

Programme Title: MSc Cancer & Therapeutics



Programme Specification

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| Awarding Body/Institution | Queen Mary, University of London |
| Teaching Institution | Queen Mary, University of London |
| Name of Final Award and Programme Title | MSc/Pg Dip Cancer & Therapeutics |
| Name of Interim Award(s) | Pg Dip / Pg Cert |
| Duration of Study / Period of Registration | FT 1year, PT 2 years |
| QM Programme Code / UCAS Code(s) | MSc - A4VB (FT), A4VF (PT), PGDip - A4V3 (FT), A4V7 (PT) |
| QAA Benchmark Group | Medicine |
| FHEQ Level of Award | Level 7 |
| Programme Accredited by | |
| Date Programme Specification Approved | |
| Responsible School / Institute | Barts Cancer Institute |

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| Schools which will also be involved in teaching part of the programme |
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| Institution(s) other than Queen Mary that will provide some teaching for the programme |
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Programme Outline

General:

This programme is provided by the Barts Cancer Institute (BCI) within Barts and the London School of Medicine.

The Barts Cancer Institute is a Cancer Research UK Centre of Excellence, which forms part of a national framework to deliver world-leading research, improved patient care and greater public engagement.

We have a constellation of leading cancer scientists and clinicians involved in basic, translational and clinical research. This expertise allows us to offer you this exciting opportunity to study on the MSc/ Pg Diploma in Cancer and Therapeutics.

Cancer is the cause of over 25% of all deaths in the UK. Despite major advances in treatment over the last 25 years, over half of the 270,000 new cancer cases registered in the UK each year will go on to die of their disease. New treatment options are clearly required, a process that will require staff at all levels of the development process to be appropriately trained and skilled in cancer therapeutics and new treatment development.

This course is designed to give you a detailed and thorough understanding of cancer therapeutics, based on knowledge of

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cancer biology, pathology and research methodology. This will provide you with a good grounding in the use and evaluation of cancer therapies which will enhance your career prospects in many areas of early phase clinical trials and clinical drug development in the cancer setting.

This programme is offered in the following modes of study:

- Onsite - 1 year full time
- Onsite - 2 year part time

Delivered onsite through lectures, seminars and practicals

This programme is offered the following awards

- MSc award: 180 credits consisting of 120 credits of taught units and a 60 credit Dissertation
- Postgraduate Diploma award: 120 credits of taught units

All teaching is delivered by research active scientists and clinicians.

Aims of the Programme

The specific aims of the programme are to provide participants with a clear understanding of the scientific basis underlying the principles and practice of cancer therapeutics and the development, evaluation and implementation of new treatments.

This will be underpinned by a thorough knowledge of cancer biology and pathology, research methodologies, drug development and regulatory issues.

This knowledge will provide you with a good grounding in the use and evaluation of cancer therapies which will enhance career prospects in many areas of early phase clinical trials and clinical drug development in the cancer setting.

Students enrolling for a Postgraduate Diploma or Certificate typically do so as part of their Continuing Professional Development, so select modules to satisfy their own professional learning requirements.

What Will You Be Expected to Achieve?

On completion of the course students will:

Academic Content:

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| A 1 | have a good grounding in the molecular and cellular biology relevant to cancer |
| A 2 | have a thorough knowledge of the principles underlying the diagnosis and treatment of cancer |
| A 3 | understand the steps involved in developing and implementing new cancer treatments |
| A 4 | understand the regulatory framework underlying clinical research |
| A 5 | understand the principles of key laboratory methodologies applied to clinical trials |

Disciplinary Skills - able to:

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| B 1 | demonstrate skills in gathering, recording, analysing and presenting information |
| B 2 | contribute to the research activity and knowledge base in improving cancer care |
| B 3 | apply knowledge gained from the programme in their own professional role |

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| Attributes: | |
| C 1 | experienced in oral and poster presentation |
| C 2 | experience of working as part of a research-active group |
| C 3 | significant laboratory or clinical research experience |

How Will You Learn?

