



Easter Term 2021

E A G L E E Y E

Portering in a pandemic
Transforming Second Court for the 21st century
St John's rowers bring Boat Race joy

WELCOMES AND CONGRATULATIONS

Baby joy for Dr Joyce

Congratulations to Dr Hannah Joyce who welcomed baby Dominic Alexander-Webber into the world on Saturday 9 January at precisely 9.27am. Along with Hannah in the family picture are husband Jack and their four-year-old son Patrick.



From the NHS to College life for nurse Ruth

New College Nurse Ruth Dean has swapped NHS surgeries for the grand surrounds of St John's after a 40-year career in caring for others.

Ruth joined in April as the new College Nurse and Head of Health, taking over from Emma Manuel who has relocated to the Pennines. Ruth has been an NHS nurse for four decades, and since 1994 has been a practice nurse in many of the GP surgeries around Cambridge and the surrounding area, including Newnham Walk, Trumpington Street and Bridge Street. Her new role is her first foray into life at a Cambridge College, but she has had many interactions with students over the years in the various practices that the Colleges feed into.

When in Bridge Street, Ruth worked with former College Nurse Maggie Hartley, and would come to St John's in the winter months to do the flu vaccines. "I loved the history and friendliness of the College, and saw the sort of close working relationship that you can have with a College Nurse, so when the job came up here, I thought why not give it a go. Do something different and have no regrets."

Ruth is looking forward to working with the students, who she hopes will keep her feeling young, and she aims to create



Credit: Nordin Catie

a pleasant collegiate experience so everyone feels as stress-free as possible and can enjoy Cambridge life. At a time when mental health and wellbeing are more important than ever, she also wants to teach resilience. "Prevention is better than cure. I think the pandemic has really opened up the mental health conversation. We all have mental health that we have to look after, and we need to know that it's alright not to be alright."

In her spare time, Ruth loves to knit – although she has more items unfinished than completed – and she likes to

read, an activity she has got back into during the pandemic. She enjoys spending as much time as possible with her grandchildren. "I also love dogs, and used to have an Alsatian until very recently.

"This is the start of a new chapter for me after 40 years in the NHS. And I now have a fabulous view over Forecourt. The College will soon be opening up and be busy and frenetic, and I'm really looking forward to it."

Ruth can be contacted on Ruth.Dean@joh.cam.ac.uk or on 01223 338664.

Welcome to our new staff

Ruth Dean – College Nurse (see above)

Wilma de Oliveira – Bedmaker

Janice Keeley – Bedmaker

Jo Beatty – Senior Development Officer (Annual Giving)

Congratulations to...

Stuart Shepherd, Section Chef B, who reached 25 years of service at St John's in April.

Emily Moss (formerly Blackman), HR Co-ordinator, who married Paul Moss in Essex on 5 December.

Welcome to *Eagle Eye*,
the magazine for staff,
Fellows and students of
St John's College

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Eagle Eye

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Front cover: Head Porter Steve Poppitt,
bottom, with some of the Porters and
Custodians. Back cover: Deputy Head Porter
Sean Gladwell, front, with more of the
team. Cover photo credits: Nordin Ćatić.

NOTE FROM THE MASTER



June already! Brighter, longer days, and an edition of *Eagle Eye* full of College news to cheer us towards the finishing line of such a challenging year. There is a lot to celebrate in College as we near the end of the Easter Term. Tinged with relief that we *will* make it.

Within these pages you'll learn more about how our Porters, under Steve Poppitt's quietly authoritative leadership, have coped at the frontline of demands and challenges of Covid-19. Anyone who has been into St John's in the last 12 months will have reason to be grateful for their calm, confident and positive approach. That same gratitude extends to everyone who has been working in the College these last months. It's not only that they've kept us safe, well fed, healthy and with space to think, work, rest, reflect and exercise; they've helped sustain a positive and cheerful atmosphere even in the darkest, longest winter days.

For those of you who have had to stay home, working remotely or patiently sitting out furlough, I hope you are looking forward to getting back into the swing of College life, reconnecting with your team and with friends across

College, in the weeks ahead as the government restrictions ease. I've loved seeing many of you for a tea and cake in the Lodge garden these last few weeks – a succession of welcome reunions, and for some of us, many first encounters in real life.

And real life is now picking up the pace. I hope you spotted the news of St John's intention to fully fund tuition and living costs for UK undergraduates coming to John's from very low income backgrounds. These free places are a pioneering move for Cambridge, and nationally. It's been thrilling to see the wide welcome given to our plans, all made possible by a very generous £14m donation, and we'll now be fundraising hard to match that initial contribution.

More immediately, and again thanks to the fabulous generosity of a donor, we're now in the final stages of appointing the contractor to redevelop the Buttery and bar, and to create a much-needed café. It will be about 12 months under construction, and I'm confident that when these new facilities open in September 2022 (all being well), they will be a huge success and boost social connections across the whole College.

So, lots to look forward to. But, nothing to look forward to as much as getting together, and if all goes to plan, there will be plenty of opportunities for that in the weeks to come. Fingers crossed!

A handwritten signature in black ink that reads "Heather Hancock". The signature is written in a cursive, slightly slanted style.

Heather Hancock
Master of St John's College

NEWS ROUND-UP

Senior Tutor appointed at St John's



A new Senior Tutor has been recruited to steer and develop the academic environment of St John's College.

Richard Partington, currently Senior Tutor and Fellow of Churchill College, Cambridge, will join St John's in August, and formally takes up his new role as Senior Tutor from 1 September 2021.

The Senior Tutor is the College's senior academic officer, providing academic leadership across a broad range of educational activities and student welfare.

