**Medicine**

I first became interested in the world of medicine when I moved to England from my home country Somalia in 2004, without any previous education. It was not until I had first been introduced to the education and healthcare system that I came to the realisation that people can live longer, healthier lives if provided with the right care. I have decided to pursue medicine, not only to give people a chance to lead a better life, but also to take full advantage of the opportunities that have been given to me.

My fascination with medicine has also led me to embark upon an extended project, within the topic of research into heart disease, focusing on the complexity of the heart and problems leading to myocardial infarction. Through this project, I feel that I have gained a small but significant insight into the scientific challenges that medicine has to offer, and have found the experiences both riveting and enticing. Within my A-level biology and chemistry syllabus, I really enjoyed studying enzymes and the chemical aspect of producing inorganic or using organic inhibitors to control metabolic reactions. As well as the effect of drugs on synapses, this is seen in the study of medicine quite frequently.

Attending a medical course at St George's University provided a good opportunity for me to consult with doctors and gain a professional insight into the vocation. I have also held a voluntary position at an elderly care centre for six months, where I was introduced to the caring side of the medical profession. Talking to patients about their experiences of care, I feel I have gained a degree of patience and empathy from my position at the centre, which I believe will aid me throughout the medical course and ultimately in the work place. I also managed to obtain another long term voluntary position at Queen Elizabeth hospital, where I gained an insight into the way that work load is distributed within a hospital setting, and the specific way in which different departments can work efficiently as a team to complete a task. Moreover, I have been entrusted for the past four years, with the responsibility of monitoring my grandmother's blood sugar level after every meal. To gain further insight into other aspect of the medical field, I spent two months at my local pharmacy, where I learned how various organisations within the healthcare system work together in order to holistically benefit the patients. Observing the pharmacists when distributing drugs and at times even formulate the drugs on site, permitted me to understand the procedure of the career. Though I have huge respect for these professionals, the kind of thrill that I gained when working with the respiratory team at Queen Elizabeth Hospital, while working with the terminally ill patients with diseases such as emphysema, was unmatched by my experiences at the pharmacy. This confirmed my desire to study medicine.

From a young age I have always been a fan of sports. It's only when I came to England that I got into the habit of playing football every Saturday morning in the park with people in the community. This routine taught me self discipline and allowed me to work on my time management skills, as well as showing me the value of commitment. I found this helpful when volunteering for my local charity shop, as I have been doing for the past five months. I was recently selected as the leading learner in my school, teaching additional maths to younger pupils, which has taught me about the importance of leadership and responsibility. I am currently participating in The Duke of Edinburgh Silver Award Scheme, which has given me the chance to obtain a first aid certificate, as well as the skills to carry out a cardiopulmonary resuscitation.

Studying medicine for me is more than just an excellent degree or an ideal career choice; it is an ambition and a passion that I have devoted a great amount of energy and motivation to realise, and privilege that I would love to obtain.

**Veterinary Medicine**

As a curious and able student with a keen interest in science and a deep-seated concern for animal welfare, I am eager to embark upon a career in veterinary medicine. Growing up with animals and taking responsibility for their care, as well as excelling academically, particularly in the sciences, I am excited about the prospect of beginning a challenging course which will lead me towards a varied and rewarding career as a veterinarian.

As a student of biology, I have focused on expanding my knowledge and understanding of the anatomy of, and biological processes that occur in, animals. Of particular interest has been the recent work I have completed on the immune systems of animals and their primary defences against disease and illness. Specifically, I have enjoyed learning about the effects of different drugs upon the processes and chemical reactions in an animal's body, such as anti-inflammatories which block the effect of COX enzymes and how penicillin weakens the cell walls of bacteria causing them to burst and die. In chemistry, I have enjoyed developing a wide range of analytical techniques that can be used to identify different molecules and compounds, which has provided me with a solid grounding in some of the analytical work, such as blood or urine tests, undertaken by practicing vets. Through maths, I have strengthened my problem solving skills and increased my ability to take a logical as well as an imaginative approach to problem-solving. AS Level psychology gave me a fascinating insight into animal attachment studies, explaining, through the work of Lorenz and Harlow, the behaviour of young animals towards their primary caregiver.

