



Young Gifted and STEM Profile – Who Am I?

Dr Lynn Asante-Asare – UK

1. Who are you and what is your STEM Superpower?

My name is Lynn Asante-Asare, and I'm a medical student at Leicester Medical School, working towards becoming an oncologist. I was born and raised in South London, which included time in Wandsworth, Tooting, and Mitcham. I call myself a “Croydon-gal” because Mitcham has a CR4 postcode!

My STEM Superpower is having the stamina to learn *for years* without getting tired! I completed my GCSE's, A-Levels, BSc, and PhD by my mid-20's so having an athletic, bench-pressing mind is my STEM superpower. It doesn't mean I'm a genius at all, just that I can learn lots for long periods of time.

2. When did you first realise you were passionate about your STEM subject or field?

I took a trip to Ghana in year 9 to visit my sick grandmother. This exposure to the healthcare system in West Africa first sparked my interest in a career in medicine. In Africa, people die from things we rarely see on our side of the globe such as malaria, tuberculosis, cholera, dehydration, and malnutrition, to name but a few. These are often associated with poor living conditions and sanitation, or limited access to basic treatments like antibiotics, and vaccinations. I felt that studying something related to health care or biological sciences would allow me to make a difference.

I chose Science, Maths and Statistics at A level, which sparked my love for STEM subjects in a general sense. I got lots of A's and A*s at GCSE through working hard. I took a gap year in South Africa in 2010/2011. This was the year I lost a friend to Leukaemia, which is a type of blood cancer. That same day, I decided to become a cancer researcher and be a pure scientist, and I've been doing cancer research ever since. My love for medicine didn't bloom until mid-way through my PhD in 2017, where I realised my desire to combine a career in Science and medicine.

3. Describe the route you took, which lead from finishing your GCSEs until now.

I obtained 12 GCSE's in 2008 and 4 A-Levels in 2010. I took a gap year in 2010 teaching English and Maths to children in South Africa and back in the UK. I then went to the University of Warwick to study Biomedical Sciences in 2011.

Following good results in my first year, and a successful summer vacation cancer research placement at Warwick Medical School, I was offered the opportunity to take a year out of my degree to work with a pharmaceutical company. I completed my second year at Warwick University, then moved to Liverpool for a year to work as a pharmacologist researching cancer treatments in a pharmaceutical company



called RedX Oncology. I then did a summer vacation cancer research placement at the University of Cambridge Department of Biochemistry and the University of Oxford Department of Radiation Oncology, before returning to Warwick for the 3rd and final year of my BSc.

During this time, I was *awarded a scholarship* from Cancer Research UK to do a PhD back at the University of Cambridge. I graduated with a **First-class BSc and Honours in Biomedical Sciences** in the summer of 2015, and a few weeks later started my Ph.D. at the Cancer Research UK Cambridge Institute, which is part of the Cambridge University School of Clinical Medicine.

I was a student at St John's College Cambridge, completed my Ph.D. 4 years later in 2019, and following a 2-week break in Amsterdam, moved to Leicester where I'm now studying medicine at the University of Leicester Medical School.

4. If you had to study/focus on ONE STEM area for the rest of your career what would it be and why?

I want to spend my career in cancer research doing clinical imaging. You may be most familiar with clinical imaging machines like ultrasound scans, especially if you know anyone who's had a baby recently. You can see broken bones with an X-ray, cute babies cuddled inside a tummy using ultrasound, suspicious lumps in the brain using MRI, cancer that has spread to different organs using CT, and the inside of a beating heart using an echocardiogram.

I love that clinical imaging machines allow health care professionals to see if something has gone wrong inside a patient so they can help them get better.

5. What do you enjoy most about your day to day role?

When I was a BSc student, I loved learning basic biochemical concepts like DNA replication, enzyme catalysis etc. I wasn't bothered if the concepts had any application in the real world because I simply enjoyed the challenge of learning complicated things.

When I was a PhD student, I enjoyed the independence that comes with designing and running your own experiments daily. In high school chemistry, for example, teachers would give me an experiment protocol, I'd follow the instructions, see some cool chemical reactions, and then write about it in my coursework report. Doing a PhD is very similar, but you decide what the experiment is, make the protocol, and try it out yourself! The experiments rarely work first time around so it's exciting when you re-design a protocol multiple times, and finally get an experiment to work.

Now at a medical school, I enjoy the daily application of science in a clinical context. For example, we will learn about the basic structure of DNA, how abnormal DNA can lead to cancer, how you would diagnose cancer in a clinical setting and how you would treat the patient with medicine or surgery to help them get back on their feet.



Dr Lynn working in the lab at Cancer Research UK

6. Who would name as your main STEMspiration and why?

Professor Steve Jackson is the Frederick James Quick Professor of Biology, and a Fellow at St John’s College, University of Cambridge. I did an 8-week summer cancer research project in the Jackson Lab in 2014 after my pharmaceutical placement year in Liverpool. During my time in his lab, I used to avoid going to social nights out on Fridays. On my last day, we had a de-brief meeting where he congratulated me on my abilities and potential but was disappointed that I didn’t socialise with other members of the research team outside of the lab. His sincerity caused me to let my guard down where I explained my financial situation at the time, which was something I never did, even now. I simply couldn’t afford to go out socialising as I had other financial responsibilities.

People give little thought to what it’s like perusing careers in STEM and medicine when you come from a single parent, widening participation background. Train tickets to placements, summer accommodation costs, textbooks for entrance exams, laptop and software investments, stethoscopes, lab coats, networking events etc. are costs that build up, even despite receiving academic scholarships and bursaries. He made no judgement but rather proceeded to share his life and career journey from humble beginnings in Leeds to becoming a Professor in Cambridge. He knew exactly what I was experiencing and didn’t let his background hold him back. *Where you started doesn’t have to be where you end.*

7. Outside of STEM, what are your other hobbies?



I “speak” British Sign Language (BSL) and have 2 qualifications in basic and intermediate level BSL. I use this for science outreach to make cancer research more accessible to the deaf community.

I’m a gamer too, and currently have a Nintendo Wii, Game Cube, PS3 and Nintendo Switch at my disposal! I recently completed The Legend of Zelda: Breath of the Wild (if you know, you know!), and The Legend of Zelda: The Awakening, both on the Nintendo Switch.

My final hobby is drying flowers and making them into large picture frames or occasion cards, both for myself and to give away as gifts.

8. Lastly, if you could give our Young Gifted and STEM readers one piece of advice, what would it be?

Not everyone starts off shining, being the apple of teachers' eyes, or having lots of people believing in them. That shouldn't stop you from believing in yourself and building your own mental vision of what you want your future to look like. Along the way, you'll meet people who will see your potential, and give you the help you need. You don't have to be the loudest and even the most shy and unassuming students can go on to achieve many amazing things!

I've always tried to work hard, and perform well, but I was never the one to watch. I had my lovely mum and brothers to cheer me on, with a few people along the way like Professor Steve Jackson in Cambridge and Professor Lorenzo Figerio at Warwick who've offered support at opportune moments. That's all I've needed. A sixth form teacher made a dig at my ethnicity by telling me that my surname was too long to be a doctor, and that I would never get into medical school. Well, in a few years (fingers crossed), having a PhD and medical degree will make me a doctor twice! So, don't worry if you feel sidelined.

Your shining star is within you. It's not something someone else hands to you. It's yours and part of who you are so please believe in yourself. **Find what your good at and give it your best shot! It's never too late to try.**