Richard Partington grew up in Liverpool and studied History at Sidney Sussex College, Cambridge, in the late 1980s as the first member of his family to go to university. Richard passionately believes in facilitating social mobility through access to university, and is equally committed to maintaining the highest academic standards. He has been a regular commentator in the national debate on education, access and social mobility during his 14 years as Senior Tutor at Churchill.

■ Full story: joh.cam.ac.uk/senior-tutor-appointed-st-johns

Theo helps make Boat Race history



Credit: Nordin Caric

St John's rower Theo Weinberger helped Cambridge win the 2021 Oxford and Cambridge University Boat Race.

The MPhil postgraduate student in Scientific Computing was a member of the victorious men's Blue Boat crew at the Gemini Boat Race in Ely on Easter

Sunday. The 22-year-old rowed in the bow seat after missing the chance last year to race in the men's reserve boat, Goldie, when the event was cancelled due to the pandemic.

■ Blondie a highlight for St John's rowers – see page 12.

Climate crisis action plan

St John's has launched a series of 'big and demanding' climate crisis commitments to help the College reach net zero greenhouse gas emissions by 2050.

The College's bold manifesto has been launched by Heather Hancock, Master of St John's, and will be embedded in every aspect of life in College.

St John's has also adopted a policy of divestment in all meaningful indirect fossil fuels investments by 2030 – the

College divested from all direct fossil fuel investments in 2013.

Heather said: "At St John's we have decided to focus our efforts and resources on the big, demanding changes where we can see the greatest return. We are attaching a sense of urgency to making headway on our longer term commitments, and we are determined to 'do' rather than just discuss what ought to be done."

■ Read the full story on our website.

Pilkington Prizes for College academics

Two Fellows from St John's were awarded the Pilkington Prize in recognition of teaching excellence. Dr Hannah Joyce, Director of Studies in Engineering Part IB, College Lecturer in Engineering and Reader in Low-Dimensional Electronics,

and Dr Edward Tipper, Director of Studies in Earth Sciences and College Lecturer in Earth Sciences, are among 13 winners of this year's prize, awarded by Cambridge Centre for Teaching and Learning.

Artificial intelligence could ‘crack language of cancer and Alzheimer’s’

Powerful algorithms used by Netflix, Amazon and Facebook can ‘predict’ the biological language of cancer and neurodegenerative diseases like Alzheimer’s, scientists have found.

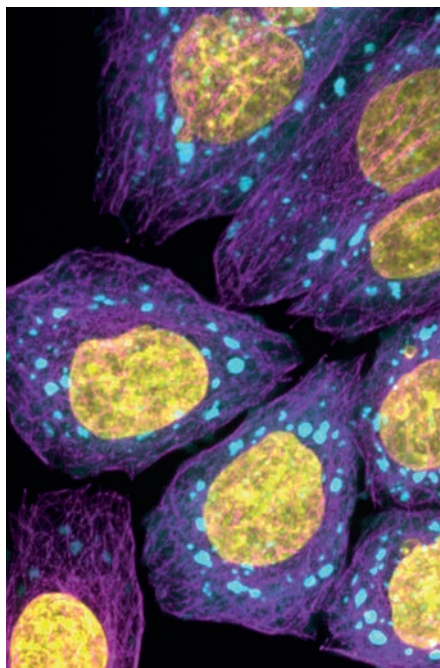
Big data produced during decades of research was fed into a computer language model to see if artificial intelligence can make more advanced discoveries than humans.

Academics at St John’s found the machine-learning technology could decipher the ‘biological language’ of cancer, Alzheimer’s, and other neurodegenerative diseases. Their ground-breaking study was published in the scientific journal *PNAS* and could be used in the future to ‘correct the grammatical mistakes inside cells that cause disease’.

Professor Tuomas Knowles, lead author of the paper and a Fellow of St John’s, said: “Bringing machine-learning technology into research into neurodegenerative diseases and cancer is an absolute game-changer. Ultimately, the aim will be to use artificial intelligence to develop targeted drugs to dramatically ease symptoms or to prevent dementia happening at all.”

Every time Netflix recommends a series to watch or Facebook suggests someone to befriend, the platforms are using powerful machine-learning algorithms to make highly educated guesses about what people will do next.

Dr Kadi Liis Saar, first author of the paper and a Research Fellow at St John’s, used similar machine-learning technology to train a large-scale language model to look at what happens when something goes wrong with proteins inside the



Fluorescence microscopy image of protein condensates forming inside living cells.

body to cause disease. She said: “The human body is home to thousands and thousands of proteins and scientists don’t yet know the function of many of them. We asked a neural network based language model to learn the language of proteins.

“We specifically asked the programme to learn the language of shapeshifting biomolecular condensates – droplets of proteins found in cells – that scientists really need to understand to crack the language of biological function and malfunction that cause cancer and neurodegenerative diseases like Alzheimer’s. We found it could learn, without being explicitly told, what scientists have already discovered about the language of proteins over decades of research.”

■ Ella’s summer lab work leads to world-class research – see page 14.

Computers help struggling families

Old computer hardware from St John’s has been recycled to support families and children in need during the pandemic.

The equipment was donated in January 2020 to Emmaus Cambridge, a charity supporting people to work their way out of homelessness, following an upgrade to College staff machines. Amy Leung,

College IT Administrator, said: “The pandemic has highlighted how challenging it can be for some families in Cambridge to access the technology needed for remote learning. We are very happy to have played a small role in helping children to continue to receive an education during the disruption Covid-19 has caused.”

Ancient bear faeces advance DNA science

Scientists have sequenced ancient DNA from soil for the first time and the advance will transform what is known about everything from evolution to climate change.