Module and project teaching will comprise the following;

- Whole-group seminars/lectures on specific topics. Tutors and students will be encouraged to develop a tutorial atmosphere in which dialogue and discussion can take place.
- Whole-group practical classes in small groups to address a specific practical method or topic. These will be recorded in the student's practical files.
- Whole-group demonstrations. These will take place in Institute laboratories or the class-room to address specific technologies (i.e. expression array technology) or methods (i.e. array data analysis).
- Student presentations on specific topics.
- Individual tuition will take place for all students during the 4-unit project, or for students who require additional input in a particular topic area.
- Key generic skills will be acquired from each of the above.
- Teaching material will be available on the College internet site via VLE.
- The majority of the teaching rooms, the practical lab and the computer room are on the Charterhouse Square campus. Some teaching may take place at St Bartholomew's Hospital, which is 5 minutes walk from Charterhouse Square.
- The provision of key skills in the core module Research Skills and Sciences will enable students to maximise their ability to understand and learn from other modules. Students will maintain a file of practical work carried out in the core module which will be useful during the project module.

As self-directed learning is the major component of each module students will be encouraged to identify their own learning needs as modules progress. All students will have access to named personal mentors (lecturer grade or above) on entry to the course. These mentors will provide advice on issues arising from the course itself, and on issues such as post course employment and further training opportunities.

Students will have full access to the College/Medical School library and student computing facilities. The course is delivered using a virtual learning environment provided by the college. This enables lecture notes and handout material to be available electronically, provides space for discussion and question boards and allows assessed work to be uploaded remotely. For Classroom teaching will also involve a real time assessment of the group understanding of the topic being covered using the Turning Point student response system. This involves questions embedded into presentations to which the students respond, using an individual unit that provides an anonymous response with a single click. This ensures that feedback is received from all students in the group, and provides students with a guide to their own understanding of a particular topic.

How Will You Be Assessed?

Assessment of individual modules vary and are designed to test the module learning outcomes. Assessments include:

*presentations (oral and poster)

*viva

*written essays

*practicals
*examination

How is the Programme Structured?

Please specify the full time and part time programme diets (if appropriate).

The full Masters programme requires students to take 180 credits

This includes:

- 105 credits of compulsory taught modules
- 15 credits of elective taught modules
- 60 credit core dissertation

Full time students take 60-75 credits in semester 1 (Sept - Dec, delivered as 2 or 3 days teaching each week Tuesday/Wednesday/Thursday). Examinations are taken in early January examination period.

Students take a further 45-60 credits in semester 2 (Jan - April, delivered over 3 days each week, Tuesday, Wednesday and Thursdays). Examinations are taken in the May/June examination period.

Part-time students take 52.5 - 67.5 credits in year 1, and between 52.5 - 67.5 credits in year 2. The dissertation module is taken in the second year of study.

The distance learning diet mirrors that of the campus based programme (DL module codes are bracketed)

Pg Diploma students do not undertake the final dissertation module and follow the same taught diet as their full time counterparts

Academic Year of Study FT - Year 1

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--------------------------------------|-------------|---------|-------|-------------------------|------------------------|------------|
| Research Methods | CANM937 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Cancer Biology | CANM902 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Cancer Pharmacology | CANM903 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Molecular Diagnostics & Therapeutics | CANM921 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Drug Development | CANM906 | 7.5 | 7 | Compulsory | 1 | Semester 2 |
| Paediatric & Adolescent Oncology | CANM911 | 7.5 | 7 | Elective | 1 | Semester 2 |
| Cancer Prevention and Screening | CANM912 | 7.5 | 7 | Compulsory | 1 | Semester 2 |

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| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--|-------------|---------|-------|-------------------------|------------------------|------------|
| Genomic Approaches to Cancer | CANM940 | 7.5 | 7 | Elective | 1 | Semester 2 |
| Molecular Targeted Therapies and Immunotherapy for Blood Cancers | CANM935 | 15 | 7 | Compulsory | 1 | Semester 2 |
| Dissertation | CANM936 | 60 | 7 | Core | 1 | Semester 3 |
| Pathology of Cancer and Imaging | CANM951 | 15 | 7 | Elective | 1 | Semester 1 |
| Clinical Cancer Treatment | CANM950 | 15 | 7 | Compulsory | 1 | Semester 2 |

Academic Year of Study PT - Year 1

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--|-------------|---------|-------|-------------------------|------------------------|------------|
| Cancer Biology | CANM902 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Cancer Pharmacology | CANM903 | 15 | 7 | Compulsory | 1 | Semester 1 |
| Pathology of Cancer and Imaging | CANM951 | 15 | 7 | Elective | 1 | Semester 1 |
| Drug Development | CANM906 | 7.5 | 7 | Compulsory | 1 | Semester 2 |
| Molecular Targeted Therapies and Immunotherapy for Blood Cancers | CANM935 | 15 | 7 | Compulsory | 1 | Semester 2 |
| Paediatric & Adolescent Oncology | CANM911 | 7.5 | 7 | Elective | 1 | Semester 2 |
| Genomic Approaches to Cancer | CANM940 | 7.5 | 7 | Elective | 1 | Semester 2 |

