



PHARMACOLOGY AND DRUG DEVELOPMENT/PHARMACOLOGYAND EDUCATION

"THE MSc HAS BEEN INTELLECTUALLY ENRICHING AND PERSONALLY TRANSFORMATIVE; IT HAS BROADENED MY HORIZONS AND BUILT MY CONFIDENCE IN PURSUING A GLOBAL CAREER IN DRUG DEVELOPMENT"

KASHMIRA CHAUDHARI, MSc IN PHARMACOLOGY AND DRUG DEVELOPMENT, CLASS OF 2025



TWO INSPIRING PROGRAMMES

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The MSc in Pharmacology and Drug Development

provides comprehensive insight into the drug development process across academic, clinical and industrial settings. This unique blend of expertise and engagement with leading educators and industry professionals opens up exciting opportunities to expand your career prospects in a rapidly evolving field.

The MSc in Pharmacology and Education provides a deep insight into therapeutics, while allowing you to develop your knowledge and skills as an educator – preparing you to pursue a career in academia.

DR NGUOK NGIE SU,PROGRAMME DIRECTOR



CONTENTS

- 2 WELCOME
- CASE STUDY: TANISHTA RAMASAWMY, CLASS OF 2021
- 5 SHAPE YOUR FUTURE THROUGH POSTGRADUATE STUDY
- DISCOVER THE MSc IN PHARMACOLOGY
 AND DRUG DEVELOPMENT
- DISCOVER THE MSc IN PHARMACOLOGY AND EDUCATION
- 13 MODULES
- 16 PROGRAMME TIMELINE
- 18 SUPPORTING YOU TO SUCCEED
- 19 YOUR APPLICATION

FULL-TIME: 1 YEAR
PART-TIME: 2 YEARS

(please note that the part-time study option is only available to those international students who do not require a visa to study in the UK)

- BASED PRIMARILY
 AT THE UNIVERSITY
 OF HULL
- AVAILABLE AS
 AN INTERCALATED
 DEGREE





THE COURSE IS HIGHLY RELEVANT TO REAL-LIFE WORKPLACE SITUATIONS

TANISHTA RAMASAWMY,

UK COUNTRY SAFETY HEAD & PHARMACOVIGILANCE LEAD FOR WESTERN EUROPE, SANOFI

I completed my BSc in Pharmacology, but wanted to deepen my expertise by pursuing an MSc. I chose the Hull York Medical School programme because of its strength in drug development, which aligned with my career goals. Additionally, as a working professional, the flexibility to study while working was a key factor in my decision.

I thoroughly enjoyed the course, finding it highly relevant to real-life situations in my workplace. The lecturers and professors were excellent in their explanations, making complex concepts accessible.

The most valuable aspect of the programme was the opportunity to explore the early stages of drug discovery, along with the ability to network with industry professionals.

Since graduating, I have made significant progress in my career. The combination of my work experience and the knowledge gained from the programme has integrated seamlessly, supporting, and accelerating my professional growth.

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I THOROUGHLY ENJOYED THE COURSE, AND WOULD HIGHLY RECOMMEND IT

STUDIED:

MSc IN PHARMACOLOGY AND DRUG DEVELOPMENT

GRADUATED:

2021

JOB TITLE:

UK COUNTRY SAFETY HEAD & PHARMACOVIGILANCE LEAD FOR WESTERN EUROPE, SANOFI



A Masters qualification from Hull York Medical School could be the next step you need to advance your career and achieve your goals.

Here, you'll become part of a vibrant and supportive community of creative and critical thinkers, working alongside field experts to take your knowledge and skills to the next level.

As the joint medical school of the University of Hull and the University of York, we offer a unique blend of world-class expertise and facilities, designed to help you achieve success. When you graduate, you will do so equipped with the skills to make a real difference to people's lives.

Are you ready to join a different kind of medical school?