The findings have been described as the ‘moon landings’ of genomics because researchers will no longer have to rely on finding and testing fossils to determine genetic ancestry, links and discoveries – and it is thanks to Stone Age black bears who defecated in a remote cave in Mexico 16,000 years ago.

Scientists from The Lundbeck Foundation GeoGenetics Centre, University of Copenhagen, led by Professor Eske Willerslev, foundation director and a Fellow of St John’s, recreated the genomes of animals, plants and bacteria of microscopic fragments of DNA found in Chiquihuite Cave. The results, published in *Current Biology*, are the first time environmental DNA has been sequenced in this way.

Fellows win ERC grants

A physicist and a statistician from St John’s were among 209 leading researchers to win a share of €507 million in funding from the European Research Council ‘to follow their scientific instinct and dreams’.

Professor Sir Richard Friend, Director of the Energy Transitions Interdisciplinary Centre, and Professor Richard Samworth, College Lecturer in Pure Mathematics and University Professor of Statistical Science, were awarded Advanced Grants of €2 million and €2.1 million respectively. Sir Richard will use the funding to research a new class of semiconductors, while Professor Samworth will explore robust statistical methodology and theory for large-scale data.

Teaching award triumphs

Professor Janet Lees and Dr Theresa Biberauer were named winners in the virtual Cambridge SU Student-Led Teaching Awards, and four other members of St John's were runners-up.

Professor Lees, Professor of Civil Engineering and College Lecturer in Engineering, came first in the Lecturer category; Dr Biberauer, External Director of Studies (Linguistics), College Teaching Associate, St John's alumna and a Fellow of Churchill College, won the Small-Group Teaching award (Arts, Humanities and Social Sciences). Both described the ceremony as 'moving and inspirational'. The shortlisted nominees from St John's were: Emma Manuel, Dr Tomas Larsson, Dr Georgina Evans and Stefania Costea.

Royal Society Fellowships

The Royal Society has elected three outstanding St John's researchers to its 2021 Fellowship of eminent scientists: Professor Usha Goswami CBE, Professor Richard Samworth and Professor Benjamin Simons. Alumnus Professor Sir Ian Boyd FRS, Professor in Biology at the University of St Andrews, was also elected.

In addition, Professor Simons, Royal Society EP Abraham Professor in the Department of Applied Mathematics and Theoretical Physics and a Senior Group Leader at the Wellcome Trust/Cancer Research UK Gurdon Institute, has been elected to The Academy of Medical Sciences Fellowship.

Singing success

St John's Music undergraduates Tom Butler (third year) and George Herbert (second year) together won the 2021 Clare College Song Competition in May. Tom sings bass in the College Choir and George, who won the Accompanist's Prize, is the current Herbert Howells Organ Scholar.

Philosopher's thumbs-down to social media 'likes' gets award thumbs-up



Credit: Nordin Catic

The Royal Institute of Philosophy has awarded a 2021 essay prize to a St John's researcher for the first philosophical analysis of 'liking' on social media.

The essay, which focuses on Facebook, warns that 'likes' encourage communicative laziness while 'like tallies' fuel fake news, 'gamify sociality' and play to our psychological weaknesses.

'Please Like This Paper', published in the Institute's journal *Philosophy*, argues that while 'like' functions help social media users feel they are being heard, they might actually be making us worse listeners/readers. It also suggests that 'likes' and 'like tallies', in particular, play a central role in fostering political polarisation.

Author Dr Lucy McDonald, a Junior Research Fellow in Philosophy, says of liking: "It is a form of pseudo-engagement which absolves us of the guilt of not responding to others' posts but creates the bare minimum of human connection."

An active social media user herself, she accepts that 'like' tallies give us information we previously lacked, but said: "This information seems to have had a number of corrosive effects on internet discourse. These effects seem worrying enough to offset any particular benefits 'like' data may offer".

Many people, McDonald observes, 'like' friends' posts 'routinely and out of a sense of obligation, without really reading or engaging with them: "We expect our friends to listen to us, not to ignore us, and so 'liking' posts helps reassure people that they have an audience, which is still listening and engaged."

She points out this behaviour is rarely discussed in contemporary philosophy of language. "This tiny act could seem inconsequential or frivolous. After all, to 'like' a post is simply to press a button. Yet it is of huge social significance. With 'likes' come considerable power."

Eye of the tiger

Veterinary surgeon Dr David Williams, Associate Lecturer in Veterinary Ophthalmology at the University of Cambridge and a Fellow of St John's, has saved the eye of a tiger called Ratna at Shepreth Wildlife Park in what is believed to be the first operation of its kind on a big cat.

Law student prize

Christopher Hose, a fourth-year BA Law student, won the title of Best Student Speaker for what judges called 'his ambitious presentation on good faith' at the inaugural University College London (UCL) Private Law Conference in May.

Free places plan hits the headlines

News that St John's College has launched the UK's most generous programme to fully-fund the education and living costs at Cambridge University for students from lower-income backgrounds has been met with widespread support.

The Free Places financial support package will cover tuition fees, accommodation costs, and other day-to-day living expenses for up to 40 undergraduate students at a time.

Heather Hancock, Master of St John's, was interviewed on Radio 4's *Today* show to talk about the initiative on 25 May, and the programme made national news headlines.

Eligible students will be able to access more than £17,000 of financial support for every academic year at Cambridge. The money will not need to be paid back, allowing students to graduate completely debt-free from one of the world's leading universities.

The unprecedented programme will cover the £9,250 annual tuition fees for

all qualifying undergraduates. In addition, it will fund rent and maintenance costs. Each qualifying student will receive around £51,000 of support in total, based on an undergraduate enrolled on a three-year degree course.