Academic Year of Study PT - Year 2

| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--------------|-------------|---------|-------|-------------------------|------------------------|----------|
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| Module Title | Module Code | Credits | Level | Module Selection Status | Academic Year of Study | Semester |
|--------------------------------------|-------------|---------|-------|-------------------------|------------------------|------------|
| Molecular Diagnostics & Therapeutics | CANM921 | 15 | 7 | Compulsory | 2 | Semester 1 |
| Research Methods | CANM937 | 15 | 7 | Compulsory | 2 | Semester 1 |
| Pathology of Cancer and Imaging | CANM951 | 15 | 7 | Elective | 2 | Semester 1 |
| Clinical Cancer Treatment | CANM950 | 15 | 7 | Compulsory | 2 | Semester 2 |
| Cancer Prevention and Screening | CANM912 | 7.5 | 7 | Compulsory | 2 | Semester 2 |
| Paediatric & Adolescent Oncology | CANM911 | 7.5 | 7 | Elective | 2 | Semester 2 |
| Genomic Approaches to Cancer | CANM940 | 7.5 | 7 | Elective | 2 | Semester 2 |
| Dissertation | CANM936 | 60 | 7 | Core | 2 | Semester 3 |

What Are the Entry Requirements?

The course is aimed at graduate scientists, other professionals allied to medicine working in healthcare, the pharmaceutical industry or contract research organisations.

For admission to the programme students will need either;

- a good degree (2i or above, or 2ii with extenuating circumstances confirmed by an academic referee) or degree equivalent from a recognised academic institution
- or
- an appropriate professional qualification with relevant work experience.

MSc FT route only; MBBS students that have successfully completed at least 3 years of MBBS studies (including the equivalent of one year of patient-based teaching)

Band 4: IELTS (Academic) minimum score 6.5 overall with 6.0 in each of Writing, Listening, Reading and Speaking

How Do We Listen and Act on Your Feedback?

The Student Voice Committee provides a formal means of communication and discussion between schools/institutes and its students. The committee consists of student representatives from each year in the school/institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Staff-Student Liaison Committees meet regularly throughout the year.

Each school/institute operates a Learning and Teaching Committee, or equivalent, which advises the School/Institute Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work in a number of ways, such as through student membership, or consideration of student surveys.

All schools/institutes operate an Annual Programme Review of their taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery; the main document of reference for this process is the Taught Programmes Action Plan (TPAP) which is the summary of the school/institute's work throughout the year to monitor academic standards and to improve the student experience. Students' views are considered in this process through analysis of the NSS and module evaluations.

Academic Support

Students are encouraged to interact with academic staff during classroom teaching to foster a tutorial-like learning environment. Members of the teaching staff, (typically the module lead and 1 other), mark all assessed work and provide written feedback on the in-course assessments. Students are able to view that written feedback at any time. Indeed, in semester 1 feedback is given on research Skills practical write-ups within 1-2 weeks of submission to enable students to incorporate that feedback into their subsequent write-ups. Feedback on progress and performance is given to students individually at the end of each semester by the Course Director, with the proviso that all marks are provisional until confirmed by the relevant examination boards.

If a student is having difficulty with a particular module, topic or practical, additional teaching support can be provided. Students also have access to named personal mentors who can advise on areas in which the student may be having difficulty, or on issues such as post-course employment.

Programme-specific Rules and Facts

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Specific Support for Disabled Students

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia
- Applying for funding through the Disabled Students' Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one study skills tuition
- Ensuring access to course materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Access to specialist mentoring support for students with mental health issues and Autistic Spectrum Disorders.

Links With Employers, Placement Opportunities and Transferable Skills

On completion you will have the theoretical and practical background to go into further laboratory or clinical research, or into various aspects of cancer drug development and clinical evaluation in the context of early phase trials.

Our graduate destinations include: PhD studentships (internal and external to the Institute), medical school, clinical trials research positions, laboratory research technicians, research assistants.

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On successful completion of the course, students will have the opportunity to apply to work at our Centre for Experiment Cancer Medicate, to gain further experience of a clinical trials unit.

Programme Specification Approval

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| Person completing Programme Specification | Ellis Murrell |
| Person responsible for management of programme | Pia Cronin |
| Date Programme Specification produced/amended by School Learning and Teaching Committee | |
| Date Programme Specification approved by Taught Programmes Board | |