Newcastle University

Research Scholarships and Expeditions 2025

Wednesday 26th November

Introduction to Research Scholarships 2025

Professor Ruth Valentine
Pro-Vice-Chancellor (Education)
Chair of the University Research Scholarships Committee

Students are an integral part of our research culture at Newcastle University. By taking part in any research experience, students develop as independent thinkers, learn new skills and are exposed to the vibrant research culture and environment of the University.

We support undergraduate students through the Research Scholarship scheme to allow them to work alongside researchers on 6-to-8-week summer projects and, through the Expeditions scheme, to help to fund students to undertake field research in other countries. Recent projects have involved researching in archives, working on archaeological material, collecting, analysing, and interpreting social data, working on a laboratory project, or travelling to another part of the world to undertake research in an unfamiliar and challenging environment.

Independent research carried out with the support of more experienced researchers builds confidence and develops analytical skills. For some students the experience of research will stimulate or confirm an interest in postgraduate study and research, for others it will be a way to enhance their skills and experience. The production of a poster at the end of the project helps students to further develop their presentational skills and underline the importance of being able to communicate research findings to a variety of audiences.

This scholarship scheme is a fantastic experience for our students and is a great opportunity for our colleagues to work with our enthusiastic and talented students in a different setting.

Introduction to Expeditions 2025

Professor Rachel Carr
Chair of the University Expeditions Committee

Newcastle University has a long and exciting history of student expeditions dating back to 1948 when a small group of Geography undergraduates took part in a pioneering expedition to Iceland. This initial expedition was guided by Hal Lister, a glaciologist and noted Arctic and Antarctic explorer, who later became a Reader here in the Geography Department. He took part in many expeditions including the British North Greenland (1952-1954) and Commonwealth Trans-Antarctic (1955-1958) Expeditions and was a strong advocate of undergraduates gaining experience of fieldwork through expeditions. His legacy of promoting and supporting student expeditions continues to this day.

Since the first expedition in 1948, subsequent expeditions have been organised and conducted by students undertaking research in more than ninety different countries, and from a wide range of disciplines from each of the three University faculties. Expeditions have been carried out in a diverse range of environments and destinations, with examples including Brazil, Costa Rica, Ethiopia, Fiji, Greenland, Nepal, Peru and Tanzania. Research has been carried out on a wide range of topics including biodiversity, ethnography, territoriality and identity, nursing and medical care, and melting glaciers.

Organising an overseas expedition is a logistically challenging exercise, requiring students to develop research aims and objectives, identify study sites, learn new techniques, obtain field equipment, and liaise with research counterparts and institutions overseas. An additional challenge is that overseas expeditions require substantial funding which the students must raise themselves, including from external professional bodies such as the Royal Geographical Society and commercial sponsorship.

The students who rise to these challenges develop and gain a wide range of valuable skills and team-working and leadership experience. In addition to the hugely rewarding experience that they obtain throughout the whole expedition process, from developing initial ideas and planning through to successful completion and write-up, they always return with new skills, a huge sense of satisfaction and fulfilment, and increased confidence and maturity. I always look forward to hearing about and celebrating their exciting endeavours and achievements when they return.

Research Scholarships and Expeditions 2025

Newcastle University's thriving Research Scholarships and Expeditions programmes go from strength to strength.

Once again this year there has been significant interest in the University's Research Scholarship scheme with 51 projects being funded by the University's Research Scholarship Committee across all three faculties – Humanities and Social Sciences, Medical Sciences and Science, Agriculture and Engineering. While many students were funded by the University, 3 students were successful in obtaining external funding from other organisations, including the British Psychological Society and the British Pharmacological Society. 11 students were also supported through the Developing Excellent Researchers Summer Vacation Scheme. Research Scholarship funding was also made available to support students based at the University's branch campus in Malaysia to complete summer research projects.

Two Expeditions, to Brazil and New Zealand, were also undertaken by 8 students from the Schools of Geography, Politics and Sociology. Funding towards these expeditions was awarded by the University's Expeditions Committee, Harry Collinson Travel Scholarship and Sonia Stonehouse Expedition Fund, as well as several external organisations including the Royal Geographical Society and Jeremy Wilson Trust.

The continuing success of the University's Research Scholarships and Expedition schemes demonstrate the strength of the University's reputation both for the quality of the research training provided, and for the creativity of our students and staff in putting forward ideas for interesting and useful research projects to foster personal development, enhance future, career prospects and widen the academic experience of many students.