Heather Hancock said: "For more than 500 years, St John's College has had an unwavering commitment to provide financial support for students in need. We are determined to sustain this legacy. Removing serious financial barriers for prospective students is a powerful signal that Cambridge really is for everyone."

The programme will begin in October 2023, benefiting pupils currently in Year 11 or below. There will be a recruitment campaign to attract exceptionally bright students to Cambridge whose household income is below £16,200. The programme has been launched thanks to an anonymous foundation that has made a £14 million pledge to the College's Free Places fundraising campaign.

■ Read the full story on our website.

Redboys raise £7,000 in memory of Sam



St John's College Rugby Club, The Redboys, have raised more than £7,000 for the Bone Cancer Research in memory of former student and captain Sam Fitzsimmons, who died last year at the age of 23 from Ewing sarcoma.

Over 21 days in March, club members bear-crawled backwards around the College rugby pitch 777 times – or

the equivalent if they were taking part remotely – for Fitzy's Fund.

James Laudage, current Redboys captain, said: "It truly is testament to the impact that Sam had on the club."

At time of writing the club had raised £7,007, including gift aid: visit uk.virginmoneygiving.com/StJohnsRedboys to donate.

Memoirs, poems and mothers

St John's academics have penned a variety of books exploring memories – with two shortlisted for top literary prizes.

In *Memory of Memory* by Maria Stepanova (Fitzcarraldo Editions), translated by Sasha Dugdale, St John's writer-in-residence, was shortlisted for The International Booker Prize. The book weaves together fiction and memoir.

Dr Alex Wong, College Associate Lecturer and Director of Studies for English Literature, has had his second book of poetry, *Shadow and Refrain* (Carcanet), published. It offers thoughts on memory and friendship.

Professor Stefan C Reif OBE, Emeritus Professor of Medieval Hebrew Studies, has written his own memoir, *Bouncing Back – and Forward: From Immigrant Household to Cambridge Fellowship* (Valentine Mitchell).

Meanwhile, *Double Lives: A History of Working Motherhood* (Bloomsbury, 2020) by Dr Helen McCarthy, College Lecturer in Modern History and Reader in Modern and Contemporary British History, has been shortlisted for the 2021 Wolfson Prize.

Slavery collections brought together

Personal campaign materials of slavery abolitionist and St John's alumnus Thomas Clarkson form the basis of a virtual exhibition hosted by the College Library.

Slavery and Abolition: Collections Uncovered is thanks to a first-time collaboration between the Library and Wisbech and Fenland Museum. The exhibition can be viewed via joh.cam.ac.uk/online-exhibitions

New album out

The second volume of the 'inventive and brilliant' album *Magnificat* by the Choir of St John's College and Andrew Nethsingha has been released on Signum Records at smarturl.it/Magnificat2

Busy bringing order to chaos – Policing to Porterering

From delivering babies to helping to recover bodies from a plane crash, when Steve Poppitt was in the police force no two days were the same. The Head Porter at St John's talks to Jo Tynan about his second career leading a busy team at one of the largest Cambridge Colleges.



Credit: Nordin Caric.

I studied sociology at York University and when I left in 1984, there were no jobs for graduates. I applied to join the police and did plenty of stretching exercises to make sure I met the 5ft 8ins height requirement that was in place back then!

When I started as a police constable for Cambridgeshire Constabulary I was issued with a pair of handcuffs, a wooden truncheon and a radio that was more useful for picking up Norwegian fishermen than it was for communicating with colleagues. I spent

two years walking around Cambridge on foot regardless of the weather but a good police officer never gets wet – I had plenty of tea stops in the Porters' Lodges.

During one shift I got a report of a woman shouting from the upstairs window of a house. When I got there she screamed down that she was in labour and needed urgent help. I forced entry to the property and delivered the baby. When the ambulance came, I got in too so I could cradle the baby while the paramedics looked after mum on the way to hospital.

One of the most peculiar nights I had was during the storms of October 1987 when we worked for hours responding to alarms caused by slates blowing off roofs, or moving trees that had been blown down. The police have a vital public safety function that can be overlooked.

The job of the police is to bring order to chaos. I've always been a calm person and being in the police teaches you the importance of spreading the ethos that you are in control and every situation can be dealt with. No shift was

ever the same, whether it was cutting prisoners down who have attempted suicide in custody, to arresting persistent shoplifters – everyone should be treated professionally. We are just citizens who put on a uniform, we aren't an invading army.

The Fred Moss murder investigation was one of the most challenging cases I worked on when I was a police inspector. He was a traveller who went missing and was eventually presumed murdered. Hundreds of travellers came from all over the country to look for him and I needed to make sure the situation didn't escalate as they wanted to search private property for him. At one point there was a standoff at 3am and we had to set up a roadblock and tell them no. I gave evidence at the trial and although Fred's body was never found, Christopher Nudds was convicted of his murder. Fred's dad cried and thanked me for treating him and his family as human – to me he was always a grieving father who had lost his son.

I was the event commander during the fatal Firefly crash at Duxford in 2003 when the pilot crashed and he and his passenger died during an airshow at the Imperial War Museum. I worked for 24 hours straight as we had to do everything from getting more emergency services to the site and preserving the scene, to evacuating visitors and corralling the press. We even managed the arrival of an investigator who was helicoptered in SAS-style before we recovered the bodies.

When I was promoted I moved on to police headquarters and led the force's Community Safety and Crime Reduction team. I developed policy and led policing initiatives around knife crime, anti-social behaviour and the impacts of migration. It sounds dry, but it's important that police policy is evidence-based and has some rational basis to it.