THE MSC IN
PHARMACOLOGY AND
DRUG DEVELOPMENT
PLACED ME AHEAD OF
OTHER APPLICANTS
WHEN INTERVIEWING
WITH MY CURRENT
EMPLOYER

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I WAS ATTRACTED TO STUDY THE MSc IN PHARMACOLOGY AND DRUG DEVELOPMENT BECAUSE OF THE STRUCTURE OF THE COURSE AND THE MODULES WHICH COVER ALL ASPECTS OF DRUG DEVELOPMENT. THE SCHOOL HAS PROVIDED EVERYTHING I NEEDED TO EXCEL, NOT ONLY IN THE COURSE, BUT ALSO IN MY DRUG DEVELOPMENT CAREER. IT WAS A PHENOMENAL EXPERIENCE FOR ME AND A SIGNIFICANT PUSH INTO THE NEXT PHASE OF MY CAREER.

OLALEKAN AYUBA,

MSc PHARMACOLOGY AND DRUG DEVELOPMENT, CLASS OF 2022

DISCOVER

THE MSc IN PHARMACOLOGY **AND DRUG DEVELOPMENT**

Pharmacology is the scientific discipline that explores how drugs interact with biological systems. It plays a vital role in understanding the effects, mechanisms, and therapeutic uses of medications across a wide range of healthcare fields, including medicine, nursing, dentistry, and veterinary science.

By studying pharmacology, we gain insights into how drugs are developed. how they work in the body, and how they can be used safely and effectively to treat diseases. This knowledge is essential for advancing medical research, improving patient care, and shaping the future of healthcare.

This programme is aimed at applicants from a wide range of backgrounds, including clinical, pharmaceutical, biomedical, life or basic sciences, which creates a unique, stimulating and collaborative environment. If you are a highly motivated, inquisitive student, looking to push the boundaries of contemporary knowledge in pharmacology and drug development, whilst at the same time extending yourself and boosting your career opportunities in a high achieving academic setting, then this programme is for you.

You will benefit from the academic. educational and industrial expertise within our Centre for Biomedicine. and will also be taught by leading clinical and industrial experts from outside the Centre, including scholars from the Hull Health Trials Unit.

This ensures you receive high quality tuition covering the principles and process of clinical trials, including study rigour, participant recruitment, data analysis and interpretation. and regulation and governance.

As well as learning from our tutors' expertise, you will be challenged to think differently and develop skills to become a self-directed learner - allowing you to continually grow your pharmacology knowledge throughout your career.

Through our founding corporate partner Reckitt, the leading global hygiene, health and nutrition company behind global brands such as Nurofen and Gaviscon, you will also experience regular contact with an industrial mentor, access to Reckitt's state-ofthe-art Science and Innovation Centre in Hull, and taught sessions delivered by industry employees alongside university colleagues.



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BY WORKING WITH HULL YORK MEDICAL SCHOOL, WE ARE HELPING TO SHAPE THE DEVELOPMENT AND **DELIVERY OF THE CURRICULUM TO EQUIP TOMORROW'S** RESEARCHERS WITH INVALUABLE INDUSTRY INSIGHTS AND EXPERIENCE. THIS KNOWLEDGE IS USEFUL TO THOSE ENTERING CLINICAL AND ACADEMIC CAREERS, AS WELL AS THOSE ASPIRING TO WORK IN INDUSTRY.

BRUCE CHARLESWORTH, CHIEF MEDICAL OFFICER AT RECKITT



MSc IN PHARMACOLOGY AND DRUG DEVELOPMENT: KEY FACTS

PROGRAMME DURATION

You can choose to study full-time for one year, or part-time over two years to fit around your work and home life. Please note that the part-time study option is only available to those international students who do not require a visa to study in the UK.

LOCATION

You will be based predominantly at Hull York Medical School's facilities at the University of Hull, although some sessions might be delivered online or off campus by external providers.

MODULES

The programme is a 180 credit Masters programme, with six taught modules (five core, one optional at 20 credits each), and a core research project/dissertation (60 credits). Learn more about modules on p13.

ASSESSMENT

Assessments vary by module, and include oral presentations, essays, portfolio, practical write ups, poster presentations, and project work. See p13 for individual module details.

INTERCALATION

The MSc in Pharmacology and Drug Development will help give intercalating medical students a deeper understanding and appreciation of prescribing and the science of medicines, which can open up a possible career as a Medical Adviser. Learn more about intercalation on p19.

