



# NMSC Newsletter

## MESSAGE FROM THE PRINCIPAL

Dear Parents,

"The world's favorite season is the spring.  
All things seem possible in May."

This quotation, by the American naturalist Edwin Teale, seems very apposite as our final year students prepare for the start of their examination period. We wish them every success and that they will reap the rewards of their efforts and diligence over the last two years.

This month, we welcome two new members to the NMSC family and congratulate two existing members on their new roles.

Firstly, we welcome our new Biology teacher, Mrs. Sarah Bejaoui who has a wealth of experience and expertise in her field. We also welcome Mr. Leslie Noble, our new College Counsellor. I invite you to read their biographies in this newsletter.

In addition, I am delighted to announce that Dr. Penny Robotham, our chemistry teacher and Mr. Simon Haines, our mathematics teacher, have been promoted to the roles of Senior Teachers and members of the College Leadership team.

In April, our students continued their run of Olympiad success and we were delighted to celebrate these successes in our Celebration Assembly.

And finally, I would like to extend my thanks to all the parents who took part in our recent survey. A report on the results will be sent out to all parents in the coming weeks.

With best wishes

*Antonia Ciccanazzi*

Principal



## Upcoming Events

24<sup>th</sup> May Parliamentor  
Debate

25<sup>th</sup>-28<sup>th</sup> May inclusive –  
Mid Term Break –  
Residence remains **open**

## Important Announcement

### A reminder of Summer Term Dates:

#### External Examination Period

9<sup>th</sup> May – 22<sup>nd</sup> June 2018

#### Study Leave for B2

Begins 24<sup>th</sup> May and ends  
22<sup>nd</sup> June

#### A Level Results Date

## EPQ Enrichment Visit to Oxford

A group of six B1 students visited three of the Oxford University Museums at the end of April. We arrived in time for a quick visit to Blackwell's, the University Bookshop, where students were impressed by the size and range of the texts available in the Norrington Room:

All six students looking forward to spending their parents' money on books

We then moved across the road to the Museum of the History of Science. After a quick look around the galleries, the Education Officer led a workshop on the Astrolabe, an ancient instrument for working out the times of sunset and sunrise through the year. Students made their own astrolabes and then practiced using them; Rick is using his phone to look up the sunrise and sunset times for Oxford on that day to compare with the older method of working it out!



The students then had lunch while looking around the centre of Oxford before moving on to the Museum of Natural History, famous as the location of the famous Evolution Debate in June 1860, and the Pitt Rivers Museum. All three museums are fascinating places to visit; we were there as part of the taught programme for the Extended Project Qualification thinking about what museums are for, why we collect things and display them the way we do. The Pitt Rivers Museum is very unusual in displaying its items by type rather than by geographical location or historical time; the shrunken heads in the display case called "treatment of enemy dead" were particularly interesting. - **Mr Hout**



**Pitt Rivers**  
MUSEUM



## **Mrs Sarah Bejaoui – Biology**

Mrs Sarah Bejaoui is our new Biology teacher. She joins us from Qatar, in the Middle East, where she has been taking a lead role in training teachers for the Qatari government.



After gaining a BSc. at Leeds University then completing a PGCE in Secondary Science, I started my career in Warwickshire for the first five years, leading a team of teacher mentors and pastoral responsibility for the examination cohort. Students' cognition and motivation were particular interests, leading to me gaining graduate membership of the British Psychological Society before leaving to work in diverse international settings, in both public and private sectors, as a Head of Department for almost twenty years. Most recently, I have worked as a teacher trainer for the Qatari government as part of the education reform, with a specific interest in bilingual students. I am happy to return to the UK and especially to be part of a College devoted to the development of excellence in its STEM students.

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## **Mr Leslie Noble – College Counsellor**

Leslie Noble is a qualified counsellor and psychotherapist, and now studying for his BA (hons) Degree in Integrative Counselling and Psychotherapy at Coventry University. He has wide experience of working with young people in an educational setting and is currently also the school counsellor for our neighbouring school, Westwood Academy with whom we already share our dining facilities and sports programmes. Lesley says:

“As the school counsellor I offer a safe, supportive and confidential space for you to talk about your feelings, thoughts, concerns and what matters to you without judgement.

