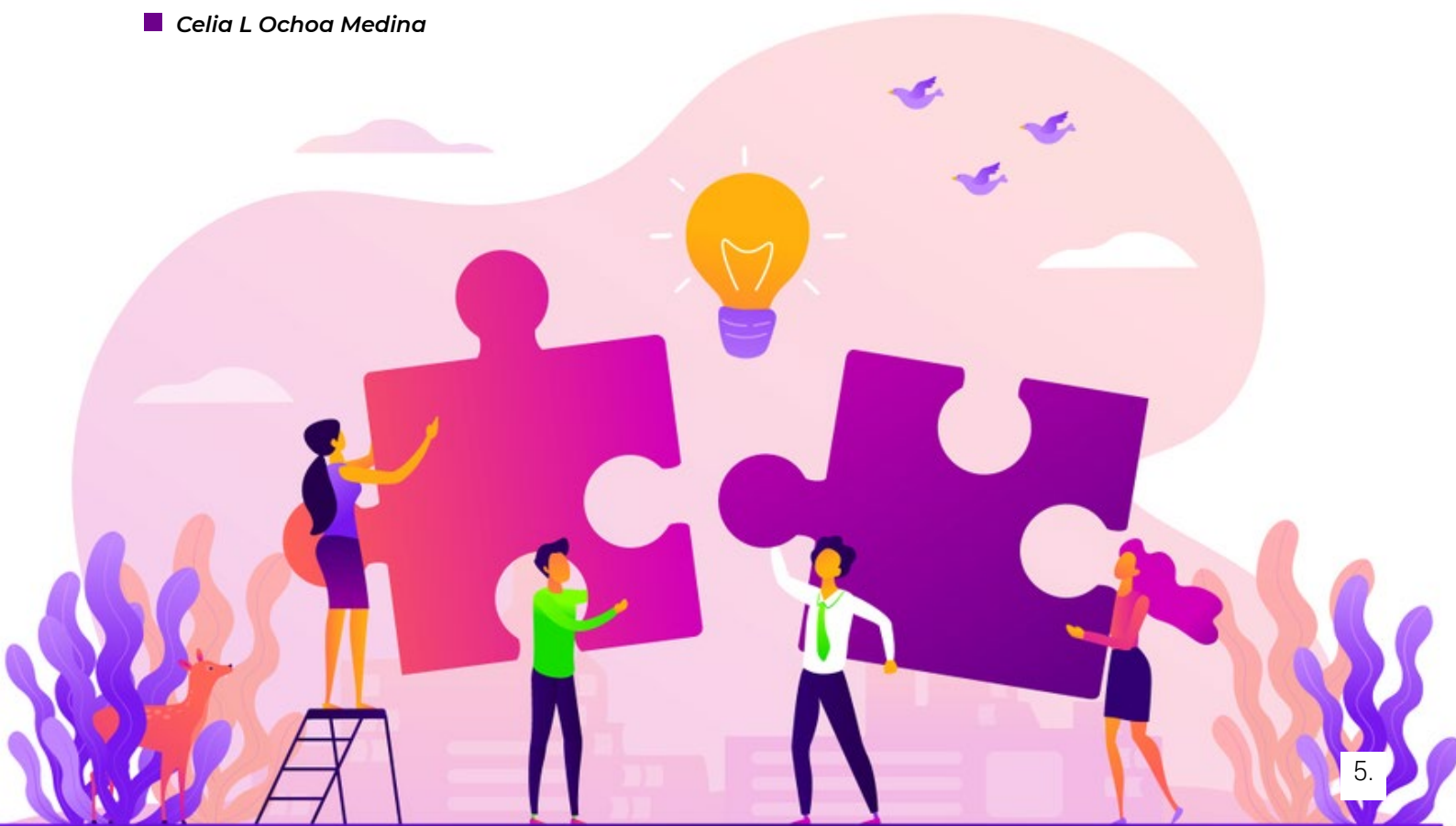
# ***Facing the New Normal: Academia and Industry Working Together in Science to Fight COVID-19***



