

# The Black Apothecary



## Greetings from the College of Pharmacy Student Council (CPSC) President

Simisola Williams, Third-year Student Pharmacist

### It is that time of the Year!

Greetings students, faculty, staff, and alumni. I would like to welcome you all back to what I'm certain will be an amazing academic year. On behalf of our Pharmily I would like to especially welcome the Class of 2022 to Howard University's College of Pharmacy. Howard University College of Pharmacy is a prestigious institution that was established over 150 years ago with the mission to provide pharmaceutical education of excellent quality to students with high academic, scholarship and leadership potential. The history of our university exemplifies our rich culture immersed in an ethic of hard work, academic excellence, and leadership and we are elated that you all have chosen to become a part of our family. Always hold the Howard name high, and never veer from the pledge you made to the



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pharmacy profession.

I hope that everyone has had a relaxing but productive summer and is ready to begin working towards becoming exceptional pharmacists. The College of Pharmacy Student Council is ready to serve the student body and with the help of Dr. Oluwaranti Akiyode, the student affairs dean, we will surely achieve our goal. We will be building on the foundation set by previous leadership to ensure the future of HUCOP remains bright. Our current executive members include: Jayla Briggs Council Vice President, Montrell Taylor Council Treasurer, and Simisola Akanbi Council Secretary. We are currently looking to fill chair positions— Student Advocacy Chair and Transitional Chair, as assurance that student concerns and transitioning through the program are addressed and advocated for.

Howard University’s College of Pharmacy breeds L.E.A.D.E.R.S. that strive for the utmost excellence and serves the community through the profession. In

## “L.E.A.D.E.R.S”

*Leadership Excellence Accountability  
Diversity Engagement Responsibility  
Service*

addition to highlighting student issues and needs our focus is to unify the College of Pharmacy and continue building our vast alumni network. We want to continue on the path of excellence set by alumni and inspire others to give back by providing the tools and resources needed to be competitive and on top.

There have been countless changes made over the course of the summer and we look forward to working with the student body to reaching our highest potential as pharmacists.

In closing, the executive board is excited to be working with everyone to brighten our future and build our network. I would like to thank our faculty and staff for their continuous efforts, the students for their work and commitment and alumni for their support. Lastly, issues will arise and its important to remember the issue is not “us” versus “them”, but instead it is a problem we all must work diligently to solve together. As the past council president said, “We are here to serve and represent you”. So with that said, Welcome Back!

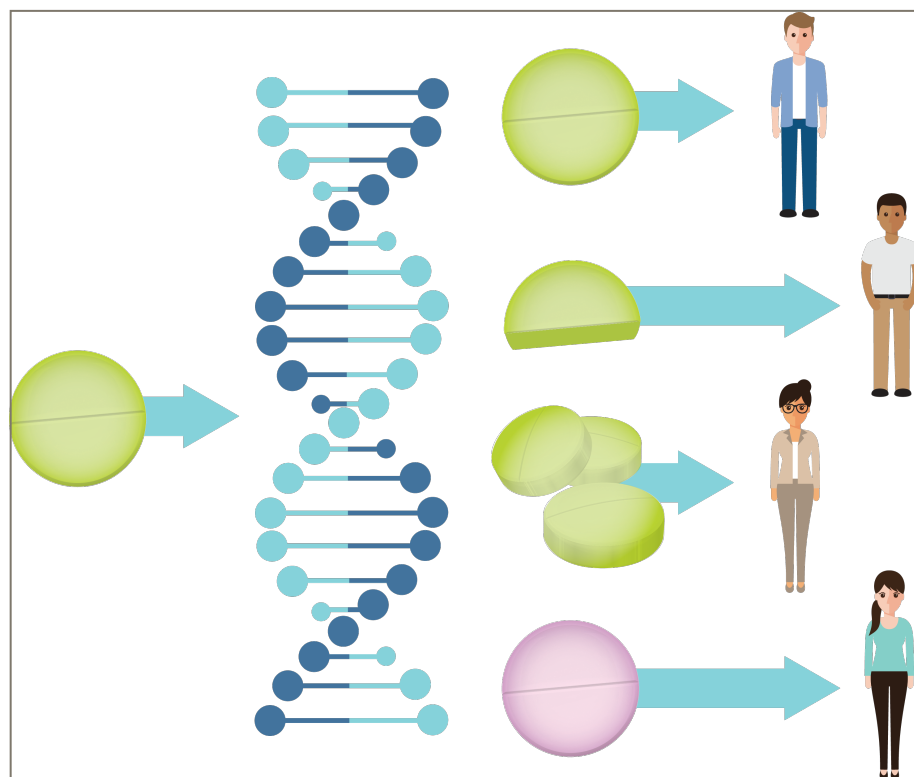
# The Evolution of Pharmacogenomics in Patient-Specific Drug Therapy

Thomas Iyile, Second-year Student Pharmacist

Appropriate prescribing of medications by physicians has been a controversy for years. Some believe that physicians prescribe medications based on their financial ties to Pharma while others believe that physicians use a “one size fits all” approach. As doctors become increasingly aware of the genome’s role in drug response, their approach in prescribing medication is beginning to take a turn.