I have striven to compliment my academic progress with professional experience working with animals in related fields. During a placement at Companion Care vets, observing consultations and operations, I gained valuable insight into the everyday challenges that vets face, such as consoling owners and managing an intense workload. During my period of work experience, I was also trusted with a wide range of administrative responsibilities that helped support the smooth running of the practice, showing me just how vital teamwork and collaborative effort are in the operation of a successful practice. Since August 2015 I have been volunteering at Celia Hammond Animal Trust, where I am responsible for feeding, cleaning and socialising with the cats and kittens, as well as being trusted to administer some of the medications, which gives me the chance to ask questions and discuss the cats' conditions with the vets and nurses - such as the recent case of a kitten with brain damage, and its associated animal welfare issues. This experience has been a unique opportunity to work as part of a team in order to give something back to the community. Knowing that my efforts help directly to ensure the welfare of the vulnerable animals at the centre is very rewarding.

I love the outdoors and am a keen horse rider and enjoy helping out at my local RDA stables, allowing me to develop my communication skills through interacting with individuals with a variety of disabilities. Observing the care of the horses, mucking out stables, and feeding and grooming has provided me with an insight into animal husbandry. When helping in lessons with vulnerable younger riders, I have learnt that safety is a major priority. Completing my Duke of Edinburgh award was an amazing experience, allowing me to further develop my team working and problem solving abilities. I was lucky enough to complete the UNIQ biology summer school at Oxford University, which included the exciting opportunity to work in an undergraduate laboratory.

These experiences have reinforced my desire to study veterinary medicine and, eventually, to become a vet, employing my scientific understanding, compassionate nature and interpersonal skills to ensure the welfare of animals and their owners.

**Nursing**

I want to study nursing as I have witnessed the changes this career has made to people's lives, including my own. I have direct experience of the importance of nursing care: my mum spent two years in hospital recently and only because of the expert and sensitive care that she received is she here now. I have always wanted to work in a hospital environment as it would give me a chance to put my interest in science to use in practical contexts and real-world situations. Being able to make a difference to people's lives, through contributing to their return to health, would be a privilege.

The work placement I undertook at Guys and St Thomas's hospital gave me an insight into the hospital as a workplace, and I saw first hand how many different members make up the hospital community, and the range of roles the healthcare workplace encompasses. It was amazing to see so many people working together with such skill. I enjoyed being part of such a skilled team, and hospital staff supervising me as an assistant to the stoma care team told me that I seemed unflappable. The experience gave me even more respect for people who work within clinical settings, and made me even more determined that I want to eventually become a member of that community, and contribute to its success. The time I spent with the nurses really showed me how I want to be able to make that much difference to people's lives. During my work experience I also spent some time with the dietician where I found out how important diet is to a healthy recovery. I also spent time with the pre operative assessment nurse this really took my interest; I never realised that a patient needs to be at a certain level of health even before an operation.

At A level I have enjoyed developing my knowledge, understanding and skills as a scientist. In biology, I particularly enjoy the human aspects, as I am intrigued by the science behind our anatomy. I enjoy practical work, where I can practise and develop my hands on skills. I am aware of the need for a meticulous and precise approach in the collection and measurement of data. Chemistry has also helped me understand the importance of chemical balance within the body and this biological chemistry was the favourite part of my course. I enjoy maths because I love problem-solving. Finding imaginative solutions to difficult problems is really satisfying. I particularly enjoyed decision maths, because it is about real-world applications. In English, I have enjoyed developing my critical skills, through the analysis of a range of different texts. I love reading, and my favourite book is Frankenstein, mostly because of its warning about scientific arrogance: I think that human beings should be at the centre of medicine. I am currently undertaking an Extended Project, where I am enjoying the process of pursuing my own research and developing my own independent line of argument.