CAREERS

Through studying this Masters programme you will have the opportunity to develop key skills essential for effective design, delivery and interpretation of laboratory and clinical data. This skill set is key for multiple roles within the industrial, medical and academic sectors, both in the UK and internationally.

Within industry, this MSc is likely to open job opportunities in drug safety, quality, regulation and compliance, and in roles such as:

- Consumer Safety or Quality Manager
- Clinical Data Associate
- Clinical Data Manager
- More traditional lab roles.

Through studying this Masters, you will also develop the skills to further your academic career by pursuing a PhD.





HOW IS THE PROGRAMME TAUGHT?

We place an emphasis on helping you to develop the self-directed learning skills that will equip you for lifelong learning and future employment, as well as allowing you to flourish academically in your programme.

With our philosophy of research-led teaching, you will be taught through a combination of practicals, lectures, seminars, tutorials and independent study. Some of these sessions may be online, whilst others will involve external speakers.

This combination of different teaching activities allows you to broaden and deepen your learning around the topics in this programme.

The MSc programme is built around core modules that cover the fundamental principles of pharmacology and the clinical relevance of drugs for the major organ systems, whilst demonstrating the drug development process, from initial drug design to understanding the importance of clinical trials. Learn more about modules on p13.

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I have mentored students on the MSc programme; it has been a pleasure getting to know them and finding out about their career aspirations. I have been arranging post-study work experience opportunities that will allow them to explore potential job roles within Reckitt and the wider industry. I see this as a positive way for us to support students with getting some experience under their belt, and for us to benefit from their training and insight. \blacksquare

JOANNA ROWLAND, CONSUMER SAFETY DIRECTOR AND **INDUSTRIAL MENTOR** AT RECKITT





DISCOVER

THE MSc IN PHARMACOLOGY AND EDUCATION

Now more than ever, Pharmacology plays a critical role in healthcare. If you are interested in becoming a pharmacology educator or clinical researcher, and passing on your expertise to the next generation of pharmacology students and colleagues, the MSc in Pharmacology and Education is ideal.

This programme combines modules from the MSc in Pharmacology and Drug Development programme with our Higher Education Academy-accredited MSc in Health Professions Education.

Our MSc in Pharmacology and Education will provide you with a unique opportunity to advance your pharmacology knowledge alongside developing as an educator.

You will learn from experts at the forefront of pharmacology, medicine or medical education. This includes external experts, our own Health Trials Unit, pharmacology academics and our Health Professions Education Unit (hyms.ac.uk/hpeu).

You will finish your year with us by conducting a significant research project focussing on generation of novel data to support and improve pharmacology education for both science or medical professions. We will support you to increase your chances of getting your work published.

HOW IS THE PROGRAMME TAUGHT?

We encourage all of our students to be lifelong self-directed learners. You will have numerous opportunities to immerse yourself in the subject, enhance your knowledge and gain new skills, but you will be the driving force behind your own learning and development.

We employ a variety of teaching and learning techniques to deliver this programme. These include structured sessions led by clinicians and/or tutors as well as a blended route to mix face-to-face study days with online learning.

The programme is built around core modules that cover the fundamental principles of pharmacology, the clinical relevance of drugs for the major organ systems and the fundamental processes involved in clinical trials. Alongside the pharmacology component, there are core modules covering learning and teaching, assessment, and research methods to train the educators of tomorrow.



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THE MSC IN PHARMACOLOGY AND EDUCATION HAS STRONG PARTNERSHIPS WITH HULL UNIVERSITY TEACHING HOSPITALS AND LOCAL INDUSTRY WHICH PROMISES INVALUABLE HANDS-ON EXPERIENCE THAT BRIDGES THE GAP BETWEEN THEORY AND PRACTICE.