The idea that genes might lead to variable drug responses was first recognized by Pythagoras of Samos around 510 BC. In 1908, the term *inborn errors of metabolism* was first coined by Archibald Edward Garrod, describing

congenital disorders of metabolism caused by genetic mutations that affect enzyme expression. These enzymatic defects led to accumulation of endogenous substrates, which introduced the notion that enzymatic defects caused by genetic variants can also lead to accumulation of exogenous substrates, including drugs. In the 1950s, further examples were seen after some general anesthesia patients experienced prolonged paralysis and



fatal reactions after succinylcholine injections. These adverse drug events were linked to pseudocholinesterase enzyme deficiencies.

In addition, 1960s studies showed significant similarities in the pharmacokinetic parameters of drugs in identical twins who shared 100% of their genes. This supported the idea that polymorphic contributions to drug metabolism are of importance. The term pharmacogenetics, which refers to single-nucleotide

polymorphisms, was first coined around this time, however, the term pharmacogenomics was not introduced until the 1990s.

Pharmacogenomics combines pharmacology, the study of drug action and effect and genomics, the study of the genome. The purpose of pharmacogenomics testing is to determine whether a specific medication is right for a specific individual, correlating gene expression with pharmacokinetics and pharmacodynamics. Pharmacogenomics in a clinical setting aims to maximize therapeutic benefit and minimize adverse drug events, thereby improving drug safety.

The Pharmacogenomics Research Network (PGRN) is a network of scientists who lead research in precision medicine. Their mission is to enable safer and more effective drug therapies. Through studies that focus on heritability, variants in drug-metabolizing enzymes, variants in genes not involved in drug metabolism, and combinations across multiple genes, it is in hopes that pharmacogenomics information will be actively applied to the clinical setting. This introduction of patient-specific drug therapy will lead to more accurate dosing based on characteristics like weight and age, will allow pharmaceutical companies to develop and market drugs for specific genetic profiles, and will allow doctors to prescribe the right medicine for individuals without a trial-and-error period.

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## **Top 5 Songs of Summer 2018**

**Nice For What- Drake**  
**I Like It- Cardi B ft. Bad Bunny, J Balvin**  
**This Is America-Childish Gambino**  
**No Tears Left to Cry- Ariana Grande**  
**In My Feelings- Drake**

# Life & Style Rx

Contributor:  
Yani Adere

trendsetters

beauty

hair

fitness

style on budget

quick recipes

## Welcome!

Life & Style Rx delivers the very best in fashion, beauty, hair, fitness, recipes, and HUCOP's trendsetters to The Black Apothecary. Look out for stores, sales, current trends, style tips and more!

### Trendsetter Feature: Shivali Amin

"My style in 3 words:  
Simple. Classy. Unique.  
I love minimalism."



Floral Blazer  
H&M  
\$50

White Sleeveless  
Duster  
Forever 21  
\$40

Recycle the same outfit on the right to the cute business casual fit on the left by replacing the blazer with a classic white duster.

Heeled Loafers  
ASOS  
\$60

### WANT A THICKER BEARD? FULLER EDGES?

# 3

NATURAL OILS TO HELP YOU ACHIEVE THIS

#### 1| Jamaican Black Castor Oil

Contains ricinoleic acid, which increases blood circulation & balances the pH of the scalp. Its anti-bacterial, anti-inflammatory properties help remove impurities & fight infections

Also used as a sleep remedy so we don't recommend using it before study sessions

#### 2| Peppermint Oil

Has an anti-bacterial, anti-inflammatory & carminative (digestive) properties. It relaxes the follicle through its cooling effects and promotes hair growth

Mixing a few drops of this oil in 2 ounces of water is known to open up & clear your sinus cavities + if you gargle it, it helps kill germs in your mouth & freshens breath

#### 3| Aloe Vera

Contains > 20 vitamins and minerals essential for hair growth. It's anti-bacterial properties help scalp remain build-up free. It is known to restore the pH balance at the roots of your hair. It can serve as a sealant over your moisturizers and leave-ins!

### QUICK AND EASY PROFESSIONAL NATURAL HAIR STYLES



### Trendsetter Feature: Mitchell Lynton

One habit that contributes to your success?

"Consistency"



Top Hat and Tails

Range \$200- 800

#### What/who influences your style?

I get a lot of my influence from runways from back in the day as well as a lot of fashion bloggers! I love unique pieces and see what suits me as long as it's flattering at the end.