I am also a part time carer for my mum - she has Antiphospholipid Syndrome, and has experienced some complications which I have nursed her through. The experience has helped me acquire many skills in aftercare, from dispensing medication to dressing wounds. This has taught me to be very rational and patient even in extremely difficult situations, such as when a stoma bag has burst at 2 a.m. and emotions are high. I have learnt to overcome such emotions, and think fast and practically on the spot. Another very important skill I have developed is patience when dealing with difficult situations under pressure. I am a very patient and determined person with good interpersonal and communication skills.

Nursing seems to me to offer the ideal combination of intellectual challenge and care for the individual. I want to be able to change people's lives for the better by caring for them through the whole of their journey from illness to health.

**Pharmacy**

The study of pharmacy involves both biology and chemistry, subjects I love; it is an area of study at the forefront of scientific advance and development; it is vital to society, as we all rely on safe and effective drugs for our health. Pharmacy is an intellectually and morally compelling subject, and this is why I am applying for it.

Studying immunity and disease in biology, I was fascinated by the way our bodies are adapted to fight against infection. The immune system is a complex and highly developed one, yet its mission is simple: to seek and kill invaders. Being able to understand how the body functions has compounded my desire to study pharmacy. I want to be able to use my understanding of the complex systems underlying good health to help people understand the complexity and consequences of using drugs in everyday life. So many of us rely on drugs to make us feel better physically, but we also use compounds to affect our mental health positively. My recent module on neurology and the correct functioning of the brain’s neural network is also clearly relevant. I have developed good scientific skills from studying biology: my laboratory practice is meticulous; I can collect and log data and extrapolate conclusions from it, and have learned to write concise and accurate reports.

I love the creativity of scientific work and the interplay between theory and practice. For instance, in chemistry I have developed a good understanding of atom economy and percentage yield and used this in the design of a chemical manufacturing process giving high yield and very minimal waste. Yesterday I made iron tablets in class! We are moving on to aspirin next. I also understand the chemistry of a range of organic reactions and have further developed my lab skills, such as in my recent titration of methyl benzene. I can also use mathematical tools to explain reaction rates and help identify unknown compounds in analytical chemistry. Maths A –level has given me a good grounding in notation, algebraic manipulation, standard techniques around integration and differentiation, and made me able to visualise information using graphs and so on. Maths is difficult, and I have also learned therefore to be logical and persistent, and to be experimental in the range of techniques I apply to problems to try to solve them. My favourite module is the stats one, and so I have a good grasp of basic statistical tools and the various tests of significance you can apply to data-sets. This will help when thinking about evaluating the impact of different drug regimens.

The pharmacist plays an important role in the healthcare profession, and I learnt a lot about that role on my placement at University Lewisham Hospital. Shadowing a range of health care professions enabled me to witness how they work together, as a multi-disciplinary team, to ensure the hospital ran as smoothly as possible. On the orthopaedic ward, I had the opportunity to talk to pensioners with arthritis, and learnt what it was like to be a patient, seeing the hospital from their perspective. I learnt that there’s a lot more to being a pharmacist than dispensing medication. This summer, I took part in a two-week research summer school run by KCL focused on diabetes treatment and the reduction of the amount of insulin peopled used. In the first week, we worked at Denmark Hill hospital looking at the impact of mental health on diabetes outcomes. I sat in on group interviews with patients and so understand their perspective on illness and their views of medical staff. I also studied and debated the ethics of drug testing, presenting my findings to the Ethics Panel. I have also enjoyed lectures at UCL about spectroscopy and organic synthesis.

I am looking forward to the challenges which a degree in pharmacy will offer me, particularly as I will be the first in my family to have the opportunity to go to university, and also to a career where I can make a positive contribution to society.