■ **Celia L Ochoa Medina**

In December 2019, the first reported case of a patient with the novel coronavirus (COVID-19) was identified in Wuhan, China. Today as of April 2020, globally over 1.8 million cases have been confirmed testing positive for SARS-CoV-2, the virus that causes COVID-19, along with 113,672 deaths according to the John Hopkins University (JHU) Coronavirus Resource Center<sup>2</sup>. Human-to-human transmission of the disease spreads due to contact with droplets from coughing or sneezing<sup>3</sup>. Cities around the world are in lockdown to encourage social distancing to ultimately help flatten the curve. For many, living through the current pandemic means experiencing loss, whether that be loss of a family member, loss of employment, or, for many graduating high school and college seniors, loss of opportunity to cross a graduation stage after working hard to reach that goal. Amidst uncertainty and devastating times, scientists have been forefront in fighting the disease and helping those affected by COVID-19. One thing to be certain, life after the pandemic will not return to normal rather will become a “new normal”. During the transition to the new normal, fallacies in our current government and healthcare system will come to light challenging the way society addresses these issues. As the virus continues to spread, scientists globally in academia and industry are working together to fight the disease while shaping a new normal relationship between both sectors.

For decades, scientists have attempted and discussed how to bridge the gap between academia and industry. Joseph B. Martin in *Academic-Industrial Collaboration*:



The Good, The Bad, and The Ugly, describes academia and industry as two cultures with very different missions<sup>4</sup>. Academia focusing on education and discovery driven by intellectual curiosity. In contrast, industry focusing on translational research and innovation driven by profit in a competitive marketplace. Another major difference is the form of currency each sector values. For academia, currency may come as (1) authorship through publications that advance the field and (2) receiving tenure. In contrast, industry's currency, most-simply-said, is money. For companies, maximizing profits means staying best in class on a fast-paced agenda and protecting trade secrets and proprietary information.

Despite the differences between these two cultures, academia-industry collaborations leverage these differences to foster opportunities to commercialize pure research into patents and marketable products. Industry support for basic research from academia can be traced back to as early as mid-1970's with Monsanto, now Bayer, agreement with Washington University in St. Louis bringing more than \$100 million in funding to the university<sup>5</sup>. Under this agreement, the university receives funding to conduct research and the company is given a certain number of days to review research results prior to submission for publication. This provides the company time to make decisions surrounding licensing to commercialize products<sup>6</sup>. There are different types of agreements that academia and industry can enter depending on the interest and resources available.

Additionally, emphasis on engineering, technology, and computer science has been fundamental to bridging the gap between the two sectors. Government funding has also been pivotal in accelerating the research and development (R&D) process through programs such as the National Science Foundation (NSF) and the National Institute of Health (NIH)<sup>6</sup>. Academia-industry collaborations can also benefit from making agreements with the government sector. For example, this gives the government the opportunity to attract young talent into the STEM field to ultimately contribute to scientific advancement while providing them with academia and industry experience.

Despite the benefits of academia-industry collaborations, sentiments towards each field range to positive to very negative, specifically, when it comes to deciding who to credit for true innovation in discovery and development. The difference in sentiment may root from disagreement in how success is defined and measured between the two sectors. Attempting to answer this disagreement can be very complex, but recent collaborations amidst the coronavirus crisis can show otherwise. As more cases were confirmed not only in China, but now spreading through Europe, North America, and the rest of the world, scientist feverishly came together to develop diagnostics and therapeutics to fight the virus.

In March 2020, Johnson and Johnson announced a collaboration with the Beth Israel Deaconess Medical Center (BIDMC) to accelerate the development of a preventative vaccine<sup>7</sup>. A new research consortium, C3.ai Digital Transformation Institute, was established by C3.ai, Microsoft and six universities to collaborate on scientific efforts using artificial learning (AI) and digital technologies to mitigate the current and potential future pandemics<sup>8</sup>. The White House Office launched the COVID-19 High Performance Computing (HPC) Consortium to bring the government, industry, and academia together to provide high-performance computing resources supporting COVID-19 research<sup>9</sup>. Additionally, various life sciences companies are working together in the COVID-19 Therapeutics Accelerator initiated by the Bill & Melinda Gates Foundation to accelerate the development, manufacturing, and delivery of vaccines, diagnostics, and treatments<sup>10</sup>. During a time of crisis like the current pandemic, an unprecedented collaboration between academia, industry and the government is occurring all in support to gather talent and resources against COVID-19.