#### Netflix or night out?

Netflix 📺 We feel you, sis!

#### Best affordable store?

Honestly, Forever 21 is actually stepping up their game but you have to find unique pieces and always look for promo codes when shopping online. Windsor is another store that has a lot of unique things as well.

#### Favorite music artist?

J Cole, Frank Ocean, Kendrick Lamar, Travis Scott, Brent Faiyaz. Just depends on my mood.

#### Album on repeat?

Currently don't have one but I bump to a lot of older albums than newer ones.

#### What/who influences your style?

Dwayne Wade

#### Three styles tips for our readers?

1. Your belt always has to match your shoes
2. Never wear black and brown together
3. Dressing is about confidence

#### Favorite music artist?

Jay-Z

#### Album on repeat?

Reasonable Doubt

## APhA-ASP's Work in Student Advocacy

Patrick Fotso, Third-year Student Pharmacist

“I alone cannot change the world, but I can cast a stone across the waters to create many ripples,” said Mother Teresa. Pharmacists are drug experts, so they are often considered the most accessible, but also the most under-utilized providers in the health care system. Yet, neither patients nor other health care

professionals can take full advantage of pharmacists without laws to facilitate access. The American Pharmacists Association (APhA) has been innovative enough to give voices to student pharmacists and pharmacists by asking them to share their stories of how they provide care to their patients. Healthcare laws that affect our profession and in turn our patients are decided in Washington D.C. (D.C). As a matter of fact, the growing number of baby boomers negatively correlates with the number of primary care

providers. Knowing these facts, our APhA student chapter (APhA-ASP) has had the obligation of addressing the healthcare disparities as the only

school or college of pharmacy in D.C. We collaborated with the Washington D.C. Pharmacy Association (WDCPhA), that has been in the forefront of addressing such disparities, in order to properly

advocate for the Collaborative Practice Agreement (CPA).

The CPA is used to create formal relationships between

pharmacists, physicians, and other providers that allow for the expansion of services pharmacists can provide to patients and the healthcare team. Back in 2012, a law approving CPAs between Pharmacists and Physicians was passed in D.C. Unfortunately, without any rules in place, D.C. pharmacists who practice outside of federal agencies have not been able to put this law into practice. Fast forward five years, the WDCPhA has strongly urged the swift passage and adoption of the CPA regulations to allow D.C. pharmacists the opportunity to address health disparities by providing more direct patient care to our D.C. constituents. The delay of this passage of regulations has been unnecessary,



unjustified, and unfair to the D.C. residents. In the fall of 2017, the Howard University APhA-ASP chapter joined public health advocates through WDCPhA to work tirelessly behind the scenes to create a letter-writing campaign that would increase local awareness of the expanded roles of pharmacists and ways in which they can help improve patient care through CPA.

Before putting this event together, we invited Dr. Andrew Gentles, the President of WDCPhA, to brief students on the importance of CPA and student involvement towards it. After this meeting, every APhA-ASP member went to every class to make sure that every student pharmacist had the opportunity to sign letters of support as a way to show diligence for the pharmacy profession. We managed to reach 245 student pharmacists and 37 faculty members in order to create a great push in the decision-making process coordinated by the Department of Health Office of General Counsel. Moreover, federally qualified clinics such as Community of Hope (COH) and Andromeda Transcultural Health (ATH) also pledged support for swift passage of the regulations of CPA. To

***“We believe provider status and CPA share the same mission: to fight for better access to healthcare in underserved areas.”***

build on this momentum, we invited an APhA Senior lobbyist, Alicia Kerry Mica, galvanizing our student pharmacists to write to our state representatives regarding the importance of passing H.R. 592 – Pharmacy and Medically Underserved Areas Enhancement Act also known as

provider’s status. The event was called “HUCOP Student Letter Writing Campaign Kickoff”, and it was created during the 2017 National Pharmacist Month (October 30<sup>th</sup>, 2017).

We believe provider status and CPA share the same mission: to fight for better access to healthcare in underserved areas. A mix of student pharmacists and faculty members were fully engaged in a great conversation with the panelists in order to understand the urgency to stand up for patients living in underserved areas. These activities positively affected our chapter members and community in such a huge way. First, as student pharmacists and student leaders in the Nation’s capital, our proximity to stakeholders provides us with the opportunity to increase engagement for our profession. We realized that our efforts must go beyond opening discussions and enlist the assistance of patient advocates, lawmakers, healthcare

professionals, insurance providers and most importantly future student pharmacists. Second, all student pharmacists including APhA-ASP members understood that the days of staying in the shadows and the policies that limit our scope of practice must change and we as student pharmacists must consistently take initiatives to do so.