The projects and expeditions carried out during summer 2025 are described in this brochure and academic posters can be viewed before the presentations.

Reception and Presentations

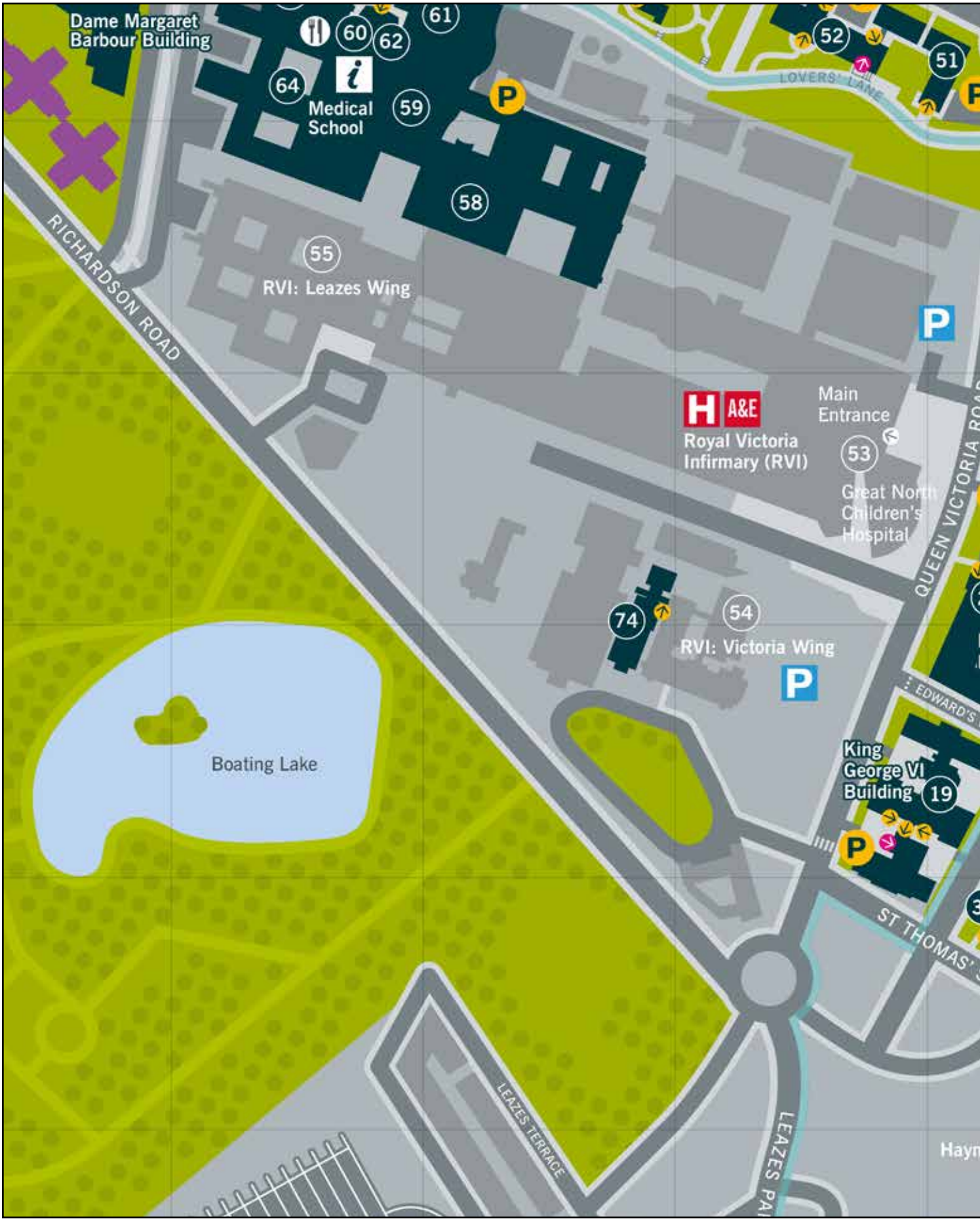
This year's Celebrating Research Scholarships and Expeditions event will take place on Wednesday 26th November 2025.

From 3:00pm a display of posters in the King's Hall, Armstrong Building, will showcase student research scholarship and expedition achievements and provide an opportunity to speak to the students who have carried out summer research.

From 4:45pm, in the Curtis Auditorium, Hershel Building, selected students will give presentations about their research scholarship projects and expeditions describing their aims, how they conducted their research and the outcomes.