Companies and universities have halted many of their projects to prioritize COVID-19 research. Across the world PhD candidates are defending their thesis and will also be walking across the graduation stage, virtually. In this moment in history it does not stop there because they are also collaborating with companies to gather data and coming up with designs to keep 40-yr-old patients alive on 3D-printed ventilators.

In times of crisis and loss, scientists have not given up the battle against COVID-19, but rather are collaborating more than ever without worrying about their identity to a certain sector, nationality, race, or ethnicity. If this is possible in times of crisis, now imagine what can be accomplished if the wall between industry and academia comes down and more collaborations are sustained and become part of our new normal.



# Guide to Social-Distancing During the Time of Covid-19

■ By: Titilayo Adeniyen

*As of April 3rd, 2020, Governor Eric Holcomb has extended the stay home order in Indiana to April 20th. However, there is still a chance that the stay home order can be extended throughout this summer of 2020. The coronavirus (Covid-19) has put strain on many people, including students. Here is a guide to help students get through schoolwork during social-distancing:*

## Keep Your Mind Healthy

It is important to keep your mind healthy. Due to Covid-19, it is very easy to become anxious. Taking care of yourself mentally is vital to getting through social distancing.

- Set personal time for yourself when you are feeling overwhelmed at home.
- Take a step back from social media. Social media can be very overwhelming at times, especially with the accumulation of negative news reports.
- If you are in the mental space to do so, check up on your friends and loved ones if you have not already. Connection with others can prevent the feeling of isolation. You can use Zoom, Skype, or just simply call them.
- Reading is one of my favorite hobbies, especially when I want to escape to another world. Many libraries are still closed, but with the app, Libby, you can check out e-books and audiobooks for free and read them on your phone, tablet, or Kindle. A book that I recommend is *Where the Heart is* by Billie Letts.



## Adapt a Healthy Lifestyle

It is important to keep yourself physically healthy as well. Make healthy choices concerning food and sleep, and exercise.

- \* With the stay home order, it is easy to become physically inactive, but working out can stop this from happening. They can even be done at home, with some exercises such as squats, pushups, and lunges. Another option is taking a walk outside by yourself or with someone that you live with.
- \* Cooking is a great way to relieve anxiety and stress. Also, it can be a healthy alternative to eating out. You can use this time of social-distancing to try out new recipes.

## Stay on Top of Schoolwork

In the state of Indiana, there are now no more in person classes for the rest of the spring semester. Without the constant reminder of teachers and colleagues to attend classes, assignments can be easily forgotten.

- Teachers understand that this is a difficult time for students. If you are struggling, communicate with them. Teachers are there to help you learn.
- Have a daily routine. Setting a daily routine will help you get used to the change of having to stay home.
- Organize your study space. With a clean area to do assignments at, it makes it easier to get schoolwork done.
- Plan out your assignments. Use Google Calendar or a simple planner. Everyone is different. Use what works for you and will remind you to complete that quiz before 11:59pm.
- When you attend online lectures, dress like you are actually going to class. Wear your favorite outfits. Make yourself look presentable, even if you are going to have your camera off during the lectures.
- If the weather is nice enough, work on your assignments outside. This new change of scenery can boost your mood when you study and complete homework.

Now is the time to take care of yourself physically and mentally. Most important of all, practice social-distancing, and stay up to date on the coronavirus by visiting [www.cdc.gov/coronavirus/2019-ncov/](http://www.cdc.gov/coronavirus/2019-ncov/).





# Good Reads

## Book Recommendations from NOBCChE Indy Volunteers

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### Leonard Stewart Esq.