As an integrative counsellor and psychotherapist, I bring together effective and contemporary approaches to therapy, drawing on a variety of models to suit your individual needs. I work with individuals on an open-ended basis or for an agreed period of time with the aim of helping you to feel more comfortable and at peace in your life.”

We are fortunate to have secured the services of Lesley and are confident that this will have a very positive impact on the well-being of our students and staff.



## Celebrating success

13 might be unlucky for some, but not NMSC students - look at the haul of gold awards in Round 1 of the 2018 UK Chemistry Olympiad 2018

**The Chemistry Olympiad is the leading chemistry competition for students in secondary education across the UK.**

Run annually, the Olympiad is an opportunity for teachers to challenge their chemistry students, helping them to develop problem solving skills and apply familiar knowledge in new and interesting contexts.

This national competition provides an opportunity to stretch and challenge post-16 students studying chemistry. The annual competition enables the selection of a team of four students to represent the UK in the International Chemistry Olympiad, offering a fantastic opportunity for students to travel and meet fellow chemistry enthusiasts from all over the world.



Round 1 consists of a very challenging two hour written test of chemical knowledge, which is quite an event in itself! The questions are based on real world chemistry problems and are designed to stimulate debate and raise awareness of what chemistry is all about. They provide an excellent opportunity to develop some of the skills required for study at university and beyond.

The Round 1 paper is open to all post-16 students and was sat in school in January. Gold, silver and bronze certificates are awarded to the top-performing students. Over 900 schools entered the competition with more than 6500 candidates. Elite chemistry students from NMSC have again excelled in Round 1 of the prestigious RSC Chemistry Olympiad.

The College has had some of its best Olympiad results with 24 medals including 13 gold, 7 silvers and 4 bronze medals.

We were delighted with the successes of all the students who participated in this year's paper. Congratulations go to All B2 students, Anthony, Eric, Nina, Gemini and Joey, 100% of the B1 cohort successfully achieving a place in the top 7% of all entries.

Congratulations too to the PreA cohort 2016-2017 William, Luke, Tim and Coco, with successes from B1 for Rick, Leo, Ekaterina and Pierre. All achieving gold awards.

Silver awards (top 25% of all entries) were awarded to: Jack, Viviann, Anete, Aidar, and Robbie

Bronze awards were awarded to: Jonathan Pan, Wayne, Tom and Jason. They all worked extremely hard and they can all be very proud of themselves and should feel a real sense of achievement.

A special mention to Gemini, who was placed in the top 50 students nationally, winning best in College and was under consideration for a place at Round 2. A tremendous achievement.



### Celebrating success – Biology Olympiad 2018



**One Highly Commended and two commended awards**

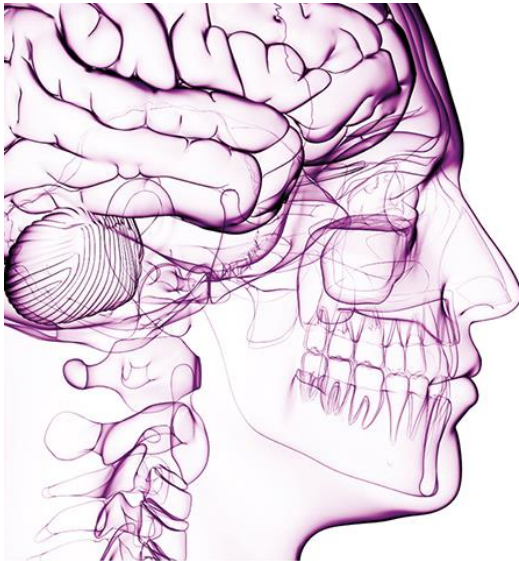


The BBO is open to students in post-16 education studying at school or college. The competition consists of two, 45-minute multiple choice papers to be taken online. The BBO challenges and stimulates students with an interest in biology to expand and extend their talents. It enables students to demonstrate their knowledge and to be suitably rewarded with publicly recognised certificates and medals.