3:00 - 4:30pm	Posters available for public viewing in the Kings Hall, Armstrong Building (Location 22 on the map) Refreshments served for students, supervisors and invited guests, Kings Hall, Armstrong Building
4:45 - 5:00pm	Welcome and introductions by Professor Ruth Valentine and Professor Rachel Carr, Curtis Auditorium, Herschel Building (Location 17 on the map)
5:00 - 6:15pm	A selection of presentations from : Brazil Expedition, Carmen Benbow, Max Liu, Rowan Dawson, Lydia Loughran, *Investigating the environmental and anthropogenic interactions in the mangrove and dune systems of the Preguiça's River estuary* FMS, Dharesh Raj Amarnath, *The Impact of Donor Time to Death on Liver Transplant Outcomes* FMS and HaSS Faculty, Sophia Nahid and Amiee Trinder, *Historical Influences on Contraception in the UK and Gendered Disparities in Development* SAgE Faculty, Thomas Darron, *Automatic farmland biodiversity monitoring of farmland birds through AI* New Zealand Expedition, Henry Wilson, Alex Biddulph, Joe Hopkinson, Jack Clough, *A geomorphological analysis of the Aoraki/Mount Cook region*
6:15 - 6:30pm	Announcement of winners and commendations
6:30pm	Event Closes

Research Scholarships and Expeditions 2025




September 2023
Kensington Terrace
WINDSOR TERRACE
DEVONSHIRE TER
Robinson Place
HADRIAN BRIDGE
Philip Robinson Library
Carlton Lodge
CLAREMONT
DEVONSHIRE WALK
Merz Court
Claremont Quadrangle
Percy Quadrangle
Old Library Building
JESMOND ROAD
Jesmond Road
Great North Museum: Hancock
Great North House
Marjorie Robinson Library Rooms
BARRAS BRIDGE
CLAREMONT WALK
OLD LIBRARY LANE
King's Hall
Old Quadrangle
Hatton Gallery
Armstrong Building
Due for completion early 2023
SANDYFORD ROAD
Northern Stage
KING'S GATE LANE
Student Forum
Union Lawn
ARMSTRONG LANE
Bedson Building
KING'S WALK
Students' Union
King's Gate
KING'S ROAD
Hadrian Building
HAYMARKET
Civic Centre
Main pedestrian access to campus
Herschel Annex
Bernicia Halls
ASSEMBLY LANE
Grand Hotel
BREWERY LANE
Herschel Building
INTO Centre
Church of St.Thomas the Martyr
ST MARY'S PLACE
City Centre
Joseph Cowen Halls
VINE LANE
City Hall
PERCY STREET
RIDLEY PLACE
JOHN DOBSON STREET
COLLEGE STREET
Haymarket
Haymarket Bus Station
NORTHUMBERLAND RD

Presentations

Dharesh Raj Amarnath

MBBS

The Impact of Donor Time to Death on Liver Transplant Outcomes

Liver transplantation is the best treatment for patients with advanced liver disease and some cancers. However, there is a global shortage of high-quality donor livers. In one type of donation, organs come from patients after life-supporting treatment is stopped. There are concerns that livers from patients who take a long time to die after stopping life-support (time-to-death, TTD) may not work well. As a result, these livers are often discarded.

In our study, we found that, contrary to popular belief, livers from donors who died quickly had worse outcomes. In contrast, livers from donors with longer TTD showed no inferior outcomes. Despite this, livers from longer TTD donors are used less often, representing unnecessary organ waste. We estimated that using these livers would have enabled an additional 22.8% liver transplants. Our findings provide a safe and simple approach to increase organ availability, providing hope to patients on transplant waiting lists.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Mr Samuel Tingle

Thomas Darron

BSc Hons Zoology

Automatic farmland biodiversity monitoring of farmland birds through AI

To prove the success of actions to increase biodiversity, implemented by farmers in response to Defra's Environmental land policy, surveys need to be conducted. In the summer months, bird identification by sight is both expensive and impractical, this research will focus on recording bird song to survey 10 key species on the farm. Building off a bank of annotated data and aided by data collected using Passive Acoustic Monitors (PAM) to record song on site, we will create and train an AI with the purpose of providing an accurate, automatic and passive identification of a list of key species located on site, through these PAMs. Through R studio coding, the AI and data collected will then be used to create a website, where audio files can be uploaded and the site will be able to accurately identify if any of the key species are present, and which ones.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Roy Sanderson

Amiee Trinder and Sophia Nahid
MBBS and BA Hons History

Historical Influences on Contraception in the UK and Gendered Disparities in Development

Using a meta-narrative review approach, this project aims to situate the history of contraception, both male and female, within social and political climates as well as within feminist theory. Combining the interdisciplinary perspectives of Medicine and History allows for a layered and comprehensive narrative of the political and social journey contraceptive health has taken.

