

EDUCATION

University of Oxford TBC	POSTGRADUATE DIPLOMA IN HEALTH RESEARCH Will undertake part-time, likely in 2026-2027						
University of Oxford 2018 – 2022	MEDICINE (ACCELERATED GRADUATE-ENTRY) <table> <tr> <td>BM BCh</td> <td>Clinical course</td> <td>Pass with Distinction, <i>ranked in top 10%</i></td> </tr> <tr> <td></td> <td>Pre-clinical course</td> <td>Pass with Distinction, <i>ranked second in year</i></td> </tr> </table>	BM BCh	Clinical course	Pass with Distinction, <i>ranked in top 10%</i>		Pre-clinical course	Pass with Distinction, <i>ranked second in year</i>
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University of Cambridge 2012 – 2016	MANUFACTURING ENGINEERING <table> <tr> <td>MEng</td> <td>Pass with Distinction, <i>ranked top of year</i></td> </tr> <tr> <td>BA</td> <td>First Class, <i>ranked second in year</i></td> </tr> </table>	MEng	Pass with Distinction, <i>ranked top of year</i>	BA	First Class, <i>ranked second in year</i>		
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BA	First Class, <i>ranked second in year</i>						
Winchester College 2006 – 2011	A-levels/Pre-Us Physics (<i>top in country</i>), Maths (<i>100%</i>), Further Maths, Chemistry, Biology A* GCSEs / IGCSEs Nine subjects, including Maths and English A*						

CLINICAL & ACADEMIC ROLES

HEE Thames Valley & University of Oxford Aug 2024 – Aug 2028	ACADEMIC CLINICAL FELLOW & GENERAL PRACTICE SPECIALITY REGISTRAR Highly competitive NIHR-funded programme with a >1 in 60 competition ratio. Ranked in top 1% of national GP selection. Incorporates over a year of funded research time and research training.
Oxford University Hospitals & University of Oxford Jul 2022 – Aug 2024	ACADEMIC FOUNDATION DOCTOR Competitive programme combining research with clinical placements in Gastroenterology, General/Geriatric Medicine, Intensive Care, ENT, Emergency Medicine & General Practice. Worked on REMEDIY project , service evaluation with NHS 111 Wales using NASSS-CAT framework.

AWARDS

University of Oxford	2021	Speciality Year Merits: Overall Performance; Community Based Medicine; Orthopaedics, Trauma, Rheumatology and Emergency Medicine (<i>all top 10%</i>)
	2019	Martin Wronker Runner-up Prize in Medicine
	2019	Pre-clinical Merits: Overall Performance, OSCE, Critical Appraisal (<i>all top 10%</i>)
University of Cambridge	2016	Best Overall MEng Project (<i>top prize, 300 students</i>)
	2016	METIIB Project Prize (<i>top prize, 40 students</i>)
	2015	MET IIA Major Project Prize (<i>top prize, 40 students</i>)
Pembroke College, Cambridge	2016	Ronald Wynn Prize for Engineering
	2013 – 2015	College & Foundation Scholarships & Computing Prize
Royal Academy of Engineering	2014	Engineering Leadership Award (<i>34 awarded, 300+ applicants</i>)
IET	2012	Belling Engineering Prize (<i>top scholarship, over 1100 applicants</i>)
CAA / EASA	2011	JAR-FCL Private Pilot Licence (Aeroplanes)

PUBLICATIONS

British Journal of General Practice 2024	<i>After the teleconsultation: getting medicines to patients when pharmacy services are not available</i> Payne R, Lodge A, Mackridge A, O'Keefe D, Swann N, Clarke A, Schmidt J, Allen T, Sloan C, Bond C. 74(746):422-425. doi:10.3399/bjgp24X739401. PMID:39209722
Lancet Digital Health 2022	Constructing custom-made radiotranscriptomic signatures of vascular inflammation from routine CT angiograms: a prospective outcomes validation study in COVID-19 Kotanidis C, Xie C, Alexander D, ..., Lodge A, ..., Antoniadis C, et al. (22 nd author of 40) 4(10):e705-e716. doi: 10.1016/S2589-7500(22)00132-7. PMID: 36038496