THE PROGRAMME WAS INSTRUMENTAL IN EQUIPPING ME WITH THE NECESSARY SKILLS AND KNOWLEDGE TO EXCEL IN VARIOUS PROFESSIONAL PATHS, OPENING UP A WIDE RANGE OF CAREER OPPORTUNITIES. THE COMPREHENSIVE CURRICULUM HAS PROVIDED ME WITH A ROBUST FOUNDATION IN BOTH PHARMACOLOGY AND EDUCATION.

VAIBHAVI VIJAY SARGADE,

MSc IN PHARMACOLOGY AND EDUCATION, CLASS OF 2024

MSc IN PHARMACOLOGY AND EDUCATION: KEY FACTS

PROGRAMME DURATION

You can choose to study full-time for one year, or parttime over two years to fit around your work and home life. Please note that the part-time study option is only available to those international students who do not require a visa to study in the UK.

LOCATION

You will be based predominantly at Hull York Medical School's facilities at the University of Hull, although some sessions will be delivered online or off campus by external providers. You may also be required to travel to the University of York for some study days on the educational modules.

MODULES

The programme is a 180 credit Masters programme, with six core taught modules (20 credits each), and a core research project/dissertation (60 credits). Learn more about modules on p13.

ASSESSMENT

Assessments vary by module, and include written assessments, oral presentations, and a dissertation. See p13 for individual module details.

INTERCALATION

The MSc in Pharmacology and Education will help give intercalating medical students a deeper understanding and appreciation of prescribing, as well as giving you a competitive edge when applying for foundation year training and jobs. Learn more about intercalation on p19.

CAREERS

Through studying this MSc, you will have the opportunity to expand your pharmacology and therapeutics knowledge as well as gaining an insight into the clinical trials process. Alongside this, the course will equip you with practical knowledge to deliver exceptional teaching, assessment and research.

This skill set is key for multiple roles within the industrial, medical and academic sectors. This course will provide you with expertise to help you become a pharmacology educator and will be useful for those wishing to follow an academic or clinical academic career.

In addition, this MSc will give you knowledge and experience to pursue a career in the pharmaceutical industry and is likely to open job opportunities in drug safety, quality, regulation and compliance.

CORE MODULES

ON BOTH PROGRAMMES

Our Pharmacology programmes offer a mix of shared and unique modules that allow you to broaden and deepen your learning around the relevant topics.

FOUNDATIONS OF PHARMACOLOGY

You will learn, discuss, and critically analyse key pharmacological topics such as the general principles of drug action, pharmacodynamics, pharmacokinetics, and adverse drug reactions which underpin the drug development process.

ASSESSMENT:

Written assessment (100%)

BENCH TO BEDSIDE II: CLINICAL TRIALS

You have designed a drug - but what next? This module will give you a detailed overview of clinical trials. You will reflect on the different elements of trial design. understand the phases of clinical trials, all the time developing your skills in evidence synthesis and critical appraisal.

ASSESSMENT:

Clinical trial protocol review (100%)

DISSERTATION

You will have the opportunity to put your new skills to the test by undertaking a substantive research project within the field of pharmacology, with the opportunity to publish vour results.

ASSESSMENT:

Oral presentation (20%), Dissertation (80%)

ADDITIONAL MODULES

PHARMACOLOGY AND DRUG DEVELOPMENT

CORE MODULES

PRACTICAL RESEARCH SKILLS IN PHARMACOLOGY

BENCH TO BEDSIDE I: DESIGN AND DISCOVERY

DRUG REGULATION

Experimental pharmacology goes hand in hand with the need to develop practical lab skills. In this module you will complete laboratory-based experiments to refine your rigorous approaches to working through an experimental protocol, gaining knowledge of different scientific phenomena.

You will examine the work that goes on before a drug is given to humans, learning the core concepts of drug design, and having the opportunity to visit testing facilities, where you will receive input from experts in the pharmaceutical industry.

This optional module will provide hands-on experience to understand the key role that regulations play in the whole drug development process, from initial discovery and preclinical studies, through clinical trials, obtaining marketing authorisation and post-marketing activities.

ASSESSMENT:

Lab report and COSHH form (100%)

ASSESSMENT:

Portfolio (100%)

ASSESSMENT:

Portfolio (100%)

OPTIONAL MODULES

ANALYTICAL SKILLS IN PHARMACOLOGY

This module will provide experience of specific analytical laboratory techniques as a means of illustrating key techniques used within the process of drug development.