Assistant General Counsel |  
Intellectual Property Strategist |  
Managing Patent Attorney | FIS

- » **Range Why Generalists Triumph in a Specialized World**  
~David Epstein
- » **New Power**  
~Jeremy Heimans
- » **Getting Things Done- the art of stress-free productivity**
- » **Peak-Secrets from the new science of expertise**  
~Anders Ericsson
- » **Never Split the Difference-Negotiating as if your life depends on it**  
~Chris Voss
- » **CEO, China The Rise of Xi Jinping**  
~Kerry Brown

- » **The 12 Week Year- Get More Done in 12 Weeks than Others Do in 12 Months**  
~Brian Moran
- » **Never Eat Alone and Other Secrets to Success One Relationship at a Time**  
~Keith Ferazzi
- » **Harvard Business Review On Mental Toughness**
- » **The Art of War**  
~Sun Tzu
- » **Manchild in the Promised Land**  
~Claude Brown
- » **The Trusted Advisor**  
David Maister



### Marcus Delatte, Ph.D.

Principal Consultant Paraxel  
International



# *Black Girls Run*

■ *By: Carla Mangum, M.A.*

The mission of Black Girls RUN! is to encourage African-American women to make fitness and healthy living a priority. According to the CDC, 80% of African-American women are overweight. BGR! wants to create a movement to lower the percentage and subsequently, lower the number of women with chronic diseases associated with an unhealthy diet and sedentary lifestyle.

Black Girls RUN! was founded by Toni Carey and Ashley Hicks in 2009. Jay Ell Alexander is currently the new CEO. BGR! Indianapolis was launched in 2011 and has been going strong ever since. With over 3600 members we have a plan to

try to keep ladies active and engaged to strive for healthier lives. We have Co-Ambassadors and Run Coordinators who are the leaders in the group who volunteer to officiate the run/walk groups throughout the week. We encourage each other as well as other runners during races and we have a Walk Before You Run program geared to ladies who want to learn how to run. We not only run but we are an active community that builds long term relationships in our healthy living journey.

To learn more about BGR! their website is [www.blackgirlsrun.com](http://www.blackgirlsrun.com) or if you would like to join you can go to our Facebook page *Black Girls RUN! Indianapolis*.

## The disproportionate impact of the covid-19 pandemic on African Americans

Preliminary reports indicate that nationwide the covid-19 pandemic has gradually disproportionately affected African Americans. For example, while it is estimated that African Americans account for approximately 13.8% of the total US population as of 2018 (US Census Bureau), preliminary data from the Centers for Disease Control and Prevention (CDC) indicates that as of April 19, 2020, African Americans accounted for approximately 36.3% of total positive covid-19 US cases among those with reported race/ethnicity (CDC, 2020a). States reporting racial/ethnic data also show similar trends. For example, in Indiana, while African Americans constitute only approximately 9.8% of the state population, as of April 20, 2020, African Americans accounted for approximately 17.5% of the state's covid-19 positive cases and 18.9% of deaths due to covid-19 infection (Indiana State Department of Health [ISDH], 2020) which is almost twice the expected rate if infection and mortality rates were equal within the various racial/ethnic groups in the population.

The most prominent factor that has been proposed to explain the apparent disproportionate impact of the covid-19 virus pandemic on African Americans is the higher prevalence of chronic medical illnesses among African Americans. For example, during 2015–2016 the prevalence of hypertension among adults aged 18 years and older was significantly higher among Blacks (40.3%) compared to Whites (27.8%), Asians (25.0%), or Hispanics (27.8%) (Fryar et al 2017). Similarly, between 2013–2016 the estimated crude prevalence of total diabetes (diagnosed and undiagnosed diabetes) among adults aged 18 years or older in the United States was higher among Blacks (16.4%) compared to other racial/ethnic groups including Whites (11.9%), Hispanics (14.7%) and Asians (14.9%) (CDC, 2020b). In addition, between 2007–2009 asthma death rates were 75% higher for black persons than white persons (Akinbami et al 2012), and in 2018, compared to other racial/ethnic groups, Blacks/African Americans had the highest rate of HIV/AIDS (39.3%) (Hales et al, 2020) which causes immunosuppression. The apparent disproportionate impact of the covid-19 virus pandemic on African Americans could in-part be explained by the higher prevalence of these underlying chronic medical conditions because preliminary reports from China and a recent study in the US (Richardson et al, 2020) indicate significant associations between underlying chronic medical conditions such as hypertension, diabetes mellitus, obesity, asthma and immunosuppression and increased risk for severe disease, hospitalization and mortality due to covid-19 virus infection.



