CMA President’s Annual Report

It’s been a busy year for CMA. Our annual meeting was a great success, heightened this year by a welcome influx of medical students from our sister college, Brasenose. We decided to invite BNC from now on, and we look forward to another invasion next June. William James (right), Professor of Virology and Tutorial Fellow at Brasenose, started the 2014 meeting in grand style, and fascinated us with an account of just how wicked or helpful macrophages can be.

The risk of sudden cardiac death has, in recent years, been extended to young people, with the very public death of sportsmen from time to time. Andrew Grace’s story of unravelling its cause, and developing a very novel approach to its management, kept our audience wide awake and entranced before tea.

Then Sir Tom Blundell, a doyen of Cambridge biochemists, showed us how you can be a first-rank scientist as well as a successful entrepreneur, and how to meld them in the search for new cancer drugs. The cancer theme was further developed by Carlos Caldas, who updated us on the truly remarkable advances in the genetics of tumours, and how this new knowledge is rapidly suggesting novel and exciting new treatments.

This year we have another exhilarating menu for you (June 27 2015). Sir Marcus Setchell, until recently the Royal obstetrician, will tell us all about royal births (not perhaps all…). Then Luke Hughes-Davies, consultant oncologist from the Cambridge Cancer Centre, will describe some breathtaking new approaches to targeted cancer therapy.

Sir Mark Welland, Professor of nanotechnology and head of the Nanoscience Centre in Cambridge will update us on some very recent developments that have huge potential for medicine; and finally, a bit of art: Frank Wells, from Papworth, will tell us about his long-standing interest in anatomical drawings from the Renaissance and how they inform our knowledge of medical research in that period. An entertaining afternoon indeed; followed, of course, by the usual convivial and luscious dinner.

Some other developments. Mike Adams, about to complete his registrar training in ophthalmology, will take over from Arpan Mehta as editor to this Newsletter: Arpan has been a huge success, and we are deeply grateful.
We have decided to strengthen further the links between CMA and the current medical students, by making all of them members (free!), and asking their President (currently Luke Bibby) to join our committee. We hope they will choose to continue as members after they graduate.

Finally: it is time for a new President of CMA. The committee has been fortunate enough to persuade John Latimer to succeed me from June. John will be known to many of you. He is a consultant in gynaecological oncology at Addenbrooke’s, and is a Fellow of the College and Director of Studies to our clinical students. He is also locally famous for his annual appearance in the medical pantomime... I wish him tremendous success.

Kevin O'Shaughnessy has been a rock-like support throughout my Presidency, and working with the super-efficient Julia Mantle has been a delight. Deep-felt thanks to them and to Bleddyn Jones, who has volunteered to add to his busy life by acting as our much appreciated Treasurer; also to my committee, particularly James Fitzsimons, my predecessor, who remains a force for good in CMA.

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**History of the Organisation**

The Caius Medical Association (CMA) was founded in 1997, which coincidentally was the 400th anniversary of Harvey's graduation from the college in 1597.

Since then, the CMA has generated considerable enthusiasm and interest. Its intention is to allow Caius medical graduates to keep in touch with each other, and with the college; and to maintain a sense of a Caius medical community after graduation.

The CMA also provides a mechanism whereby older members can provide help and advice to Caius students and younger members, for example about career choices. We have had many offers of support and help of one kind and another, which were much appreciated by the young Caian medics who have taken them up.

A key part of the CMA is the annual meeting in June, which combines a social occasion with a scientific meeting. We also provide financial assistance to Caius students who wish to stay in Cambridge over the Long Vacation to complete lab-based projects or Part II courses. Their work is presented as posters at the June meeting.
The CMA provides funding for Caius undergraduates to undertake research projects over the long vacation. This scheme is hugely valuable, often allowing students to gain their first experiences of real research. Each year, a good proportion of the students – between a quarter and a half – who apply for CMA funding obtain more generous studentships from charities or research councils. This highlights the quality of the project proposals, and of course helps us to preserve the CMA’s funds. But, for the students who are unable to obtain funding elsewhere, a CMA Summer Studentship is a safety net, enabling our students to make full and productive use of their long vacations.