THERAPEUTICS

In this module, optional on the Pharmacology and Drug Development programme and core on the Pharmacology and Education programme, you will explore the use of drugs in cardiovascular, cancer, gastrointestinal, renal, respiratory, rheumatological, and endocrine disease as well as exploring areas of uncertainty around the prescription of medicines.

ASSESSMENT:

Lab report (60%), Online poster (40%)

ASSESSMENT:

Oral presentation (40%), Case study (60%)

PHARMACOLOGY AND EDUCATION

CORE MODULES

LEARNING AND TEACHING

ASSESSMENT AND FEEDBACK

This module will introduce you to the key principles of teaching and learning in the health professions. It will enable you to confidently prepare, deliver and evaluate teaching sessions in your area of practice, and will introduce you to scholarship in teaching and learning.

You will be provided with the framework to analyse and review your experiences in assessment and feedback. You will learn to engage critically with literature relating to assessment and feedback and use case studies to explore the relationships between assessment, feedback and learning.

ASSESSMENT:

Written assignment (100%)

ASSESSMENT:

Written assignment (100%)

RESEARCH APPROACHES IN HEALTH PROFESSIONS **EDUCATION**

This module will introduce you to key concepts in quantitative and qualitative research in order to form a research question, plan an appropriate methodological approach and method for data collection and analysis, and write a research proposal.

ASSESSMENT:

Written assignment (100%)

THERAPEUTICS

In this module, optional on the Pharmacology and Drug Development programme and core on the Pharmacology and Education programme, you will explore the use of drugs in cardiovascular, cancer, gastrointestinal, renal, respiratory, rheumatological, and endocrine disease as well as exploring areas of uncertainty around the prescription of medicines.

ASSESSMENT:

Oral presentation (40%), Case study (60%)



THIS PROGRAMME HAS **GIVEN ME IN-DEPTH INSIGHT** INTO BOTH THE DRUG **DEVELOPMENT PROCESS AND** THE MECHANISMS BEHIND **DIFFERENT CLASSES OF** DRUGS. IT HAS HELPED ME TO UNDERSTAND AND APPLY THE MATHEMATICAL AND LABORATORY SKILLS REQUIRED IN BOTH PHARMACOLOGY AND THE DRUG DEVELOPMENT INDUSTRY. IT HAS ALSO HELPED ME FURTHER DEVELOP MY CRITICAL THINKING SKILLS, THROUGH CRITIQUING SCIENTIFIC STUDIES.

TALIA SALISBURY,

MSc IN PHARMACOLOGY AND DRUG **DEVELOPMENT. CLASS OF 2025**

PROGRAMME TIMELINE*

MSc IN PHARMACOLOGY AND DRUG DEVELOPMENT

FULL-TIME OPTION

TERM 1	TERM 2	TERM 3 (+SUMMER)	
 Foundations of Pharmacology (20 credits) Practical Research Skills in Pharmacology (20 credits) Bench to Bedside I: Design and Discovery (20 credits) 	 Bench to Beside II: Clinical Trials (20 credits) Drug Regulation (20 credits) Analytical Skill in Pharmacology (20 credits) OR Therapeutics (20 credits) 		
• Dissertation (60 credits) Result collection, analysis and write up			

TWO YEAR PART-TIME OPTION

	TERM 1	TERM 2	TERM 3 (+SUMMER)	
YEAR 1	 Foundations of Pharmacology (20 credits) Practical Research Skills in Pharmacology (20 credits) OR Bench to Bedside I: Design and Discovery (20 credits) 	 Analytical Skill in Pharmacology (20 credits) OR Therapeutics (20 credits) OR Bench to Bedside II: Clinical Trials (20 credits) AND Drug Regulation (20 credits) 		
YEAR 2	 Bench to Bedside I: Design and Discovery (20 credits OR Practical Research Skills in Pharmacology (20 credits) 	 Bench to Bedside II: Clinical Trials (20 credits) AND Drug Regulation (20 credits) OR Analytical Skill in Pharmacology (20 credits) OR Therapeutics (20 credits) 		
	Dissertation (60 credits) Result collection, analysis and write up			