*Francis Mawanda, M.D., Ph.D., MPH*

The impact of underlying chronic medical conditions is compounded by lack of access to adequate healthcare. Evidence indicates that African Americans and other racial/ethnic minority groups are less likely to have healthcare insurance which acts as a barrier to healthcare access. For example, in cross-sectional survey involving 9443 adults with diabetes who participated in the 1999 Behavioral Risk Factor Surveillance System (BRFSS) in the US, higher proportions of Blacks (14.8%), Hispanics (20.7%), and members of other races (21.8%) were found to be uninsured compared to Non-Hispanic Whites (6.4%) (Gary et al, 2003). In addition, higher proportions Hispanics (23.9%), Blacks (19.5%) and members of other races (13.4%) reported cost was as a barrier to visiting a doctor than non-Hispanic Whites (8.2%) (Gary et al, 2003). Limited access to healthcare results in lack of adequate control, prevention and management of chronic medical condition which in turn results in increased risk of hospitalization and mortality from chronic medical conditions and possibly increased susceptibility to severe disease and mortality from covid-19 among African Americans and racial/ethnic minority groups. In addition, lack of access to health care can directly result in increased risk of death due to Covid-19 due to delay in seeking or failure in obtaining health care during the infection.

” *The impact of underlying chronic medical conditions is compounded by lack of access to adequate healthcare. Evidence indicates that African Americans and other racial/ethnic minority groups are less likely to have healthcare insurance which acts as a barrier to healthcare access.*

The disproportionate impact of covid-19 infection among African Americans may also be due to increased risk of exposure and possibly higher infection rates. African Americans have been found to more frequently have lower wage jobs particularly those that might result in increased risk of exposure to covid-19 infected persons and inability to enact preventative measures such as social distancing, working from home/remotely. The impact of increased risk of exposure would appear as increasing cases among Blacks/African Americans and other racial/ethnic minority groups while cases among Whites appear to decrease due to implementation of social distancing measures. A gradual increase in infections has been observed among African Americans during the current covid-19 pandemic.

In conclusion, while preliminary evidence indicates that the covid-19 pandemic has gradually disproportionately affected African Americans, the exact cause of the disproportionate impact is not known. Existing evidence indicates the cause is probably multifactorial including higher prevalence of underlying chronic medical illnesses, limited access to health care and socioeconomic factors. However, interpretation of current estimates of the impact of covid-19 virus pandemic on various racial/ethnic groups are based on incomplete reporting and limited testing. In addition, the exact mechanisms through which Covid-19 causes disease and the role of various host factors have not been fully elucidated. Further research is required to determine the causes of the disproportionate impact of the covid-19 pandemic on African Americans and to identify potential prevention and control measures.

## The disproportionate impact of the covid-19 pandemic on African Americans

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Gary TL, Narayan KM, Gregg EW, Beckles GL, Saaddine JB. Racial/ethnic differences in the healthcare experience (coverage, utilization, and satisfaction) of US adults with diabetes. *Ethn Dis.* 2003;13(1):47-54.

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Richardson S, Hirsch JS, Narasimhan M, Crawford JM, McGinn T, Davidson KW, et al. (2020) Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area. *JAMA.* 2020 .