In 2014, seven students successfully applied for CMA funding. Of these, two – Ahmed Maiter and Ella Mi – won full funding from the Medical Research Council and were thus awarded Honorary CMA Studentships. Two further students received contributions from the college’s Tutors’ Development Fund. Finally, one student, Ali Al-Hadithi, travelled to Tsinghua University under a generous scheme run by Prof Babak Javid, a Caian now based in Tsinghua. The CMA contributes to the students’ subsistence in China, while Tsinghua University pays for their travel and laboratory costs.

The CMA Summer Studentships are now in their 12th year, and continue to allow students to approach prospective supervisors with the confidence that they will be able to (just) afford accommodation during their project. It is worth noting that the great majority of contributions to the CMA are used to fund summer studentships, so this is an excellent point to thank all those who have contributed to the CMA through subscriptions and donations!

The students who received funding for projects in the UK were:

James Sun worked with Dr Daqing Ma in Imperial College on a project investigating the effects of the sedative dexmedetomidine on bilirubin-induced injury to astrocytes. He presented his work at the Winter Meeting of the Anaesthetics Research Society on 1st October 2014 and I’m delighted to report that he won the Royal College of Anaesthetists President’s Prize for Undergraduate Research for the best student presentation.

Jay Purkayastha undertook a project in the Comparative Cognition Lab at the Department of Psychology, under the supervision of Edward Legg. His project was an investigation of how adult humans are biased by their own desires when attributing desires to others.
Karthik Chandrasekharan worked with Prof Chris Huang and me to investigate the mechanism of action of a potential anti-arrhythmic drug in a model of the arrhythmic disorder catecholaminergic polymorphic ventricular tachycardia. His excellent experimental work, involving loose patch-clamping of atria, formed an important contribution to a recent publication, “Flecainide exerts paradoxical effects on sodium currents and atrial arrhythmia in murine RyR2-P2328S hearts” in Acta Physiologica.

Susanna Xu travelled to Peking University to work with Prof Wei Kong on a project investigating signalling mechanisms of smooth muscle calcification.

Christine Wong travelled to Malaysia where she worked in the Geriatrics Department of the University of Malaya, supervised by Profs Tan Maw Pin and Phyo K. Myint. Her aim was to identify the possible determinants of inpatient mortality of the very oldest elderly patients (>90 years old). She plans to return to Malaysia in 2015 to complete the project and publish her work.

Finally, one student received CMA funding towards a CMA-Tsinghua Summer Studentship:

Ali Al-Hadithi worked with Prof Jing Li in Tsinghua University on a project studying gene expression in strains of Streptococcus pneumonia. This involved learning a wide range of biochemical techniques, but also provided an excellent opportunity to make friends and contacts in a leading university.

All the CMA Students will be invited to present their work on posters at the CMA meeting this year. The CMA is very grateful to all the project supervisors for giving our students such a varied and valuable exposure to research, and in particular to Babak Javid for organising the Tsinghua programme.

Dr James Fraser

Please remember your subscriptions!

www.gonvilleandcaius.org/cma

As the article above shows, your CMA subs make a real difference to young Caius medics, providing them with opportunities for research and medical experience that would otherwise be beyond their reach.
Caius MedSoc president’s report

I am pleased to say it has been another hugely successful year for Caius medics in all domains of student life. Everyone has certainly lived up to the mantra of medical students: “work hard, play hard”.

In keeping with our tradition of pursuing academic excellence Caius, as ever, dominated Tripos and there were outstanding scores across the board culminating in a host of scholarships and exhibitions across all years. Once again this confirms that the peer support, supervisions and academic resources of Caius make us unrivalled, as the best place to study medicine.