ARCHIE LODGE

Clinical Radiology
2022

Parenchymal involvement on CT pulmonary angiography in SARS-CoV-2 Alpha variant infection and correlation of COVID-19 CT severity score with clinical disease severity and short-term prognosis in a UK cohort

Tsakok MT, Watson RA, Lumley SF, Khan F, Qamhawi Z, **Lodge A**, Xie C, ... , Gleeson F et al. 77(2):148-155. doi:10.1016/j.crad.2021.11.002. PMID:34895912

Clinical Radiology
2022

Comparison of COVID-19 disease severity and PE rates between Kent B1. 1.7 lineage versus other lineages on CTPA

Tsakok MT, Watson RA, Lumley SF, Qamhawi Z, Khan F, **Lodge A**, , ... , Gleeson F et al. 77:e30. doi: 10.1016/j.crad.2022.08.120. PMID:PMC9490743

Clinical Radiology
2022

COVID-19 CT severity score on CT pulmonary angiography (CTPA): Correlation with clinical disease severity and short-term prognosis

Tsakok MT, Watson RA, Lumley SF, Qamhawi Z, Khan F, **Lodge A**, Gill A, Xie C, Gleeson F, Benamore R. 77:e29–30. doi: 10.1016/j.crad.2022.08.118. PMID: PMC9490734

Lancet
2020

ChAdOx1 nCoV-19 vaccine for SARS-CoV-2 (Correspondence)

Lodge A.

396(10261):1486. doi:10.1016/S0140-6736(20)32270-4. PMID:33160564

ORAL PRESENTATIONS

National Academic GP Training Conference
2022

Using Process Improvement Methodology from Lean Manufacturing to Improve the Efficiency of Influenza Vaccination in General Practice: A Pilot Quality Improvement Study

Lodge A. Lecture presented: March 31, 2022; Cambridge, United Kingdom

PATENTS

CMR Surgical
2018

Driving arrangement for articulating a surgical instrument

Chaplin B, Henrywood R, **Lodge A.**

GB2554915 (A), CN110121308 (A), EP3525710 (A1), JP2019530530 (A), US11129686 (B2), US2020038127 (A1), WO2018069679 (A1)

Cambridge Consultants
2014

Injector Device

Perkins G, Mogensen L, Tang L, Van Wyk E, **Lodge A**, Harborne W, McLean J.

GB2554915 (A) CN110121308 (A), EP3525710 (A1), JP2019530530 (A), US11129686 (B2), US2020038127 (A1), WO2018069679 (A1)

SIGNIFICANT AUDITS

Oxford University Hospitals
2020

Retrospective analysis of patient records to determine risk factors, prognostic factors and transmission dynamics of SARS-CoV-2 in the hospital setting

Mo Y, Eyre D, Lumley S, ... , **Oxford COVID infection review team**, Cooper B, et al.

Partial results available at: doi.org/10.1101/2021.04.28.21256245

Cambridge University Hospitals
2016

Implementing “Lean” and 5S Process Improvement Techniques in the Emergency Department at a Large Major Trauma Centre. *Eight improvement domains were identified, with trials conducted in three domains that led to sustained efficiency and safety improvements (a closed-loop audit).*

Lodge A. 6-week full-time project with report and presentations to CUH and Institute for Manufacturing leadership

FORMAL TEACHING EXPERIENCE

University of Oxford
Sep 2019 – Jul 2022

TUTOR IN PRE-CLINICAL AND CLINICAL MEDICINE, WORCESTER COLLEGE (PAID)

Taught regular sessions for 3-4 students at a time in pre-clinical and clinical topics.

PEER TUTOR (VOLUNTARY)

Arranged and ran ten tutorials for 4-10 pre-clinical students at a time after noticing that their teaching had been significantly impacted by the Covid pandemic.

