



PhD Application Form: CDT in Engineering Solutions for Antimicrobial Resistance

Please do not close or navigate away from this form or your entries will be lost. A PDF copy of the entire application form is available to download and view [here](#). We advise applicants to review ALL questions in advance.

We recommend that applicants set aside time to complete this form in one sitting. We strongly recommend that applicant prepare their main longer answer questions in a separate document and paste the answers into this form to avoid any risk of edits being lost if the internet connection is interrupted. Please note that there is a strict word limit on personal statement questions.

Applicants will have an opportunity to review, by using the back button at the bottom left hand side of the form, and edit the application form before submitting it. **Please make sure you use the back button at the bottom of the form NOT the browser back button (at the top of the screen).**

Please complete ALL sections of the application form.

Please note that our assessment of the application will consider both the academic record

1. Name *

2. Email address *

Please enter an email

3. Contact Telephone number (inc. country code) *

4. How did you hear about the positions for the CDT in Engineering Solutions for AMR? *

- CDT Virtual Open Day
- CDT in Engineering Solutions for AMR website
- FindAPhD website
- UCL website
- LinkedIn
- Word of mouth
- Other

Funding Eligibility Criteria

There are residence requirements for postgraduate research funding from Engineering and Physical Sciences Research Council (EPSRC) and Biotechnology and Biological Sciences Research Council (BBSRC).

To be considered a UK student, applicants must meet one of the following criteria: (a) be a UK national (meeting residency requirements); (b) have settled status; (c) have pre-settled status (meeting residency requirements); or (d) have indefinite leave to remain or enter.

If an applicant does not meet any of these criteria, they are classified as international students. These criteria are set out by UKRI. For more information, please see <https://www.ukri.org/what-we-do/developing-people-and-skills/esrc/funding-for-postgraduate-training-and-development/eligibility-for-studentship-funding/>.

International applicants can be eligible for tuition fees at the UK rate and a stipend at the UKRI rate but this cannot be guaranteed. There is typically strong competition within universities for this funding, and therefore we can only offer a very limited number of international places.

5. Please indicate whether you are applying as a UK (this includes EU applicants with settled or pre-settled status) or international student. *

- UK student (including EU applicants with settled or pre-settled status)
- International student

6. What is your nationality (what is on your passport/ID card)? *

7. What is your normal country of residence? *

8. Have you been ordinarily resident in the UK for the last 3 years? *

- Yes
- No

9. Please indicate whether you are applying as full-time or part-time student? *

- Full-time
- Part-time

Education

10. What is your highest educational qualification? *

- BA
- BEng
- BSc
- BSci
- BSAC
- FdA/FdSc
- HNC
- HND
- LLB
- LLM
- MA
- MBA
- MD
- Med
- MEng
- MFA
- MPharm
- MPhil
- MRes
- MSc
- MSci
- MTech
- PGCert
- PGDip
- PhD
- Other

11. Highest qualification title *

12. Highest qualification degree classification/expected classification *

- 1st class
- 2:1
- 2:2
- 3rd
- Distinction
- Merit
- Pass
- Expected 1st
- Expected 2:1
- Expected 2:2
- Expected 3rd
- Expected Distinction
- Expected Merit
- Expected Pass
- Not awarded in the UK

13. Highest qualification overall grade if not awarded in the UK (please specify maximum as well - e.g. 3.5/4)

14. Highest qualification awarding institution *

15. Year highest qualification awarded *

16. Do you have another relevant qualification? *

Yes

No

Education (contd)

17. What is your other educational qualification? *

- BA
- BEng
- BSc
- BSci
- BSAC
- FdA/FdSc
- HNC
- HND
- LLB
- LLM
- MA
- MBA
- MD
- Med
- MEng
- MFA
- MPharm
- MPhil
- MRes
- MSc
- MSci
- MTech
- PGCert
- PGDip
- PhD
- Other

18. Highest qualification title *

19. Highest qualification degree classification/expected classification *

- 1st class
- 2:1
- 2:2
- 3rd
- Distinction
- Merit
- Pass
- Expected 1st
- Expected 2:1
- Expected 2:2
- Expected 3rd
- Expected Distinction
- Expected Merit
- Expected Pass
- Not awarded in the UK