The community spirit among the Caius medics is typified by active participation in a wide range of extracurricular activities beyond MVST; here is a taste of our successes:

In sport, we have had students competing in Varsity competitions in a diverse range of disciplines. There were victories for: Maria Fala who dazzled in Dancesport; while on the Basketball court Chris Lovejoy was awarded Most Valuable Player, after his top scoring performance. Emma Walker kept up the Caius tradition of rowing in the winning Lightweight team, Alex Schlindwein in the first team for Fencing, also winning the individual men’s foil in BUCS; Tim Swinn in Hockey and Gabby Lewis in cheerleading. In addition, Dhruva Biswas who was CU TaeKwonDo President this year competed in his third consecutive varsity. We also had many others representing the university including: Lucy Crossman once again in the high jump, Susanna Xu in Eton Fives, and Hassal Lee in Handball.

Following the trend of Caian medics helping to defeat our rivals at the other place, Anthony Martinelli captained the triumphant Gonville and Caius College University Challenge team to victory, beating Magdalen, Oxford in the final. (more overleaf - Ed.)

From talking to Mr Latimer at matriculation dinner, every Caius medic knows it is their destiny to partake in the annual Addenbrooke’s Pantomime and this year was no exception with lead roles Sam Bostock and Luxi Sun as well as a host of others in the organisation. Next year, our own Rosa Sun will be leading the production. Musical talents are rife in Caius, with Rob Humphries in the CU Opera Society performance of Tchaikovsky’s “Eugene Onegin” and Vijay Shyam-Sundar in leading orchestral recitals. There was once again a host of medics involved in the organisation of, and showcasing their talents in, the Hindu cultural show, “Mastana”. Chris Lovejoy is starring in an ADC May Week show “Super”.

Work hard, play harder - the Caius to success?
This has been a remarkable year for our student medical society thanks to the dedication of our exceptional committee. We have managed to purchase a new skeleton, held a well-attended joint talk series with Trinity MedSoc and have attracted some high profile speakers (one Lord, three Knights, and a Nobel Laureate amongst them). In early February, it was a delight to see so many fellows and supervisors join us for our annual dinner. This year saw our highest ever turnout with 125 students, including many who had come back from Oxford and the London clinical schools, joining us for what everyone agreed was a thoroughly enjoyable evening for all and the definite highlight of the year.

I would like to thank the Caius Medical Association on behalf of the students for their continued support, particularly with the summer research studentships, which have once again enabled many Caius medics to undertake research. Many of these have led to conference presentations, prizes and publications; all who benefited had worthwhile experiences of medical research. This year we are trying to formalise ties between the student medical society and the alumni of the medical association. We hope that this extended network of Caius medics will be able to provide advice and support extending beyond our time in college. I am confident that this will further ensure that Caius continues to produce generations of tomorrow’s doctors who are accomplished and succeed in all aspects of life.

James Sun, Caius MedSoc President

www.srcf.ucam.org/cma

The CMA website is an invaluable resource for details of the upcoming Annual Meeting, application & direct debit forms, for ordering your distinguished CMA tie, and of course for poring over those bygone issues of the CMA newsletter.
Following Caius’ outstanding performance in this year’s University Challenge, team captain and Caius medic Tony Martinelli has kindly made time to report on his experience.

In my final year at Caius, after five failed attempts to appear on University Challenge, I received a call from the show’s producers, who, to my total shock, told me that we had finally been successful with our application. Having been chosen as the captain, I felt it was my responsibility to prepare an intense training schedule for my team of Ted Loveday (Law), Michael Taylor (History) and Jeremy Warner (Natural Sciences). Of prime importance in our preparation was watching previous episodes of the show together. We would sit on the sofas in the College underbar and practise our quiz technique by hitting the armrests in order to “buzz in” and then scoring ourselves appropriately - including negative points for incorrect interruptions and only being permitted to take bonus points if we had beaten both televised teams to the correct answer.

Additionally, we tried to maintain a broad base of knowledge by completing the weekend factual crosswords in The Daily Telegraph and The Independent together over brunch in Hall every Saturday, but we also allocated topics amongst ourselves for specific focus. I, for example, read up on astronomy, classical music pre-1800 and fine art post-1900, but didn’t touch history. I did not specifically prepare for any medical questions, as I felt that I would probably know them if they came up regardless of revision. This turned out to be a foolish assumption – I did not know that Wharton’s jelly was found within the umbilical cord, I had forgotten the number of telomeres in a human diploid cell and, much to Prof Carpenter’s chagrin, I miscalculated how many decibels represented a one thousand-fold change in sound intensity.

