

MRes Infection Biology

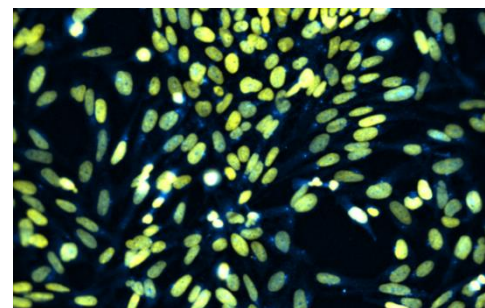
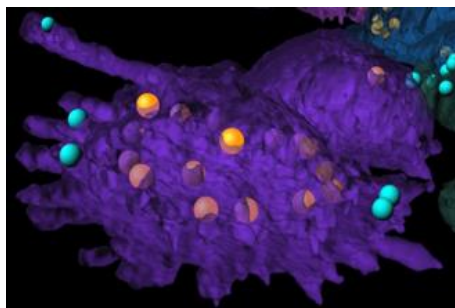
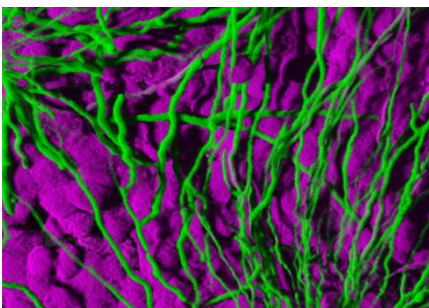
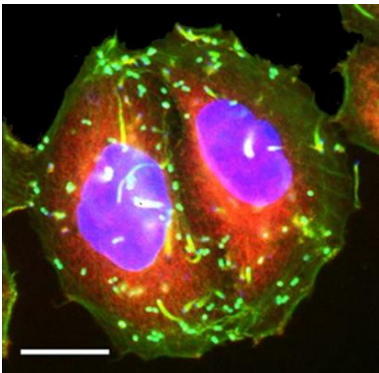
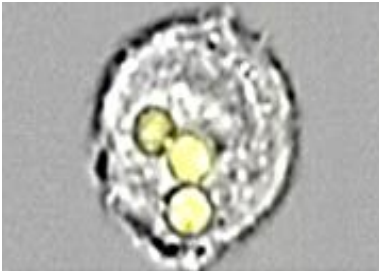
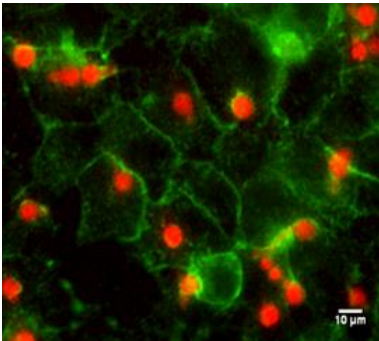
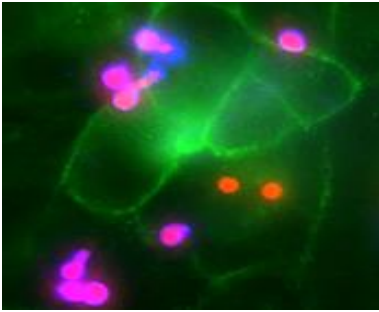
Acquire the knowledge and skills required to join the global fight against infectious diseases

Research-intensive training on diseases caused by fungi, parasites, bacteria and viruses

- Host-pathogen interactions
- Virulence factors
- Anti-microbial immunology
- Antimicrobial resistance
- Biofilms
- Vaccine development
- Microbiome
- Molecular diagnostics
- Clinical microbiology
- Epidemiology



<http://www.manchester.ac.uk/study/masters/courses/list/12079/mres-infection-biology/>



MRes Infection Biology

At-a-glance overview of the programme

The MRes in Infection Biology is a postgraduate course providing exemplary academic and research training in the molecular basis of host-microbe interactions in health and disease. This course provides an opportunity to learn directly from internationally recognised scientists through joint research, thereby providing sustained interaction with expert mentors for the duration of the course.

The emphasis is on molecular approaches used to understand infection as an integrated function of microbial pathogenic strategy and physiology, and host responses to pathogen challenge.

This is a full time course comprised of 7 compulsory units

Research methods: A blended combination of lectures, workshops and on-line material designed to cover topics relating to critical analysis of scientific/medical research and literature, information management, study design, basic statistical analysis, ethics, fraud, plagiarism and medical and academic misconduct, presentation skills, scientific writing and publishing skills.

Technologies Workshops: These will provide practical training in advanced practical skills, giving students exposure to techniques which they might otherwise not be exposed to through their projects. Each session will be led by an expert from one of the participating labs and will consist of an explanation of the technique, followed by a practical demonstration, possibly with hands-on experience.

Journal Clubs: In these sessions, students will meet to review and discuss relevant research papers. Each session will be led by a senior researcher who will suggest papers for discussion.

Research Seminars: Students will be expected to attend departmental seminar programmes. This will include presentations provided by outside speakers.

Research projects: Each student will complete one extended research project during the year, designed to give practical experience of laboratory research. The experience gained will help in developing and focussing research skills in modern biomedical research laboratories. Research projects will be written up and formally evaluated. Students will present their research as an oral presentation to a group comprising the MRes students, the course organisers and members of the faculty.

Grant writing exercise: The grant writing exercise is intended to give the student an idea of the grant writing process from the initial idea to the submission and peer review of the proposal. Each student will develop and submit a grant application as PI.