**Pharmacy**

My interest in pharmacy was stimulated after I was diagnosed with rheumatoid arthritis at the age 16. Being started on a regime of disease modifying anti-rheumatic drugs propelled me to research the drugs that I was taking, particularly their mechanisms of action and side effects. Following this research I learned about concepts such as bioavailability, pharmacokinetics and pharmacodynamics and my passion to learn more about the drugs required to treat diseases such as rheumatoid arthritis ignited.

In order to gain experience of a work environment, I did voluntary work for one year at the orthopaedic ward at Queen Elizabeth hospital. My responsibilities included making beds, preparing food and talking to patients; as well as this I observed doctors, nurses, pharmacists and physiotherapists working together as a multi-disciplinary team to deliver care to the patients. This experience allowed me to understand the role of pharmacists in a hospital setting. I also have work experience in a local Lloyds Pharmacy and so I also have an idea of the work done by pharmacists in a different setting.

I believe that my study of chemistry, mathematics, and sociology provides me with the skills essential to undertake a degree in pharmacy. Chemistry, with its demand for accuracy in relation to analytical skills and knowledge of chemicals, provides the base for any approach to pharmacy. I also have enjoyed various aspects of my chemistry course, particularly organic chemistry topics such as organic synthesis where we made aspirin. Mathematics has helped me to develop my problem solving skills as well as to follow methods and processes logically in order to achieve the correct outcome. Sociology has taught me to be aware of, and sensitive to the needs of, different groups within society. It has also helped me to enhance my essay writing and communication skills. I can fluently speak Urdu, Hindi, and English, which is valuable for patient interaction.

For the past year, I have worked part time as a shop assistant at Greenwich and Bexley Cottage Hospice which is a charity shop in Blackheath. Through doing this job I have learned how to manage my time efficiently and enhanced my communication skills through interaction with the customers. Working as a teaching assistant for a reception class at Ealdham Primary School in 2009 was both fulfilling and interesting as I gained the skill of effectively communicating with very young children in an educational environment. Earlier this year, I arranged a van pulling competition in order to raise money for the charity Jeans for Genes which supports research into genetic disorders. I was the only girl in a 12 strong team, and successfully pulled a Ford Transit van some distance to raise money; I also organised a Christmas cake sale which raised a good sum of money for Greenwich and Bexley Cottage Hospice. As well as the financial aid, I helped to raise awareness of the work done by hospices to teachers and fellow students.

I have battled against the odds all of my life. I was estranged from my mother as a toddler and my world was turned upside down at age five when my father was given a lengthy prison sentence. This lead to me being put into care and I have not seen any of my birth parents since. Fortunately my foster family was loving and supportive and encouraged me to aim high as possible. I feel that I have made the most of the opportunity at my disposal despite facing many obstructions in my life. I am fully committed to a career in pharmacy and I possess the clarity of focus, strength of character and perseverance needed to succeed.

**Dentistry**

As a young child in Syria, I used to visit my aunt's dental clinic, where I was fascinated by the intricate work that she did and the delicate equipment used to execute complex tasks; I found myself asking more and more questions about the processes, and it soon became clear that dentistry was my future.

My curiosity grew as I was able to undertake work experience at a Kidbrooke NHS Practice. The work there included routine checkups and filling procedures and after closely observing the behaviour of the dentist, I discovered how focused and attentive to small details he was. I learnt about the importance of collaboration between the dentist and other team members, as well as the importance of excellent interaction with patients which is key to building relationships that can deliver the optimal treatment and ensure patient satisfaction. My experience at an implant specialist surgery where I witnessed procedures such as the attachment of a crown to an implant in a decayed tooth also helped me to see that patience and the ability to work carefully under pressure for long periods of time were key for successful operations. The work was extremely challenging and showed me the variety of procedures that dentists perform, as well as the vast knowledge that they possess.