It was only when we went to record the show in Manchester that we realised most teams had not been doing this level of training. In fact, most had not done anything apart from the occasional team pub quiz. As it turned out, this approach paid dividends: we were able to dispatch a number of teams with relative ease. That said, there were certainly moments when our supposedly deep knowledge was a combination of luck and guesswork. A bonus set on Kyrgyzstan: I have no idea how Ted knew that a specific nomadic dwelling called a “Yurt” featured on that country’s flag, I was not aware that I knew that there was a
range of mountains there called Tian Shan and I don’t know how, as a team, we came to
the conclusion that their language was probably similar to Turkish, rather than any other
of eastern Europe: 15 points from nowhere.

There is disdain in some circles for the bastardisation of knowledge supposedly
encouraged by quiz shows such as University
Challenge – rewarding recall, rather than understanding. Certainly I would agree that
depth of knowledge is not a prerequisite for doing well on the programme, but I would
also argue that stimulating an interest in matters beyond your own subject field is
unequivocally important. For example, it was no bad thing that on several occasions
whilst preparing for the show I was forced to confront how little I knew about the history
and culture of China, a country which will no doubt be the dominant power over the next
century.

Finally, I would like to thank six years’ worth of supervisors for their immeasurable
collection towards the bank of knowledge I was able to call upon during the show – it is
probably no coincidence that every prospective Caius team in the last seven years has
featured at least one medical student in the side. It was a privilege representing the
College on such a stage, and I hope that we will appear on the programme again in the
very near future to take another title.

Tony Martinelli

The CMA Committee

President - Joe Herbert/John Latimer
Hon. Secretary - Kevin O’Shaughnessy
Hon. Treasurer - Bleddyn Jones
Newsletter editor - Mike Adams

Directors of Studies
David Riches
Dino Giussani
James Fraser
John Latimer (Clinical DoS)

Medical Fellows
Morris Brown
Roger Carpenter
James Fitzsimons
Ferdia Gallagher
Kay Tee Khaw
Richard Le Page
Helen Mott
Kevin O’Shaughnessy
KJ Patel
Eugene Paykel
Julian Sale

Members representatives
Undergraduates - Luke Bibby
Registrars - Arpan Mehta
Consultants - Stephen Brearley
GPs - Cosmas Nnochiri
1997
• Hot topics in infectious diseases Richard Le Page (1964)
• Vitamins, genes and heart disease Morris Brown (1990)
• DHEA: the elixir of life? Joe Herbert (1976)
• A medical foray in the Valley of a Thousand Hills James Fraser, Stuart Kendrick, Narman Puvanachandra, Ben Zalin (1994)
• Reminiscences of Caius Prof Austin Gresham (1943)

1998
• Highlights of high altitude medicine Charles Clark (1963)
• Microbial debugging devices David Ellar (1968)
• Is there an anti-ageing diet? Kay-Tee Khaw (1991)
• The flowers of the stories from the stratum of the physicians: some explorations in early Islamic medicine Nadeem Ali (1994)
• The Politics of Health The Rt Hon. Kenneth Clarke MP (1959)

1999
• How antibodies learn Julian Sale (1986)
• Andean insights into metal hypoxia Dino Giussani (1997)
• Exploits of a travelling surgeon Richard Heald (1996)
• Aspirin: old questions, new answers Ray Nouraei (1996)
• Calcium - a life and death signal Prof. Sir Michael Berridge (1961)

2000
• Depression: brain and mind Eugene Paykel (1985)
• Genetic instability and cancer Ketan Patel (1996)
• Neural decisions and free will Roger Carpenter (1973)
• Evaluation of a new colour scale for measuring haemoglobin Duncan Massey (1994)
• Towards a treatment (or even a cure) for cystic fibrosis Prof Alan Cuthbert (1963)