38 of 39 students rated the delivery of the sessions and the usefulness in meeting their learning objectives as “very good” or “excellent”. Students rated their confidence in the subject before and after the sessions, and all students reported an increase in confidence. References available.

Cambridge University Heartstart
Oct 2013 – Dep 2017

INSTRUCTOR & INSTRUCTOR TRAINING OFFICER (VOLUNTARY)

Responsible for training quality of 200+ first aid instructors. Worked with paramedics and the BHF to restructure training and certification processes to reduce waste and improve quality of instruction. Trained hundreds of adults, schoolchildren, and medical students over this time. Provided Basic Life Support Training to medical students at the University of Cambridge

ENGINEERING ROLES

CMR Surgical

Jul 2016 – Aug 2018

MECHANICAL ENGINEER

CMR Surgical is developing a next-generation robotic surgical system used in the NHS & worldwide. I joined a start-up with 40 employees; it is now a \$3bn company with over 400.

- Worked with surgeons and scientists to develop protocols, collect data and write-up an animal and two cadaver trials, to establish non-inferiority of robotic surgical system. Reports and analysis were used in regulatory submissions and to justify further trials.
- Led development of robotic scissor instruments. Designed complex parts, often at the limit of technological capability, for multiple manufacturing processes including metal and plastic injection moulding, micromachining, EDM, forming, brazing and additive manufacturing.
- Analysed design and production parts with computer modelling and tolerance analysis.
- Supported manufacturing partners to develop manufacturing processes for very challenging to manufacture parts, including over-moulding of very delicate parts, high-precision EDM of MIM parts, design and manufacture of high-load miniature bearings and manufacture of custom cable.
- Designed test rigs and wrote test procedures for testing of robotic surgical instruments. Analysed and reported data to demonstrate safety, performance, and regulatory compliance.
- Conducted FMEA and FMECA analyses and implemented outputs to improve product safety.
- Led initial work to evaluate biocompatibility of surgical instruments and worked with senior colleagues and external consultancies to plan testing and regulatory submissions.
- Coordinated prototype build activity, including discussions with suppliers and managers to ensure components and resources were available to meet very tight development timelines.

Cambridge Consultants

USA

2015 (7 weeks)

UK

2013 (12 weeks)

Sep 2011 – Jul 2012

TECHNOLOGY SCHOLAR, MEDICAL ANALYSIS & MODELLING GROUP

- Headed a feasibility review for a new wireless medical product, interacting with suppliers, senior engineers, and the client (a 'big-3' pharmaceutical company) within the first few weeks of joining. Submitted a report, presented results, and responded to questions from the client.
- Developed two auto-injectors in a small team of mixed expertise, transforming a novel idea from a concept generation session into testable, commercially viable prototypes.
- Improved the actuation mechanism of a major inhaler development through experimentation and data analysis, bringing actuation success from <10% to >99.9%.
- Gave three recruitment presentations to 100+ people and mentored another staff member.

VOLUNTARY ROLES

South Central Ambulance Service

Jan 2020 – Jun 2021

TEAM LEADER, MEDICAL STUDENT FIRST RESPONDER

Recruited, trained, and mentored other medical students to become ambulance first responders. Attended high-priority 999 calls to provide life support and rapid medical assessment.

East of England Ambulance Service

Oct 2016 – Aug 2018

TEAM LEADER, COMMUNITY FIRST RESPONDER

Attended over 100 high-priority 999 calls, including several cardiac arrests. As a team leader, organised training, mentored new members, analysed response data, and liaised with ambulance service to establish how best to deploy services to ensure efficient use of responder time.

Ecohouse Initiative

Oct 2012 – Dec 2015

DIRECTOR OF PERMANENT HOUSING

- Headed a team of 30, working with academics and a charity in South America to improve the design of the temporary and permanent low-cost housing they build in 19 countries. Secured commercial and government funding for a full-scale permanent housing project in Ecuador.
- Travelled to Ecuador in summer 2014 to work with our local partners and the government on housing and education projects. Developed innovative system to improve targeting of government education schemes and demonstrated it to the development ministry.