I spent the latter part of my career managing community policing teams and events in Cambridge. I was heavily involved in the planning of the third stage of the Tour de France from Cambridgeshire through Essex. My last day at work was 7 July 2014, and as the peloton passed by St John's College, I was stuck in the police operations room and saw none of it!

I retired after 30 years on the force and two weeks later I started as Head

Porter at St John's. I viewed coming here as my latest posting because at the heart of everything, St John's is a community. Some people pride themselves on treating people the same but I treat everyone differently as we are all individuals with individual needs. You need to personalise your response to each situation.



Steve when he retired from the police in 2014.

I didn't know being a Head Porter was going to be as busy as it is, there's a lot more involved than just reuniting people with lost keys! I very much saw this as a second career, not a retirement job. I'm fortunate to have a great bunch of Porters – there are 28 in total including custodians and casual staff and they are very customer-focused.

I've experienced a lot of volatile situations so I don't tend to overreact. I have been told that my favourite word to use in College meetings is 'proportionate'.

When the pandemic hit, we were the only department where the majority of us have been on-site throughout. There was never any question that we would do anything else, there was a job to do and the site wasn't going to manage itself.

At the beginning the risks were completely unknown and the Porters were all on the frontline. There weren't all the government guidance documents that there are now so we used a lot of common sense and professional expertise and everyone just kept showing up to work to get the job done. It was one of the Night Porters who went to help a Fellow who was struck down with Covid and needed urgent help.

No-one in my team ever said 'that isn't in my job description' when it came to all the new tasks like supporting people in self-isolation or packing up students' rooms who had gone home never to return. It has been a testament to the Porters' commitment to St John's that they kept the College functioning. Often there was no one else to do it, so we stepped in. I'm very, very proud of how they have performed.

We are the front of house and first impressions count. Everyone has got a backstory who comes through our gates and we see people on their best days and their worst days in Cambridge, and everything in between.

A few of us caught Covid-19 and nearly everyone in the team has had to self-isolate at some point, despite the precautions we took at work and at home. My case was mild and I managed to work from home throughout. But my wife, who works for the NHS, was admitted to Addenbrooke's. Fortunately, she has recovered now.

I look back on policing and wonder where those 30 years went, and I'm already doing the same here now I've been in post for seven years. I would hate to be bored and I don't like lazy people.

Watching Gogglebox with my wife Jane makes me laugh, or Line of Duty! But it is a drama, not a documentary so you can't get too hung up on whether it would actually happen like that in real life.



The young police recruit.

Transforming Second Court for the 21st century

This summer, St John's will be undertaking the most significant building project since the Old Divinity School redevelopment – a new social area that will revolutionise Second Court. Louise Hanzlik talks to Domestic Bursar Helen Murley and Tim Waters, Head of College Buildings, about the new Community Hub.



Credit: Nordin Caric

Members of the Community Hub Working Group, including (front row, from second left) Tim Waters, Heather Hancock and Helen Murley.

For more than 400 years Second Court has been at the centre of College life, soaking up the hustle and bustle under the proud gaze of its benefactress Mary Talbot, Countess of Shrewsbury, whose statue sits in the western gatehouse leading into Third Court.

Described as 'the finest Tudor Court in England', Second Court has remained practically unchanged since 1602. That is, until now – with plans to transform the space with the addition of a sleek 21st-century Community Hub.

The project will revamp the south-west corner of the Court into a contemporary social centre, where the College community can meet, eat, drink, socialise, teach and work. The Buttery Dining Room (BDR) will be demolished, and in its place an airy dining space will be built, along with a café, bar and

outdoor seated patio area. The bar will be relocated to where the JCR now stands, and the café will move to the current bar site.

It is the biggest building project since the major restoration of the Old Divinity School in 2012.

Since planning permission and Listed Building Consent were granted in November, the College has finalised its Community Hub designs and moved forward with this ambitious project, first envisaged over five years ago. Work is due to start on site in August, with the goal of opening the Hub by the end of summer 2022, ready for the new academic year.

Helen Murley, Domestic Bursar, said: "We wanted to create a modern, welcoming environment where people can meet

informally, have a coffee, talk to people, and do a bit of work if they want to. It's for students, staff and Fellows, encouraging informal interaction between all College members. We hope that it will draw people in, and people will feel it's for them, designed by them.

"The first spade will go into the ground hopefully during the week beginning 2 August."

The College Masterplan was developed between 2015 and 2017 by Allies and Morrison and landscape architects J&L Gibbons, working with a senior College team. The Community Hub design was developed by Cambridge-based architects MCW and the programme has been steered by project managers Turner and Townsend, working with a Community Hub Working Group drawn from Fellows, staff and students and



Artist's impression of the new patio area.

chaired by Dr Frank Salmon before the Master, Heather Hancock, stepped into the role in 2020.

Builders are expected to be on site from July, and the BDR will be demolished in August when fewer people are around. The sets above the bar, BDR and JCR will all be vacated for the duration of the work and the College is taking the opportunity to refurbish all the rooms.

So what can we expect? To start, the whole space will be better integrated and more accessible, with level paths, ramps, and level flooring throughout. The buildings have been designed with sustainability and minimal environmental impact in mind. The project aims to achieve a BREEAM Excellent rating for sustainability, which is the world's leading sustainability assessment method for masterplanning projects and buildings.

The new light and airy dining space will have a feature green wall watered by rainwater from the new top-lit, freestanding, oak-framed roof. It will have better acoustics, an improved heating and lighting system and a fully glazed wall to the patio. There will also be enhanced food offerings, with a modern take on traditional dishes.

The patio will be redesigned and raised to create an extension to the dining room and bar. The kitchen-style garden will have new tables and chairs and in-built seating areas, with disabled access to the side, and the Grade I-Listed gate piers to the rear of the BDR will be moved to the west end of the patio, in line with Kitchen Lane and Kitchen Bridge.