Birth control methods for women take many forms such as the combined oral contraceptive pill and other long-acting reversible contraceptives; These methods are commonly used in the UK even though they may result in an increased health risk and negative side effects. In contrast, male contraception is largely limited to vasectomies and condoms. The development of birth control has provided women with sexual and economic liberation, but this combined with a lack of innovation in male contraception has resulted in a disproportionate burden of reproductive responsibility. Therefore, identifying relevant socioeconomic and medical factors for this lag and the medicalisation of women, allows for constructive change. Ultimately, development of male contraception relies on scientific, industrial and public interest to equalise the contraceptive burden. However, as the consequences of contraceptive failure still disproportionately affect women, progression in societal attitudes is also needed.

Funded by: Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Heidi Stelling, Dr Megan Brown and Dr Bryan Burford

Carmen Benbow, Max Liu, Rowan Dawson, Lydia Loughran
BSc Hons Physical Geography and BSc Hons Geography

Brazil Expedition: Investigating the environmental and anthropogenic interactions in the mangrove and dune systems of the Preguiça's River estuary

This summer we travelled to Maranhão in northeast Brazil to carry out fieldwork in the mangrove forests and surrounding dune systems of the Preguiças estuary near Atins.

This region hosts some of the largest mangrove forests in the world, making it vital to study the environmental and anthropogenic pressures they face. Our expedition investigated these ecosystems from complementary angles to build a broader understanding of how natural processes and human impacts interact.

In the dunes, we measured sediment transport using traps, anemometers, and moisture probes to link wind speed and soil wetness to grain size movement. This data will show how dune dynamics influence the stability of adjacent mangrove ecosystems.

Within the mangroves, we examined soil samples for microplastic content to assess how human activity contributes to plastic accumulation and dispersal through estuarine processes. Alongside this, we investigated diatoms within mangrove soils as bioindicators of microhabitat conditions. This provides a way to reconstruct community structure and predict ecological shifts under climate change.

We also quantified mangrove carbon storage by measuring above ground biomass through allometric equations and by analysing the carbon content soil cores in the laboratory. This quantity of carbon storage allows us to consider the consequences of mass mangrove degradation from threats such as dune encroachment, saltwater intrusion and increasing tourism.

Together, these strands of research highlight the complex pressures facing Maranhão's mangroves from land, sea, and people. Our findings will contribute to understanding the resilience and vulnerability of one of the world's most important estuarine ecosystems.

Funded by: Newcastle University Expedition Fund, Harry Collinson Travel Scholarship Fund, Sonia Stonehouse Grant, Royal geography society- Geographical Fieldwork Grants, Jeremy Wilson Trust

Project Supervisor: Professor Rachel Carr

Henry Wilson, Alex Biddulph, Joe Hopkinson, Jack Clough
BSc Hons Physical Geography and BSc Hons Geography

New Zealand Expedition: A geomorphological analysis of the Aoraki/Mount Cook region

Our expedition aimed to research mass-movement hazards, geomorphology, and hydrology in the Mount Cook region of New Zealand. We had a variety of projects which included spatial mapping and conducting grain size analysis on alluvial fans, comparing sediment characteristics between landslides and moraines, and measuring river regimes, velocity, sediment types and transport at different lengths downstream of a glacial and non-glacial river. This was completed using Emlid-Reach GPS units, Schmidt hammers, lichenometry, sediment logs and flow meters. We hope findings from our research will further develop: understanding of alluvial fan formation and debris flow and avalanche dynamics in the Aoraki/Mount Cook region, as well as hydrological differences between glacial and non-glacial rivers, and separate out climatic signals (from past glacial retreat) from mass movement generated landforms.

For the alluvial fan projects, initial analysis of results aligns with current literature regarding the theory that the 2022 avalanche onto Kitchener Fan deposited newer sediment onto the north side of the fan. With these initial findings, we hope to further understand why the geomorphology of an alluvial fan formed from debris flow events differs to one formed from additional avalanche deposits.