MSc IN PHARMACOLOGY AND EDUCATION

FULL-TIME OPTION

TERM 1	TERM 2	TERM 3 (+SUMMER)		
 Foundations of Pharmacology (20 credits) Learning and Teaching (20 credits) Research Approaches (20 credits) 	 Therapeutics (20 credits) Bench to Bedside II: Clinical Trials (20 credits) Assessment and Feedback (20 credits) 			
Dissertation (60 credits) Result collection, analysis and write up				

TWO YEAR PART-TIME OPTION

	TERM 1	TERM 2	TERM 3 (+SUMMER)
YEAR 1	 Foundations of Pharmacology (20 credits) Learning and Teaching (20 credits) 	 Bench to Bedside II: Clinical Trials (20 credits) Assessment and Feedback (20 credits) 	
:AR 2	• Research Approaches (20 credits)	• Therapeutics (20 credits)	
ΥE	Dissertation (60 credits) Result collection, analysis and write up		

SUPPORTING YOU

When you join Hull York Medical School, you join a close-knit community. Our aim is to ensure you get the most out of your time here, and that you are supported throughout your postgraduate studies.

Our postgraduate programmes are intensive and challenging but ultimately hugely rewarding. Our programmes support you to become a self-directed learner – and therefore a lifelong learner.

We recognise that there may be times when you need additional support to help you manage academic or personal pressures, and we are here to help.

Our Student Wellbeing Team have expertise in supporting postgraduate students and can help signpost students to support services within the Medical School, in our parent universities and external agencies as appropriate.

LEARN MORE
ABOUT STUDENT
SUPPORT AND
WELLBEING



YOUR **APPLICATION**



ENTRY REQUIREMENTS

Applicants must have previous training in the life sciences (e.g. graduates from medical, biomedical, pharmacy or biological undergraduate courses), Chemistry/Pharmacology or other related fields with a minimum 2.2 (Hons) degree or equivalent.

Intercalating medical students must have successfully completed a minimum of three years of an MB BS or comparable medical qualification.

Applicants whose first language is not English must have one of the following:

- IELTS: 6.5, with no less than 6.0 in each component
- PTE Academic: 61, with no less than 55 in each component
- CAE and CPE (from January 2015): 176, with no less than 169 in each component
- TOEFL: 87. with a minimum of 21 in each component
- Trinity ISE: level 3 with Merit in all components
- LangCert B2 Communicator High Pass (minimum score 33/50)
- WASSCE: C5

INTERCALATION

If you are currently studying Medicine, you may have the option to take a year out of your medical degree to do an intercalated degree. Choosing to intercalated brings many benefits, from broadening your horizons through study of a subject you are passionate about, to developing your research and academic inquiry skills and career prospects.

A well-chosen intercalation programme can provide a significant career stepping stone, whether as a clinical academic or in a particular specialism, providing you with the broader skillset and expertise vou need to succeed in your chosen area. Discover more about the benefits of intercalating on our Pharmacology programmes on p8 and p11.

KEEP IN TOUCH

There are lots of ways to find out more about our Pharmacology programmes. From virtual taster sessions, to on-campus Open Days, we run events around the year to allow you to gain a deeper insight into postgraduate study at Hull York Medical School.

Click the links above to visit our website where you can find details of upcoming events, or subscribe to our postgraduate newsletter so you never miss the latest announcements.

Or, if you have any queries, please contact us at pgtadmissions@hyms.ac.uk









Admissions enquiries: pgtadmissions@hyms.ac.uk



Visit our website for the latest information:

Pharmacology and Drug Development hyms.ac.uk/pharmacology-drugdevelopment



Pharmacology and Education hyms.ac.uk/pharmacology-education







Hull York Medical School



Hull York Medical School

All details were correct at time of publication (September 2025). For the most up-to-date programme information and entry requirements, please visit hyms.ac.uk/pharmacology-drug-development and hyms.ac.uk/pharmacology-education.