20. Highest qualification overall grade if not awarded in the UK (please specify maximum as well - e.g. 3.5/4)

21. Highest qualification awarding Institution *

22. Year highest qualification awarded *

23. Do you have another relevant qualification? *

Yes

No

Education (contd 2)

24. What is your other educational qualification? *

- BA
- BEng
- BSc
- BSci
- BSAC
- FdA/FdSc
- HNC
- HND
- LLB
- LLM
- MA
- MBA
- MD
- Med
- MEng
- MFA
- MPharm
- MPhil
- MRes
- MSc
- MSci
- MTech
- PGCert
- PGDip
- PhD
- Other

25. Highest qualification Title *

26. Highest qualification degree classification/expected classification *

- 1st class
- 2:1
- 2:2
- 3rd
- Distinction
- Merit
- Pass
- Expected 1st
- Expected 2:1
- Expected 2:2
- Expected 3rd
- Expected Distinction
- Expected Merit
- Expected Pass
- Not awarded in the UK

27. Highest qualification overall grade if not awarded in the UK (please specify maximum as well - e.g. 3.5/4)

28. Highest qualification awarding Institution *

29. Year highest qualification awarded *

Personal Statement

Use this section to tell us more about your research experience and your motivation for applying to the CDT in Engineering Solutions for AMR.

30. Please provide a summary of your research experience (including dates, names of your supervisors and the relevant institutions). This could include research projects you have been involved in, dissertations/papers/articles you have published, submitted or are preparing, or conferences you have attended or presented at. (max. 1200 characters, including spaces) *

Please enter at most 1200 characters

31. Why are you interested in pursuing a PhD? What are your reasons for pursuing doctoral study? (max. 1200 characters, including spaces) *

Please enter at most 1200 characters

32. Why are you applying to the UCL CDT in Engineering Solutions for AMR in particular? What is it about the CDT programme that has attracted you? (max. 1200 characters, including spaces). *

Please enter at most 1200 characters

33. Please explain why you believe you are a strong candidate for the CDT and why this programme represents a good fit for you. (max. 1200 characters, including spaces) *

Please enter at most 1200 characters

34. Work Experience. In this section please share any relevant work experience (max. 1200 characters, including spaces). This section is optional.

Please enter at most 1200 characters

35. Is there anything else you would like to add? This could be about any personal interests, career breaks or challenges that affected your professional development (max. 1200 characters, including spaces)? This section is optional.

Please enter at most 1200 characters

Project Selection

Please select up to three research projects offered for the 2025 student cohort. You can select up to three projects.

Remember that project selection needs to reflect what you have specified in your answers to earlier questions about your research experience and your motivation for applying to the CDT in Engineering Solutions in AMR.

You can view PhD research projects available to our 2025 student cohort by clicking on the links for our three Research Themes below:

- Preventing infections - <https://www.ucl.ac.uk/london-nano/cdt-amr/research-themes/preventing-infections>
- Diagnostics & surveillance - <https://www.ucl.ac.uk/london-nano/cdt-amr/research-themes/diagnostics-and-surveillance>
- Antimicrobials & vaccines - <https://www.ucl.ac.uk/london-nano/cdt-amr/research-themes/novel-therapies>

36. Please select your preferred PhD research project/s. *

Please select at most 3 options.

- Theme 1: Strategies to improve the antimicrobial properties of protein-based medical materials
- Theme 1: Passive dynamic topographies for long-term infection prevention
- Theme 1: Developing a standard testing methodology to detect droplet and aerosol generation from healthcare sanitaryware to support risk management for better infection prevention and control
- Theme 1: Reduction of bacterial attachment to medical devices via mathematical modelling
- Theme 1: Novel ultrasound assisted antimicrobial strategies for dental biofilm infections
- Theme 2: Capitalizing on beta-lactamase enzymatic amplification for ultrasensitive antimicrobial susceptibility testing in rapid tests
- Theme 2: Multiplexed lateral flow assay devices for early diagnosis of urinary tract infections in the community
- Theme 2: BEDside Levels of Antibiotic Monitoring (BEDLAM)
- Theme 2: Developing optical methods to detect and isolate antimicrobial persisters
- Theme 2: Hospital wastewater metagenomic sequencing for single test antimicrobial resistance surveillance and monitoring
- Theme 3: Reverse epitope discovery for Tuberculosis vaccine design using deep learning
- Theme 3: Engineering novel bacteriophage-based antimicrobials
- Theme 3: Bioengineered smart antibacterials using synthetic cells
- Theme 3: Synergistic efficacy of a monoclonal antibody therapy with colistin against AMR *Acinetobacter baumannii*
- Theme 3: High throughput, cell-free assays for selective antimicrobial hit identification