We must engage, inspire, lead and organize campaigns to bring awareness to the profession of pharmacy. Third, we learned that advocating for swift passage of the regulations for CPA in the District of Columbia and provider's status would provide us with opportunities to establish our own practice niche upon graduation. Instead of saying.....

what jobs are we going to apply for when we graduate, the conversation will be "How can we create a CPA to work alongside the physician or nurse practitioner at this family clinic in our neighborhood." Last, we designed the theme "*The Time is Always Now*" by writing to our respective state representatives and incorporating policy and advocacy in our patient care projects moving forward.

This event has become our chapter's signature. This will be done every year, so every student pharmacist has the chance to be an advocate from his/her first year. It is our firm belief that student pharmacists must capitalize on every opportunity to make a monumental change in the future of our profession.

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## **The Versatility of a Pharm.D.**

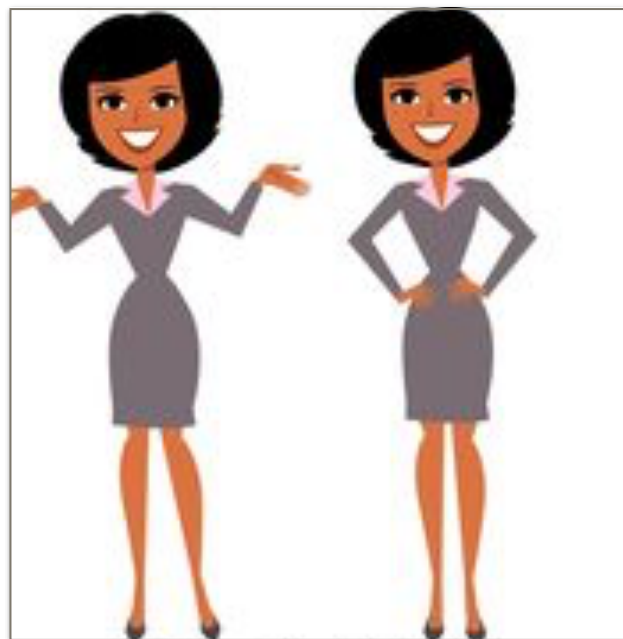
Shanice Anderson, Third-year Student Pharmacist

I am in my element and most content when the sun is shining, sand is between my toes and the ocean is washing over my skin. Ask any Floridian that lives near the beach and they would probably share these same sentiments. I love being from the Sunshine State and having the privilege of knowing what it is to live through an endless summer. It never occurred to me, however, that my geographical location would affect my career path in any way. I have wanted to be a pharmacist since the eighth grade; I knew this profession was for me the moment it popped up on my google search for "healthcare careers that don't deal with blood". I knew I could decide between working in a community setting or becoming a clinical pharmacist in the hospital, eventually settling on pursuing the clinical route. Little did I know, choosing to forego Florida pharmacy schools and



moving to Washington D.C. would greatly change the trajectory of my career path and expose me to an entirely new world of pharmacy.

Washington D.C. is probably one of the most diverse places in this country. From the people to the opportunities, there are so many different things to revel in and learn from. I had no idea that when I decided to attend pharmacy school here that I would be immersed in a world of pharmacy that was so much more than community and clinical. Because I am in our nation's capital, I have learned so much more about pharmacists that work for the federal government than I ever would have elsewhere. Since we are near (or in, depending on where you are from and how you look at it) the northeast, I have learned a tremendous amount about



the pharmaceutical industry and all of the many different facets and opportunities available for pharmacists in this sector. A PharmD degree is extremely versatile in that there are endless opportunities for someone who earns one, but because of where I was from and the opportunities available there, I had absolutely no idea!

My specific educational experience as a student at Howard University has completely re-shaped the kind of pharmacist I wish to become. My time at Howard has allowed me to engage with pharmacists in unique positions globally and to see that my degree can be a gateway to limitless opportunities, if only I know where to look. I've seen all of the amazing contributions a pharmacist that works for the Center for Medicare and Medicaid Services can make to help those in need, ensuring that healthcare can be accessed as a right and not a privilege. I have had

the opportunity to speak with pharmacists whose work in regulatory affairs ensures that proper protocol is followed on new medications being released to the market or advertised to the public to keep patients and consumers safe and in the know. I have also had the pleasure of working closely with pharmacists that work in association management for different professional pharmaceutical organizations such as the American Pharmacists Association and the American Society for Health-Systems Pharmacists, working to propel and protect our profession through innovative and groundbreaking policies and legislation.

As a third-year student pharmacist half way through the Pharm.D. program, I am getting closer to figuring out exactly what I'd like to do post graduation. In having experienced a life-changing internship and my APPE rotations right around the corner, I'm sure I will solidify my career choice soon and am thrilled about the endless possibilities that lay ahead in the years to come. To date, I have had the privilege of acquiring such a robust experience as a student pharmacist in Washington D.C. and wouldn't trade it for the world—even despite the fact that it snows here and the nearest beach is 3 hours away.

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