2001
• Neuronal plasticity Fiona Arnold (1988)
• Vascular action of hormones Peter Collins (1973)
• Looking at letters John Robson (1965)
• The Rainmaker Mike Adams (1996)
• Medical ethics and political correctness: are they compatible? Prof. Jean-Pierre Allain

2002
• Horror autotoxicus John Todd (1980)
• Medicine in mountain rescue John Ellerton (1978)
• The eicosanoids and PAF in glomerulonephritis - pathophysiology…and what happened to therapy? Nigel Wardle (1953)
• Nuclear transport and chromosome breakage in humans Chelvin Sng (1999)
• Prevention of osteoporotic fractures from cradle to grave Prof. Cyrus Cooper (1974)
2003
- Can’t pee; won’t pee. Naima Smeulders (1989)
- Stigma and the myths of mental illness. Oscar Hill (1950)
- Mechanisms of oxygen sensing in the body. Prof. Peter Ratcliffe (1972)

2004
- Sergeant Pepper’s lonely heart. Ferdia Gallagher (1993)
- Repairing the damaged spinal cord. James Fawcett
- The Good, the Bad and the Ugly. Anita Chandra (1993)
- Towards a crystal-clear view of leukaemia. Alan Warren (1991)
- Protein folding, misfolding and disease. Prof. Sir Alan Fersht (1962)

2005
- Advances in asthma management. Philip Ind (1968)
- Clinical research and experimental medicine. Prof. Sir Keith Peters

2006
- Human obesity: science versus stigma. Prof. Stephen O’Rahilly

2007
- Cholera and sodium deficiency, thirst and sodium appetite. James Fitzsimons (1946)
- The selection and care of dancers. Richard Pearson (1961)
- The two sub-systems of colour vision. John Mollon (1996)
- Taking on the immune system. Prof. Herman Waldmann

2008
- The perils and pleasures of editing a learned journal. Peter Tyrer (1959)
- Are we becoming more allergic to food? Pamela Ewan
- Prioritising scarce resources: lessons from liver transplant organ allocation. Alexander Gimson
- Your floating brain. Prof. John Pickard
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<tr>
<th>Year</th>
<th>Lecture Title</th>
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<tr>
<td>2009</td>
<td>Imprinted genes: what they tell us about normal and abnormal development.</td>
<td>Anne Ferguson-Smith</td>
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<td>The impact of modern imaging.</td>
<td>Adrian Dixon</td>
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<td>Autism: new ideas on a common problem.</td>
<td>Bonny Auyeung</td>
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<td>Pre-eclampsia: is it of any relevance to physicians?</td>
<td>Lucy Chappell</td>
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<td>Prostacyclin and nitric oxide, discovery and biological significance in the cardiovascular system.</td>
<td>Prof. Sir Salvador Moncada</td>
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<td>Twenty-first century back pain: is it all in the mind?</td>
<td>Nick Birch (1979)</td>
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<td>Distract and Weld: current maxillofacial surgery</td>
<td>Richard Loukota</td>
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<td>Recent advances in immunotherapy for cancer.</td>
<td>Hardev Pandha</td>
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<td>Stem cell biology: overcoming the embryo.</td>
<td>Prof. Austin Smith</td>
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<td>2011</td>
<td>Sudden cardiac death.</td>
<td>James Fraser (1994)</td>
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<td>Hepatitis C - from virus to vaccine.</td>
<td>Paul Klenerman</td>
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<td>Early intervention in schizoprenia.</td>
<td>Peter Jones</td>
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<td>Gynae cancer through the keyhole.</td>
<td>John Latimer</td>
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<td>Is the Government right to abolish the HFEA?</td>
<td>Martin Johnson</td>
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<td>K&lt;sub&gt;ATP&lt;/sub&gt; channels, neonatal diabetes and neurological disorders: from molecule to disease.</td>
<td>Prof. Feances Ashcroft</td>
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<td>Sex change: medical, legal and social challenges.</td>
<td>Richard Green</td>
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<td>Membranes and transporters.</td>
<td>Richard Boyd</td>
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<td>Extraordinary opportunities: from genome to health.</td>
<td>Prof. Sir Mark Walport</td>
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<td>The hip detectives: introduction of new implants into clinical practice.</td>
<td>Alister Hart</td>
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<td>The implications of reproductive ageing.</td>
<td>Susan Bewley</td>
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<td>Recent advances in brain tumour radiotherapy: cyberknives, IMRT, protons and the rest.</td>
<td>Naomi Ferscht (1988)</td>
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<td>Oxygen sensing from worms to man.</td>
<td>Prof. Patrick Maxwell</td>
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<td>2014</td>
<td>Elucidating the role of macrophages and their cousins in the pathogenesis of AIDS and Parkinson’s disease.</td>
<td>William James</td>
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<td>Targeted protection from sudden cardiac death.</td>
<td>Andrew Grace</td>
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<td>How can we discover new drugs that bind novel targets in the fight against cancer?</td>
<td>Sir Tom Blundell</td>
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<td>Breast cancer - what genomics has changed.</td>
<td>Carlos Caldas</td>
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Programme of the 19th Annual Meeting
Saturday 27th June 2015