## NOBCChE Volunteers, where are they now?

*Jeremy and Charlie Chiang*

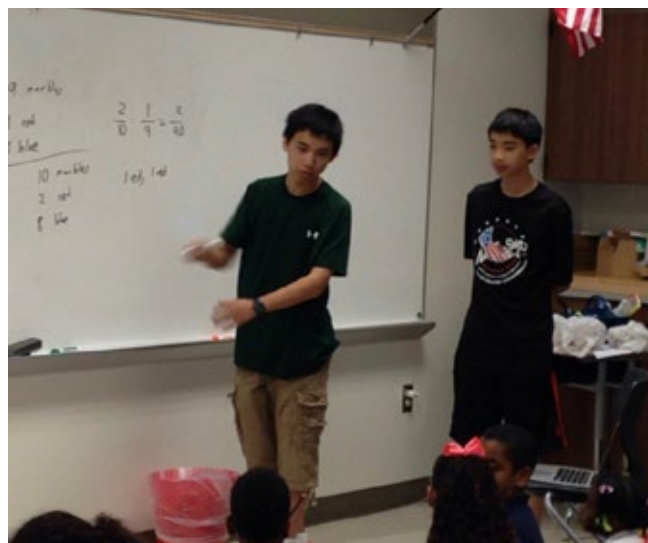
# Math runs in our family

My name is Charles Chiang. I'm currently a freshman studying Computer Science at Northwestern's McCormick School of Engineering. I'm also on Spirit Squad, part of Northwestern's cheerleading and mascot team. A lot of the interpersonal, non-technical skills I need for both homework and cheer involve working with others in an adaptable and creative way. In the rapidly evolving field of computer science, being able to collaborate on projects and move at a fast pace is essential. On and around the court, whenever we're not busy with fans or media there's always someone else to keep entertained (the kids are the rowdiest).

My work with NOBCChE through the lessons at the STEM Adventures camp was one of the first experiences I had working with children, and struggling to entertain them while trying to teach them math was one of the first challenges I faced during that time. It taught me to improvise, and teach to your audience. It taught me things that kids really like (candy and tricks are great), and things kids really don't like (boring, lecturing adults that just stand there). It taught me to be prepared for everything, and to always have a fallback plan when things inevitably go awry. My work with NOBCChE provided a background for me to build the skills I need to succeed.

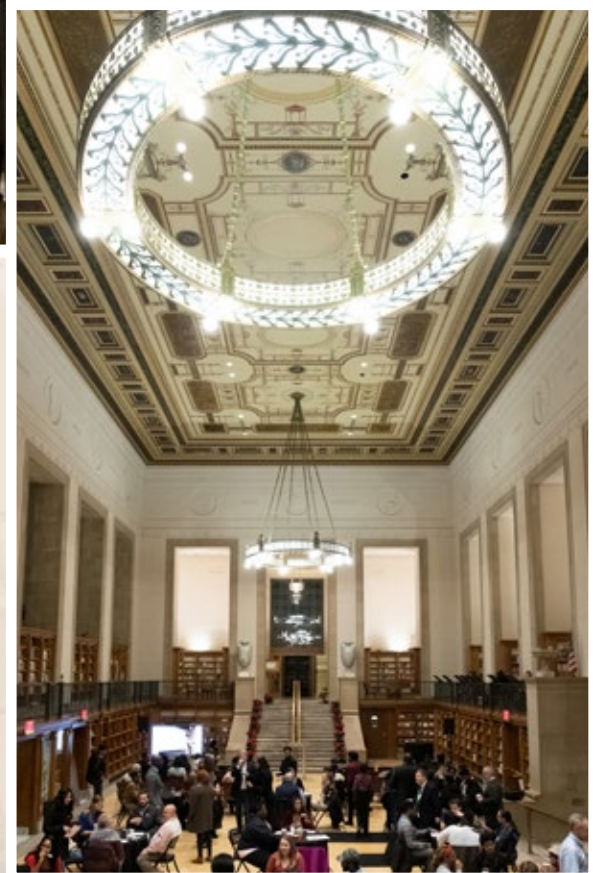
Math runs in our family. Our father constantly pushed me and my brother to learn math starting from a young age. As I got older, I began to develop an interest for math myself, and I appreciated his pushing us towards the pursuit of math. When Dr. Ardayfio asked me and my brother Charlie to create a math module for a science camp, we took that as a challenge to try and encourage and inspire others to like math. Our lessons were centered around fun facts and practical applications of math, such as the probability that two people share the same birthday in the same room. We hoped by making a fun experience out of numbers that others would be intrigued to seek out further math studies on their own.