The café will serve continental breakfasts, light lunches and takeaways, with snacks

available all day, and will be a relaxing place to meet and work. The wall between the BDR and café will be opened up to create one large airy space.

The bar will be somewhere to meet or to study during the day, to socialise before Hall and to have a relaxing drink later in the evening. It will have a fresh, modern design but remain comfortable and intimate, and incorporate enhanced facilities enabling both the traditional watching of sport on screen and live music.

The College is working with interior designers to determine the fit out. The aim is to create attractive, welcoming environments that will be used differently from the start of the day through to the evening, with each space having its own character but also blending and connecting to provide a sense of cohesion.

"This project has been a huge amount of work, particularly for Tim Waters, Head of College Buildings, and the external design team. Tim has worked tirelessly with the architects and wider team to get the original concepts drawn up and ensure the historic building consents and planning permission were achieved," said Helen.

"We've been supported by a really good Working Group of staff, students and Fellows who have provided very valuable input. The students who have worked with us have really taken the responsibility seriously, given up significant amounts of time and have consulted more widely among their peers when needed. We are also very lucky to have the support of a very generous donor who has provided a significant portion of the money for the project."

Tim said: "This is the first major capital project to be delivered from the College's Masterplan. It's been quite a complicated project to plan due its location – we have had to deal with planning issues, design a scheme that will be used and hopefully loved by students, Fellows and staff, and meet our sustainability objectives."

During construction, the bar and BDR will be housed in First Court in a semi-permanent structure. This will go up in June and be used for end-of-term events, with the BDR setting up home there in July. "We recognise that food is extremely important to the College and we will ensure that a good service is continuously maintained," said Helen. For the duration of the work, the JCR will be relocated to the Dirac Room in the Fisher Building.

Construction traffic will use the Queen's Road gate and be restricted to the start and end of each day to avoid disruption. "There will be management around the crossroads by Bin Brook, so people will still be able to walk across to the Trinity Piece Gate. The gate piers on the patio will also be temporarily removed to protect them," said Tim.

When complete, the Community Hub will be the beating heart of life at St John's.

"The project team has worked tirelessly throughout the Covid pandemic to keep the project on track to start in summer 2021," said Tim. "We hope to deliver a facility which is a real asset to the College community. I'm very excited to see the plans come off the page and become a reality."

Hub timeline

2015-2017

Discussions begin as part of College Masterplan

Sept 2018

Project plan begins to emerge

Nov 2018

Working Group is formed

Nov 2020

Planning permission granted

July 2021

Construction begins

Sept 2022

Planned opening

Find out more on the College intranet at joh.cam.ac.uk/community-hub-development-0

Blondie a highlight for rowers from St John's

It has been a remarkable year for Cambridge University Rowing Club (CUBC) – and St John's athletes have had front row seats right on the water. Undergraduates Gemma King and Jo Matthews spoke to Karen Clare about their love of rowing, training in a pandemic, and competing with an identical twin.



Credit: Nordin Caric

Jo, left, and Gemma, outside the Lady Margaret Boat Club.

Not only did the Light Blues win both the 2021 Men's and Women's Oxford and Cambridge Gemini Boat Races, but they were victorious in the Men's and Women's Reserve Races three weeks later. The women's reserve boat, Blondie, beat Oxford's Osiris by seven lengths.

"We came together as a team more than ever, just because we've all been through so much this year," said Gemma, whose identical twin sister Catherine – a student at Gonville & Caius – also helped the crew row to victory.

Gemma and Jo are still buzzing from their win which, like 2021 Blue Boat bow man and fellow St John's student Theo Weinberger (see page 4), they felt was helped rather than hindered by the pandemic – despite, perhaps *in spite*, of the fact that most of the training was done individually on dry land during the post-Christmas lockdown.

The two third-years were substitutes for the women's Blue Boat crew, so they were permitted to return to Cambridge to begin training on the water in early March, under British Rowing's strict Covid guidelines for elite sport. The rest of the Blondie crew joined them a couple of weeks later and the squad was complete for the first time in nearly three months.

Gemma, who is reading Natural Sciences, Biochemistry, sat in seat five in Blondie. She said: "Everyone was so excited to be back and make the most of every session after so long apart. We all had a great time and enjoyed being back together. I think that's what made us all gel straight away.

"Another thing that was so unique this year was that the Blue Boat Race was a couple of weeks ahead of us. Seeing what they achieved made it feel real for

us and really made us want to work hard to repeat their success."

The UK lockdown ahead of Lent Term came as a shock. Jo, who is studying Medical Science, only packed enough kit and clothing for a few days over Christmas. "Pretty much all my stuff was here. I had just enough to see me through – but I had to do a lot of laundry," she said.

"I always over-pack, so I was fine," said Gemma. "In a way we were lucky in that we missed training in all the really cold, wet weather – that was the only advantage! But I missed the water."

Both women hail from Surrey – Jo from Dorking and Gemma from Bagshot. They met for a picnic before their return to Cambridge, and trained on rowing machines and cross-trainers at home.

'We came together as a team more than ever'

"Luckily, I have my twin sister, so it helped for me to have someone to train with at home," said Gemma. "And we had lots of Zoom calls with the squad to build team spirit. The fact that you knew everyone else was doing the same training programme in lockdown definitely helped. It was a change in mindset over time as lockdown got ever longer, but in a strange way I enjoyed it – just seeing my progress was really satisfying, and doing more cross training and cycling helped me to enjoy the process."