My interest persisted through my A-level choices; I relish studying chemistry, particularly aspects of organic chemistry such as optical isomerism, which contributes in drug synthesis. This is key to dentistry, as being a dentist requires frequent prescription of a variety of drugs and therefore knowledge of their properties and suitability. Chemistry also teaches me the importance of rigorous and meticulous laboratory methods as well as how to spot patterns in data and analyse them, as does biology, where I have enjoyed learning about the nerves' main arteries, such as inferior alveolar, and how they conduct impulse to supply sensation to the lower teeth through sensory branches. Maths has helped me to develop strong problem-solving skills, and the ability to examine and analyse complex data. I'm particularly interested in how modern technology gives rise to new dental procedures, such as tooth implants and laser whitening.

I think I have an unusually international outlook for someone of my age. At school in Syria, I captained our maths team that won the gold medal in the 'NSA' Olympiad in Aleppo; I was also in the Scouts there, and have a good understanding of the importance of civil society during the time when there was an unstable civil environment. As a caring individual, who is keen to give back to the community, I found volunteering to help blind people use braille keyboards and contributing in the 'Ihsan' charity in their work for the deaf incredibly rewarding. I also lived in Rome for three years between 2004 and 2007, where I played nationally competitive basketball. Competing at this level meant I learned about resilience, commitment and the need to be able to keep calm under pressure - this set of skills which made me a great team member are clearly vital in the dental field. I speak relatively good French and completely fluent Arabic because I've moved around a lot, this helped me develop social skills as I learnt to get along with people from different cultures and interact with them effectively. One of the things I'm looking forward to as a professional dentist is the diverse backgrounds of people involved, and communicating with them in a respectful manner is crucial.

I know that dentistry is a very demanding course; I believe I have the commitment and dedication to accomplish my aims and be an asset. What's happened to my family because of the Syrian conflict has also made me aware of the value of education: I'm excited about the challenges that university will offer.

**Paramedic Science**

Life, death and uncertainty: these are the concepts that experienced paramedics will know far too well. I became inspired by the stories I read online about paramedics who saved multiple lives or witnessed the death of individuals and how they were able to mentally overcome the challenges of these traumatic experiences. For example, Sonia Powell - aged 73 - died whilst still in the ambulance; as a result, paramedics would have had to overcome her sudden death and still remain professional. This is something I myself am willing and able to take on.

Paramedics need the ability to adapt to changing environments. From participating in sports, such as football, I have experienced changing strategies and making appropriate changes to my performance depending on what is taking place in the moment. I have a strong sense of community and take pride in being involved in my local community whether it be by signing up to be a peer supporter, joining my school council or trying out local clubs such as football, tennis or running. By participating in sports such as boxing and football, I have honed my team working skills; on the other hand, boxing also encourages independence which can be a key element for paramedics who are working alone. Furthermore, at the age of 14 I started boxing because, like being a paramedic, this sport demands individuals to have high levels of discipline, stamina and independence. It requires everyone to push their body and strengthen the mind: essential abilities needed for this line of work. I enjoy giving back to my local community and this is the reason why I volunteer at the toy library in Abbey Wood for disabled children. In my eyes, becoming a paramedic is one of the best ways I can personally give back to not just my community but many others as well.

Studying health and social care has given me a greater and deeper understanding of health and social care services. For example, the care values and laws - such as the Care Minimum Standards Act or the Medicine Act, which govern and ensure that the services provided meet the expected standards. By having knowledge of relevant laws I will be able to provide a high quality of service. One of the most valuable skills that I will be able to incorporate in both areas (work placement and study) is my knowledge of the main functions of the 10 body systems. This knowledge will be a good foundation on which to base my further learning on the biological structure of the body.