Now I am a sophomore studying neuroscience at Vanderbilt University, although I continue to take math and business classes for my personal interests. I am actively involved with the Chinese association on campus as well as the American Chemistry Society. My interactions with NOBCChE during high school has made me seek out a local chapter of NOBCChE at my college, and I have been involved with them during my college career. Recently, I helped to connect the local Vanderbilt ACS chapter to NOBCChE, and we now have ACS come teach a chemistry lesson once a month at Hillwood high school. NOBCChE has certainly helped to make me more aware of the communities around me and to pursue the equality of education and opportunities for people of all backgrounds. I cannot thank Dr. Ardayfio and the NOBCChE community enough for having a profound impact on my life.



*Photo of Charlie and I during our first math module*

# End Of Year Celebration



## **AWARDEES:**

Dr. Jim McAteer  
Mr. Elmer Sanders  
Ms. Linda Washington  
Dr. Ayanna Shoulds  
Dr. Kim Steward  
Ms. Celia Ochoa  
Ms. Erica Young

# End of Year Celebration







# ***Graduations, Promotions, and Awardees***

Congratulations to all the NOBCChE  
Volunteers whom have graduated, been  
promoted or Received Distinction during  
the 2019-2020 Year.

We are so honored and proud of you.



## Jui Desai

Avon High School

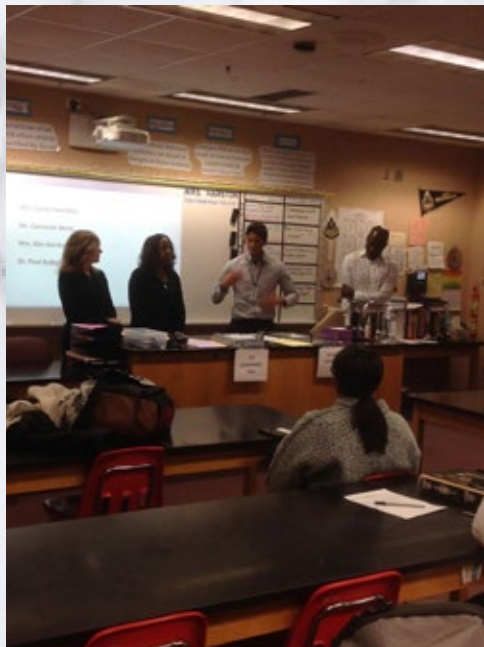
Jui is the salutatorian of her high school ranking #2 out of 719 students. Jui is such a dedicated volunteer she came to volunteer immediately after taking the SAT.



## Rose Schnabel

International School of Indiana IB Diploma  
Attending IU Bloomington as Wells Scholar

# Spotlight on North Central High School NOBCChE Club





## Kaleb And Kyle Edwards

IU Bloomington

Kaleb: Chemistry (B.A.) Human Biology (B.S.) minor Music Studies  
Kyle: Chemistry (B.A.), Biology (B.S.), and Criminal Justice (B.A.) minors in Psychology and Music Studies. Accepted in the IU School of Medicine MS/MS Program



## Nicolasitas Salas

Butler University, B.A. Biology and Psychology; Basic Training- Fort Sill, OK.



## RACHEL BOLER

Purdue University  
B.S. Biology

## MARILLE VELLEZ

IU Bloomington, School of Public Health  
B.S. Community Health



## NORA GILLIAM

Won the Barry Goldwater Scholarship in  
the Natural Sciences

Current student at IUPUI School of  
Science



## Anna Martin

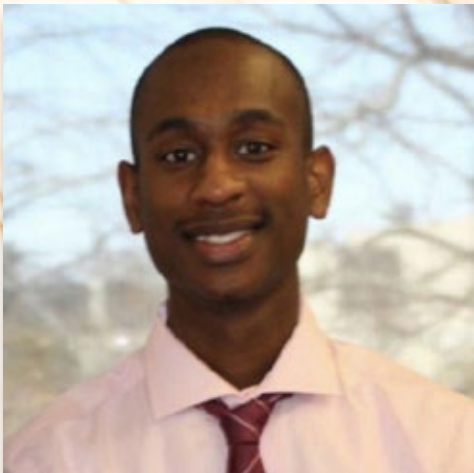
IUPUI School of Science  
B.S. (w/Honors) in Chemistry A.C.S. certified with  
a concentration in Biochemistry and minors in  
Mathematics and Biology.