The Bateman Auditorium, Gonville and Caius College, Cambridge

12.30-13.30 Optional sandwich lunch in the Bateman Room, Caius Court

13.45 Registration and welcome from John Latimer, President of the CMA

14.00 Royal Births 1700 – 2000: a reflection of changing practices in Obstetric Care
Sir Marcus Setchell KCVO, FRCS, FRCSEd, FRCOG

The hottest hashtag of 2015: PD1 directed cancer therapy
Dr Luke Hughes-Davies (Cambridge Cancer Centre, Addenbrooke’s)

15.30 Tea

1600-17.30 Nanotechnology in Medicine
Professor Sir Mark Welland FRS FREng
Nanoscience Centre, University of Cambridge

The Heart in the Art of Leonardo. Blue skies anatomical/physiological research in Renaissance Italy
Mr Francis Wells, Consultant Cardiac Surgeon, Papworth Hospital

17.45 Business meeting

18.45 Pre-prandial drinks in the Master’s Lodge (in the Master’s Garden if fine) followed by

19.30 Dinner in the Fellows’ Dining Room or in Hall (Dress: smart casual)
Booking deadline: Monday 15th June 2015

Please e-mail your completed form to: Julia Mantle at cma@cai.cam.ac.uk

Name: ……………………………………………………………………………………
E-Mail Address: (Please write clearly) …………………………………………
Contact Telephone Number: ………………………………………………………

| I am a member of the CMA and wish to attend the Annual Meeting: I am a current Medical Student | Free |
| I am a member of the CMA and wish to attend the Annual Meeting: I am a Doctor in Training/Retired | £25.00 |
| I am a member of the CMA and wish to attend the Annual Meeting: I am a GP/Consultant/in current employment | £45.00 |
| Sandwich lunch before meeting (must be pre-booked) | £8.00 |
| Dinner in Hall following the Meeting. Guests warmly welcomed – please specify name/s: …………………………………… |
| Dinner for current Medical Students/Doctors in Training | £48.00 each |
| £35.00 each |
| Accommodation in Stephen Hawking Building (includes breakfast): Ensuite Single Ensuite Double/Twin (please specify) | £60.00 each |
| £75.00 for two |
| Special Offer – CMA Silk Tie: £15 (£10 for Students) | £15/£10 |

TOTAL £

NB: Dinner will be ‘Smart Casual’ this year. Any special dietary requirements?

Parking at Harvey Court: Please give car registration if required: ………………………

We would prefer electronic payment by BACS: alternatively, a cheque payable to ‘Caius Medical Association’ with your completed form to:

Caius Medical Association
Bank Sort Code: 20 17 19
Bank Account Number: 00942553
Reference: [your surname]
Julia Mantle, Caius Medical Association, 23 Stocks Lane, Orwell, Cambridge SG8 5QS

Please e-mail me an Attendance Certificate after the Meeting for CPD Accreditation……

If you have any queries, please contact Julia Mantle at cma@cai.cam.ac.uk or on 01223 208622