Gemma and Jo were both selected for the Blondie squad in 2020. It was a rapid progression for Jo, who only



Credit: Nordin Catic

Jo and Gemma in action.

began rowing in her first year, at the College's Lady Margaret Boat Club (LMBC).

"I had a great time and really enjoyed the sport, so I stayed on as a senior," said Jo, who sat in seat six in Blondie. "We had a fantastic year, I loved the Bumps and wanted to carry on. In my second year I trialled for CUBC and both Gemma and I got honorary Blondie colours. Because of the pandemic, the Races were cancelled, so it was brilliant for it to go ahead this year, we just wanted to race, we wanted to win."

Gemma began rowing at school and was in the CUBC lightweight women's Boat Race crew in her first year. She hopes to do a Master's at St John's in Michaelmas Term, and to compete in the women's Blue Boat would be a dream come true.

She said: "Obviously being in the Blue Boat is the goal, but I had a great time this year and I just want to do the best I can. We've got some really strong people coming up in University rowing, so we'll see what happens."

Jo, who has another three years at St John's as a medic, agreed. "I would love to be in the Blue Boat next year. I'm fairly new to the sport so I'm not as experienced as a lot of people like Gemma, and next year I imagine there'll be a lot of competition with the seats. But I'll definitely be trying my best."

Before coming to St John's, Jo's main sport was cycling. "Cycling is a very individual sport: all the training is on your own, and racing is on your own. With rowing, everything you do is about the people you're with, and camaraderie is such an important part of that, along with the training. I just really enjoy it."

Said Gemma: "Being in the Blondie race was amazing, just being with the people that you've trained so hard with all year, and celebrating. It gives me a focus as well. I find it weird if I don't have training, I find myself wondering what I'm doing with the rest of my time. It helps me with my work and organising myself. I can't imagine my life without rowing."

'We just wanted to race, we wanted to win'

Jo was nervous when the squad first got back on the water. "I thought, have I forgotten everything? What will it be like? Will it go really badly? But from the first session back, it felt like we had never stopped, everyone was so ready and fit, and the boat went really well. The first-week blisters weren't so fun, but we really enjoyed it."

Rowing with her twin sister gives Gemma both a companion and a challenger. "We got into rowing together. We always thought we'd diverge at 18 and go to different universities, but we both came to Cambridge to do Biochemistry. So that was a shock, but amazing."

"Being at different Colleges, we still have that independence and separation, but it's nice to be able to merge together with rowing. I've done a lot of races in a pair with my sister and we've had some pretty amazing experiences together, and I think our pair does go pretty well. We've always found being in a boat together just works. I guess we're very, very competitive with each other but that also drives us forwards."

This summer the twins will be trialling for the GB U23 lightweight rowing team, and hope to race in the British Universities Championships and at Henley.

Jo has her own family ties to Cambridge - her dad is an alumnus of St John's.

In the past year not even a pandemic has stopped this new generation of St John's rowers making their own waves.



Jo, middle row, right, with fellow LMBC rowers and Gemma, right, with twin sister Catherine.



Ella's summer lab work leads to world-class research

Natural Sciences undergraduate Ella de Csilléry was a first year at St John's when she became involved in research with the potential to transform the treatment of cancer and other diseases – and even reveal the origins of life on Earth. She tells Karen Clare what it was like.



Credit: Noorain Caricé

Ella was studying Physics, Chemistry, Biology of cells and Maths in 2019 when she decided to try to get some summer experience in a lab before her second year, and sent speculative emails to several St John's Fellows.

Professor Tuomas Knowles was the first to reply and offer a placement. His lab is a multi-disciplinary group doing pioneering research into disorders such as Alzheimer's to develop new techniques for early diagnosis and treatment, so it was a thrilling prospect.

"I was introduced to two researchers from the Knowles Lab, who later supervised me, and was sent some reading material over that year," said Ella, from London. "Then, in the summer, I turned up at the lab with not too much idea of how it would pan out, I was just really eager to get involved in as many things as possible."

In fact, the now 20-year-old was to be involved in a research project that spanned the globe. During a phase separation experiment – in which two phases (in this case liquids rather than solids or gases) are created from a single homogeneous mixture – she witnessed a surprising chemical reaction.

"One of my supervisors was explaining to me how phase separation works, and gave me a quick demonstration. He put two liquids together in a combination

where you might expect them not to phase-separate – but when we looked, the liquid was cloudy. He said, 'hang on, that's not what we expect to happen.' Under the microscope we could see the liquid had phase-separated, and that discovery kicked off further investigation, because we discovered that this happened not only in a low salt regime, as predicted, but also in a high salt regime," said Ella. "It was very exciting."

The research showed for the first time that liquid-like protein compartments, known as condensates, in cells can re-enter a phase-separation regime in response to different salt concentrations. Cells contain proteins and other biomolecules that must be carefully organised for them to function properly. Condensates remain segregated through the physics of phase separation, like oil and water. In a changed salt environment, the cell can trigger the formation or dissolution of these protein-rich liquids. Sometimes, these components can go wrong, which can be implicated in diseases such as cancer and Alzheimer's. The findings may help scientists develop future patient therapies – and could even tell us how life began and evolved in Earth's salty oceans.

Ella was listed among the contributing authors of a research paper published in *Nature Communications* in February, beside her supervisors Dr Georg Krainer and Timothy Welsh, two of the lead co-authors. Cambridge's Collepardo Lab, which uses computational physics to research chromatin – the substance within a chromosome consisting of DNA and protein – was also involved in the research, along with scientists from the Technical University in Dresden, the Max Planck Institute of Molecular Cell Biology and Genetics, and the University of Toronto.