## BINTOU DOUMBIA, B.S.

Butler University's Physician Assistant Program C/O  
2022



## PAUL SMITH, B.S.

Indiana University School of Medicine  
M.D. Class of 2024



## JORDAN FINCH, B.S.

Indiana University School of Medicine  
M.D. Class of 2024



## Sandra Daley.

Central State University  
B.S. Biology



## Krystiauna Theresa Cole.

B.S. in Chemistry concentration in Pre-Medi-  
cine, Indiana State University



## SAM FRANKS, M.D.

Finishing Cytopathology Fellowship at Washington University in St. Louis

Starting role as Pathologist at Ameripath, Indianapolis, IN.





## Kimberly Collins, Ph.D.

Promoted to Assistant Scientist in Medicine Indiana  
University School of Medicine Department of  
Medicine Division of Clinical Pharmacology



## Angelina Hernandez, Ph.D.

Promoted to Assistant Professor in the Health and Related Sciences Pathway at Los Angeles Trade Technical College



## Dawn Brown, Ph.D.

Medical Partner of Choice Award



## Tamica Collins, Ph.D.

Postdoctoral Fellow, Department of Molecular  
Genetics and Cell Biology

Awarded F32 Grant from National Cancer Institute



About The Cover



**ONLINE COVER** Nefarious Neutrophils. Hidradenitis suppurativa (HS), also known as acne inversa, is a debilitating skin condition of unknown etiology, characterized by painful nodules, sores, and scarring. Because neutrophils were identified in HS lesions previously, Byrd *et al.* took a closer look at the immune system's role in this devastating disease. Shown here is an image of a skin lesion from a patient with HS, stained for markers of neutrophil activity (peptidylarginine deiminase 1 in green and neutrophil

## Angel Byrd, M.D., Ph.D.

Research on the skin condition Hidradenitis suppurativa (HS) made the cover of Science Translational Medicine

Assistant Professor | Adjunct Assistant Professor  
Departments of Dermatology Howard University  
College of Medicine | Johns Hopkins University School  
of Medicine



## Carla Mangum, M.A.

Promoted to Medical Technologist II, Covance



## Rayna Hunt, Pharm. D.

Promoted to Clinical Staff Pharmacist  
South Shore Hospital



## Jane Njoroge, B.S.N.

Promoted to Clinical Research Scientist, Eli Lilly and Co.





## SUSIE ADJEI AND ZITA BECKSEN

IU School of Medicine  
M.D. Class of 2020  
Intern/Residency  
St. Vincent Hospital, Indianapolis (S.A.)  
Med Peds University of IL, St. Francis Healthcare (ZB)

**Fast Fact:**

Susie won the first NOBCCHE high school book scholarship 8yrs ago.



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**\$1,200 STIPEND**

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**\*FOR HIGH SCHOOL JUNIORS & SENIORS INTERESTED IN A HEALTH CAREER\***

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- Create an account and apply!

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## CONTACT US



### MICI-AHEC

University of Indianapolis  
Phone: 317-788-2001  
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- Provides additional test prep training for graduate level tests such as the MCAT, DAT, and GRE
- Aides as additional source of academic or professional help
- Work with participants to navigate through the application and registration process for graduate school

## PROGRAM OVERVIEW:

This comprehensive program provides educational opportunities to individuals who have received or about to receive their bachelor's degree.

The post-bac program is funded through the Health Resources and Services Administration (HRSA) under the Health Careers Opportunities Program grant.

The goal of this 18 credit hour program is to improve the participants' overall competitiveness into health professions programs as well as to improve the diversity in the community of graduate students going in to such fields.



## REQUIREMENTS:

- A US Citizen or Permanent Resident
- Completed an undergraduate degree in science or science-related field
- Interested in applying to health professional programs (medical school, dental school, OT/PT school, etc.)
- Earned at least a 3.0 GPA in undergraduate degree
- Submission of GRE and/ or MCAT, or TOEFL scores according to CAS graduate school (if taken)
- Must have taken the following courses:
  - 2 semesters of Biology w/ Lab
  - 2 semesters of Chemistry w/ Lab
  - 2 semesters of Anatomy & Physiology
  - 2 additional science courses