Cellular and Molecular Medicine at Bristol

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School Education Director

bristol.ac.uk/study/undergraduate/2021/cellular-molecular/
Why study Cellular and Molecular Medicine at Bristol?

• At Bristol, you can ‘turn science into medicine’ by exploring and undertaking your own research.
• You’ll automatically enrol onto our Biomedical Research Employability and Enterprise Skills (BREES) programme - a mandatory cross faculty second year unit for all students on Biomedical Sciences programmes.
• You'll have access to excellent facilities, including:
  ▪ Ebiolabs
  ▪ Flow cytometry
  ▪ Proteomics
  ▪ Bioimaging
• Our lecturers are experts in their field, meaning that your teaching is directly informed by current, world-renowned research
• We achieved a 94% Overall Satisfaction for our CMM programmes (National Student Survey, 2019).
• You’ll join a scientific community committed to developing new approaches to prevention and treatment of human disease.

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Our degrees

You can choose from a range of options and study the degree that suits you. These include:

- Cellular and Molecular Medicine
- Medical Microbiology
- Cancer Biology and Immunology
- Virology and Immunology

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Course structure

*please note that course units vary between degrees and may change
Year 1 units

- Weeks 1-12
  - Fundamentals of Molecular Microbiology
  - Normal and Tumour Cells
  - Biochemistry: Cellular Composition

- Weeks 13-24
  - Medical Microbiology and Infectious Diseases
  - Disease and Defence
  - Biochemistry: Cellular Processes

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Year 2 units

- **Weeks 1-12**
  - Infection and Immunity
  - Recombinant DNA Technology
  - Biomedical Research, Employability and Enterprise Skills

- **Weeks 13-24**
  - Cellular and Molecular Pathology
  - Gene Expression and Rearrangement
  - Biomedical Research, Employability and Enterprise Skills

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Year 2 units (cont.)

During your second year you will also choose to study two of the following optional units:

- Languages
- Molecular Cell Biology
- Pharmacology

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Final year units

During your final year you will conduct a research project whilst also choosing four out of five units. Your choice of units will depend on the programme you choose.

Unit options

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Developmental Genetics and Embryonal Cancer</th>
<th>Cancer Mechanisms and Therapeutics</th>
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<tbody>
<tr>
<td>Immunology</td>
<td>Advanced Immunology</td>
<td>Immunopathology and Applied Immunology</td>
</tr>
<tr>
<td>Stem Cells</td>
<td>Regenerative Medicine</td>
<td>Haemopoietic Stem Cell Therapies</td>
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<tr>
<td>Infection</td>
<td>Medical Microbiology</td>
<td>Frontiers in Infectious Diseases</td>
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<tr>
<td>Pathology</td>
<td>Clinical Pathology in Action</td>
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Final year units (cont.)

The final year unit requirements for each programme are as follows:

- **BSc/MSci Cancer Biology and Immunology** - you **must** pick at least three Cancer and Immunology units
- **BSc/MSci Medical Microbiology** - you **must** pick at least three Infection units
- **BSc/Msci Virology and Immunology** - you **must** pick Immunopathology and Applied Immunology, Medical Virology and Frontiers in Infectious Diseases
- **BSc/Msci Cellular and Molecular Medicine** – you **must** pick Cancer Mechanisms and Therapeutics, Medical Microbiology, Frontiers and Infectious Diseases, and Clinical Pathology in Action

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Research project

Your final-year research project is a fantastic opportunity for you to undertake ‘real research’ in an area of your choice.

- Your research project can be Laboratory or Literature based.
- You will have the chance to work at the cutting edge of scientific discovery.
- You will have the opportunity to work in a nationally or internationally recognised research laboratory.
- Projects are offered in the Biomedical Sciences Building and in labs in the surrounding hospitals.

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Study in industry

- During your course you also have the option to spend a year gaining real-world experience by working in a company or research institute.

- Previous placements have included GlaxoSmithKline, GSK; Oxford Biomedica; European Molecular Biology Laboratory (Grenoble, France and Heidelberg, Germany); Freie Universitat, Berlin; AstraZeneca; Vertex Pharmaceuticals; and Illumina Cambridge

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MSci programmes

- MSci programmes are similar to regular CMM courses, but include a streamlined research-intensive year focused on your specific research project.
- Our new MSci courses are ideal if you want to continue in research or stand out when applying for a PhD.
- The additional, fourth year includes an extended research project and advanced research skills training with an emphasis on enterprise. You will plan projects, communicate with a variety of audiences, and learn to translate and commercialise research.

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Career prospects

• Many of our graduates go on to undertake a MSc by Research or PhD studentships as a first step in a research career

• Others go on to achieve careers in:
  ▪ Biotechnology or Pharmaceutical Industry
  ▪ Law, Manufacturing, Food Industry
  ▪ Education, Finance or Management
  ▪ Journalism or Science Communication
  ▪ MSc degrees in a wide range of subjects
  ▪ Postgraduate Certificate in Education
  ▪ Medicine or Dentistry

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Thank you