The 2018 competition took place between 23rd - 31st January 2018 and we are delighted with the achievements of three of our who achieved national success. Well done to Anete, Valentino, commended and to Pierre who was top in college achieving a highly commended award.

## Cancer Research UK Brain Tumour Conference 2018

Royal Society of Medicine- London



CANCER RESEARCH UK  
BRAIN TUMOUR  
CONFERENCE 2018  
1 – 3 MAY 2018, LONDON, UK



From the 1st-3rd of May, I was lucky enough to be offered the opportunity to attend a 3-day conference highlighting the latest developments and research in the field of treating Brain tumors. Throughout the 3-day conference I was lucky enough to attend sessions and lectures every single day by Pioneers and global leaders of research into GBM (Glioblastoma Multiforme), one of the deadliest forms of brain tumors (with a very poor prognosis), as well as taking part in engaging panel discussions about the future challenges in the field of Oncology.

During Day 1 of the conference, I attended a session titled: “Cellular and molecular drivers of Brain Tumours” whereby 4 eminent researchers each gave a session with their own unique perspective on what they deemed to be the drivers of Brain tumors from an immunological, epigenetic, genetic and biochemical perspective. Most Notably, Professor Jeremy Rich presented a research paper which demonstrated that a subset of glioblastoma cells shares characteristics with somatic neural stem cells and cancer stem cells which are resistant to radiation and highly angio-genic. The results from the Rich-Lab suggest that cancer stem cells are important determinants of the overall behavior of glioblastomas and that cancer stem cell directed therapies may be effective in controlling glioblastoma growth. I was intrigued to learn more about how this research could translate into any therapeutic relevance and during the panel discussion I was pleasantly surprised to discover that Bevacizumab (Avastin), a Vascular endothelial growth factor (V.E.G.F) neutralizing antibody, has demonstrated activity in clinical trials for GBM patients supporting potential utility of anti-angiogenic therapies for brain tumors. The next presentation involved a discussion on how a better understanding of cancer as a disease may lead to the development of more efficient treatment’s and therapies from experimental data. The discussion manly evolved around Transcriptional profiling of large tissue samples which lead to a better understanding of the heterogenic nature of Tumours and the introduction of a selectively toxic Beta-Gboxin drug to the primary tissue tumor proved effective as Large transcriptional differences were induced such as the expression of ATF4 proteins which are a stress response from cancerous cells. The challenge that faced researchers now was how to ensure that the Gboxin toxin crosses the Blood Brain barrier to administer the drug to the correct primary tumor site

location. A potential solution to this problem was addressed in a later session by Dr Elga de Vries who proposed the use of functional ultrasounds to induce microbubbles that locally damage endothelial cells on the tumor site to deliver the drug or through using monoclonal antibody conjugated nanoparticles (COX26). The only problem with the latter solution was of course a question of the efficacy of small dosages being delivered to large primary tumors which have already metastasized.

During the 2nd day of the conference, I had a chance to talk to and engage with researchers at the Exhibition viewing center whereby many keen researchers presented their research. It was only then that I have realized how interdisciplinary research has become after seeing how physicists and chemists worked alongside medical researchers to achieve truly remarkable accomplishments that positively propel and expand humanities scientific knowledge further. Strikingly a group of chemists and medical researchers from the university of Oxford looked at using Raman spectroscopy for the early diagnosis of GBM tumors. This experience had made me extremely proud to be a student at a specialist STEM college with a strong emphasis on the sciences and mathematics as well as being taught them in a harmonious/ inter-disciplinary rather than individualistic manner.

This was a truly humbling experience and being the youngest attendee of the conference was a true honor and privilege that I will never forget. Witnessing and talking to professors who have dedicated their entire lives to research and towards better understanding and treating cancer has re-iterated how rewarding a career in medical research can be. Upon close reflection to attending this conference, I have gained an appreciation as to how science can be used to uplift society and how research in the Lab and clinical trials can translate into therapeutic drugs and treatments that save life's. It is estimated that 1 in 3 people will or have been affected by cancer at some point and therefore observing this revolution in the field of Oncology because of technological advancements is a true privilege and I hope that one day I can play even a small role in treating and advancing this field further.



**- Pierre Kostanteen**