References

Give details of the two people who can provide a reference for your application. At least one of your referees should have supervised you undertaking a research project. Referees should not be family members or friends.

37. Referee 1 name *

38. Referee 1 job title *

39. Referee 1 institution *

40. Referee 1 email address *

Please enter an email

41. Referee 2 name *

42. Referee 2 job title *

43. Referee 2 institution *

44. Referee 2 email address *

Please enter an email

Equal opportunities monitoring

The following section is made up of questions to allow us to carry out equal opportunities monitoring. Information from this section will not be visible to the recruitment panel. It will be used by Centre Managers for administrative purposes, to ensure equal opportunity, and for anonymised monitoring and reporting purposes required by our funder (UKRI/EPSRC/BBSRC).

University College London has a commitment to ensuring that students are appointed and promoted on the basis of merit, regardless of ethnic origin, sex, gender or disability, sexual orientation, race, colour, nationality (within current legislation), marital status, caring or parental responsibilities, age, or beliefs on matters such as religion and politics.

This information will be held securely and kept under GDPR guidelines. Access to the data will be restricted to administrative staff who will anonymise the data. Only anonymised data will be used for reporting purposes.

Our questions are informed by the Diversity and Inclusion Survey (DAISY) Question Guidance as drafted by EDIS (Equality, Diversity, Inclusion in Science and Health): <https://edisgroup.org/wp-content/uploads/2022/05/DAISY-guidance-current-updated-May-2022-V2.pdf>.

The CDT processes your personal data in order to provide its services to you. The UCL Prospective Students (Enquirers and Applicants) Privacy Notices, explain how we process your personal data and the rights you have with respect to your personal information: <https://www.ucl.ac.uk/legal-services/privacy/ucl-prospective-students-enquirers-and-applicants-privacy-notice>.

By providing this data, you agree that we will use the data as outlined above. You can withdraw your consent to this at any time.

45. Age *

- 24 or under
- 25-29
- 30-34
- 35-39
- 40-44
- 45-49
- 50-54
- 55-59
- 60 and over
- Prefer not to say

46. Do you have a disability? *

- Yes (opens a new question with an optional text box to provide information that the candidate is willing to share)
- No
- Prefer not to say

47. If you would like to provide further information about your disability, please enter it here.

48. What is your ethnic group? *

- Asian/Asian British - Bangladeshi
- Asian/Asian British - Chinese
- Asian/Asian British - Pakistani
- Asian/Asian British - Any other Asian background
- Black/Black British - African
- Black/Black British - Caribbean
- Black/Black British - Any other Black/African/Caribbean
- Mixed/Multiple Heritage - Asian and White
- Mixed/Multiple Heritage - Black African and White
- Mixed/Multiple Heritage - Black Caribbean and White
- Mixed/Multiple Heritage - Chinese and White
- Mixed/Multiple Heritage - Any other Mixed/Multiple ethnic group or background
- White - British/English/Northern Irish/Scottish/Welsh
- White - Irish
- White - Traveller
- White - Any other White background
- Other ethnic group - Arab
- Other ethnic group - Hispanic
- Other ethnic group - Latina/Latino/Latinx
- Any other ethnic group or background
- Prefer not to say

49. What is your gender? *

- Woman/girl
- Man/boy
- Transwoman/transgirl
- Transman/transboy
- Non-binary/genderqueer/agender/gender fluid
- Don't know
- Prefer not to say

50. What is your sexual orientation? *

- Asexual
- Bi/bisexual
- Gay man
- Gay woman/lesbian
- Heterosexual/Straight
- Pansexual
- Queer
- I identify in another way
- Prefer not to say

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