In sociology, I have learnt that different ethnic groups have different ways of undergoing the same processes: for example, they may have different views on health care or treatment. This knowledge will enable me to understand and respect the culture of all ethnic groups, valuable for paramedics as they aid people from different cultures. Understanding diversity would prove to be beneficial for this sector of work as it promotes providing a service that treats people with respect and dignity. I take my academic studies very seriously and am able to take constructive criticism from my peers to improve the standard of my work; I believe it's important to be able to learn from others around you and work as a team. Doing work experience in a local nursery helped me to understand and practice changing my verbal and nonverbal communication skills depending on whom I'm speaking to.

Likewise, I have also completed two weeks' work experience in a hospital in the radiology department and trauma clinic. Through this I developed my ability to establish interpersonal relationships in a stressful professional environment. The skills I have acquired from these opportunities will prove vital to the paramedic department because the service users that paramedics help vary considerably. Relevant experience in communicating with people of different age groups and in different settings can aid in reassuring patients in difficult or sensitive situations. This is why I believe I would be a good candidate for this course.

**Medicine**

As a child my younger brother had continual episodes of unexplained illness. During hospital visits I experienced a variety of professionals working to reach a diagnosis; this gave me an insight into the breadth of specialties that a career in medicine might offer. Seeing doctors draw upon a vast base of knowledge and scientific evidence, whilst also approaching patients in a holistic fashion, fuelled my desire to study medicine.

My A levels have helped to equip me with key skills required in a doctor. Maths has developed my lateral thinking and problem-solving abilities. I love history as it helps me systematise and cross reference information effectively, and chemistry and biology have stimulated my interest in the scientific basis of disease, sparking excitement in the discovery of new treatment options. I look forward to combine my solid knowledge of the sciences and ability to approach questions logically to help me succeed as a medical student.

Participating in a NASA biomedical course, I learnt more about human physiology. In teams we devised a biological experiment, and my team reached the finals demonstrating successful teamwork. The Extended Project and UCL Medicine and Society course made me appreciate the importance of clarity in written work. My essay for the UCL course won the Best Essay prize, and prompted a discussion into the ethics of medical intervention. Volunteering at Queen Elizabeth's hospital since 2012 has offered me an insight into the complex journeys of patients, and how the workings of a multidisciplinary team ensure cohesion in patient care. I have also observed professional practice that I would like to emulate - those of teamwork, effective communication and empathy. I am also now aware of MRSA and infection control measures at the hospital. In A+E and ICU I became conscious of the quick decisions needed while maintaining professionalism. Working with a Consultant Cardiologist left me fascinated by the role that technology - such as angiograms, angioplasty, ablation therapy and echocardiograms - now plays in diagnostics and therapeutics.

I also carried out a placement at the NHNN, where I was intrigued by interesting cases of cluster headaches, and learnt general staples in patient care such as the Glasgow Coma Score and Waterlow Score. I furthered my cultural awareness by shadowing a Registrar in a hospital in Egypt, allowing me to reflect upon the key differences between their health system and the NHS. During my internship with EY, I learnt more about key features of the NHS such as audits and cost targets to maximise service. During the intensive three weeks I enhanced my presenting and networking skills, accountability, and professionalism. I particularly enjoyed the leadership opportunities when in charge of team activities.

I am enthusiastic about contributing to the growth and development of others. Volunteering at a local youth group, I have had to establish myself quickly as a trustworthy figure and a role model. I've also mentored students in a range of subjects, demonstrating and developing responsibility, time management and patience in the process. My leadership skills, integrity and accountability have grown through regular liaison with governors and the Heads of the school as part of the Student Voice team. I actively seek to improve my communication skills and was proud to reach regional finals of the Speak Up Speak Out competition. In addition I am a regular contributor to my school's science paper Alchemy, presenting complex ideas to a non-specialist audience.

In my spare time I enjoy a variety of activities. I regularly cycle which helps me make smart decisions quickly to stay safe. I also recently completed the Race for Life, overcoming exhaustion through the connection with the other participants running for one great purpose. I am dedicated, enthusiastic and committed to developing a lifelong career in medicine and am excited to embark on this journey.