Ella spent eight weeks in the lab, helping to pull together supporting evidence

and working on other projects. It is quite unusual for an undergraduate to be involved in such ground-breaking research, not to mention a first year. "I don't think it happens very often but my experience shows that if you want it to, then it can – it's just about putting yourself out there and asking for the opportunity," said Ella. "I appreciate I was really lucky but I wouldn't have got that chance if I hadn't asked. First years may not realise they have those opportunities available to them at Cambridge.

"I really enjoyed the amount of collaboration. It was great to have the opportunity to work in Professor Knowles's lab and to have my work published. Everyone was so enthusiastic and supportive, it was an amazing experience."

Professor Knowles said: "It was a great pleasure to host Ella in our lab. We are always keen to host exceptionally talented summer students for short research projects, and Ella's work was truly impressive. She managed to obtain remarkable new results in her project focusing on understanding the molecular mechanisms of biomolecular condensate formation, and these formed an integral part of a *Nature Communications* paper that Ella contributed to, based on this work."

Last year Ella applied for summer lab work at universities in the US and received two offers, although sadly the pandemic meant she was unable to go. She plans to study a fourth year at St John's to get her Natural Sciences part III, and is now considering graduate medicine. A singer in St John's Voices, Ella also plays the violin and College lacrosse when she isn't playing her part in potentially life-saving research.

■ **Learn more about the research:**
ch.cam.ac.uk/news

10-minute interview

Former windsurfing centre manager Dr Victoria Harvey, Tutor for Undergraduate Admissions, talks about her eventful road to St John's that included leaving university due to ill-health and returning as a single parent.



Credit: Nordin Caric.

Victoria with her puppy Roxy the golden retriever, and Folly, the black labrador belonging to Heather Hancock, the Master.

Did you go straight into academia after university?

No, I got chronic fatigue syndrome after I caught glandular fever during my GCSEs and flogged myself during my A-levels. I went off to Cardiff University but left after 18 months because I was struggling to cope. I moved home to Cornwall and went travelling for six years, partly with a boyfriend.

Tell us about your time working in Egypt.

I lived there for two years and managed a windsurfing centre. I returned to the UK via Brazil with a different boyfriend and we were planning to set up our own windsurfing resort in Cape Verde but we never managed to because I was in a serious car crash.

What happened?

A man was chasing his brother's car and he smashed into me on a winding road. I was hospitalised with a ruptured spleen, collapsed lung, concussion, whiplash, broken pelvis, sternum and ribs. When I was discharged I couldn't walk and I had a long period of rehabilitation.

When did you become a mother?

I got pregnant when I was 25 during the recovery period. My boyfriend and I split up when I was pregnant and it has just been me and Belle ever since.

You returned to university to study French when Belle was six months old, was that difficult?

I went into the interview at Exeter when I was heavily pregnant and still on crutches, but I got in! I lived with my mum and dad near Truro. At first, I crammed everything into three days at uni and four days at home, and drove back and forth. Eventually I moved to Exeter with Belle. I came top of my year and we went off to Worcester College in Oxford together so I could do a Master's in Renaissance French.

Tell us about your adventures abroad with Belle during your PhD at Girton College.

She has always been very portable and it has been us against the world since she was born. So we packed up and headed off to Paris when she was five and she learned French, went to the local maternelle and came around the Louvre looking at pictures with me.

Belle is 15 now and you have both got a new member of the family, Roxy, the golden retriever. Have you always wanted a dog?

I've never really looked very far ahead and I've seized opportunities as they came along. I did outreach work at Robinson College and Trinity Hall before I was elected as Director of Undergraduate Admissions at Lucy Cavendish College. I oversaw the preliminary transition period of going from an over-21 women's College to an over-18 all-gender College and was ready for a change. Now I am Admissions Tutor at St John's, it is the first time I've felt able to put down roots. I recently bought my first house and we

have finally been able to get a dog and a rescue cat. Roxy and Miss Molly are complete rascals but they make us very happy.

How does it feel to have so much influence over whether someone gets into Cambridge?

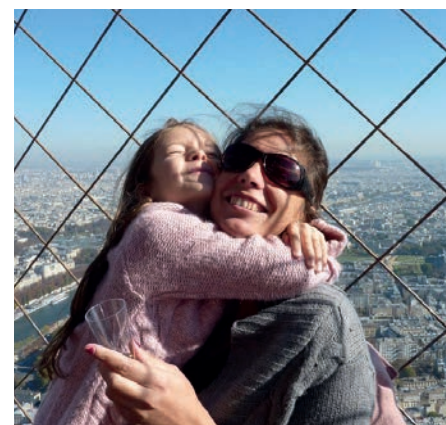
The transformative power of Cambridge over other universities shouldn't be overestimated. Cambridge is amazing and you get a very different style of education but it isn't for everyone. It's not just about if you are clever enough, it is about whether you are going to commit to the sheer amount of work required every single week. If someone doesn't get into Cambridge, their life hasn't ended. Even getting an interview is a huge achievement.

You are very sporty and you are president of the Cambridge University Real Tennis Club. What is real tennis?

The game was one of King Henry VIII's favourite sports, he played it a lot and ordered lots of courts to be built. The rules were written down in 1599 and it is played with racquets made of wood in an asymmetrical court that has weird features like sloping roofs. It is complicated but a lot of fun! The club is open to everyone and there's often a chance to do a taster session, so do come and give it a try if you'd like to have a go at something new.

You've had a varied career so far, what would you like to do in the future?

I don't like to do the same thing day in, day out. One of the things that attracted me to St John's was the challenge of a larger College. If we make the right Admissions decisions, we will select the students who have the most potential to thrive at Cambridge. This will help to create a diverse, academic community full of different educational and cultural experiences.



Victoria and Belle in Paris.



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