At first glance the Mueller Memorial Moraine's (MMM) morphology and profile appear distinctly different to other nearby moraines on the Mueller Glacier foreland, whilst similar to known rock-avalanche sourced moraine deposits. This could substantiate previous evidence that the MMM was the result of emplacement of a supra-glacial rock avalanche onto the Mueller Glacier

Funded by: Newcastle University Expeditions Committee, Royal Geographical Society (with IBG), Sonia Stonehouse Expedition Fund, The Jeremy Willson Charitable Trust

Project Supervisor: Professor Rachel Carr





Abbie Johnston

Master of Speech and Language Sciences

GLP-GAP: Mapping the Gap Between Emerging Theory and Speech and Language Therapy Practice in Gestalt Language Processing in the UK

Gestalt Language Processing (GLP) is theorised to be a style of language acquisition where children, commonly autistic, learn language through intonationally-salient chunks (called gestalts) memorised from real-life or media. GLP is associated with a clinical intervention approach called Natural Language Acquisition (NLA) which has become extremely popular in America despite an absence of research evidence to support it. This project looked at the extent to which Speech and Language Therapists in the UK are using GLP, and why these ideas are influencing practice without the backing of empirical evidence. 500 practicing paediatric Speech and Language Therapists from across the UK completed an online survey about their experiences with GLP and their thoughts on the benefits and drawbacks of GLP and NLA. Semi-structured interviews were conducted with a sub-sample of 24 therapists to map sources of influences from the three pillars of evidence-based practice: evidence, client perspective and clinical expertise.

Funded by: Barbara Stringer Speech and Language Sciences Research Scholarship

Project Supervisor: Dr Victoria Knowland

Abdelrahman Ghonaim

MBBS (NUMed)

The CARP Study

The CARP Study seeks to evaluate the clinical utility of Motor Unit MRI (MUMRI) in identifying fasciculation activity in ALS/MND patients using standard NHS MRI scanners (in Newcastle, UK). Building on prior research that demonstrated significantly elevated fasciculation rates in patients with ALS versus healthy controls in multiple body regions via MUMRI—e.g. biceps, paraspinals, lower legs—and correlations with surface EMG measures, this study will replicate those imaging parameters under real-world conditions.

In addition to fasciculation frequency and distribution, CARP will also assess intramuscular fat percentage, a known marker of muscle denervation and degeneration. The goal is to determine how scanner make, magnet strength, and practical clinical constraints affect MUMRI's sensitivity and specificity for detecting disease activity, and whether it can become a diagnostic and monitoring tool in everyday neuromuscular clinics.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Professor Andrew Blamire

Ahmad Ilyasa Basheer Ahmad

MBBS (NUMed)

Aetiology of Bone Tumours in Children and Young Adults

Bone tumours in children and young adults, mainly osteosarcoma and Ewing sarcoma, are rare and usually have no known cause. This review examined genes, birth and childhood events, growth patterns, parents' jobs, and environmental exposures. Only a small number of cases are explained by inherited genetic conditions such as TP53 (also called Li-Fraumeni). Faster or greater growth during teenage years is linked to a higher risk of osteosarcoma; Ewing sarcoma does not show a clear link with height. A previous history of certain hernias was slightly more common before Ewing sarcoma. Many suspected causes — including fluoride in drinking water, common childhood infections, and most parents' jobs — lack convincing evidence. Some studies suggest possible links to pesticides or nearby industrial pollution, but results are inconsistent and based on small samples. Overall, there are few clear actions people can take now. Larger studies combining better genetic tests with improved measures of environmental exposure are needed to find causes and guide better prevention efforts.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Richard McNally

Alexandros Valsamis

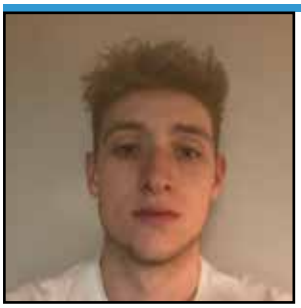
MBiol Biology

Testing AI predicted antimicrobials targeting folate biosynthesis

Wet lab-based work: Lab work was based around the pABA pathway and its inhibition to reduce folic acid biosynthesis in bacteria. Abyssomicin C is a chemical compound which binds to PabB and prevents chorismate binding leading to a disruption in the pABA pathway. The focus of this project was to identify other potential chemical compounds (Tolcapone, Nebicapone, RO 41- 0960) that could reliably replace Abyssomicin C to reduce antibiotic resistance in bacteria. Lab work consisted of several PabB and PabC activity and inhibition (containing the three previously mentioned chemical compound) assays. Assays were transferred into 96-cell well plates to measure their fluorescence intensity. All three compounds revealed significant levels of inhibition with Tolcapone being the highest. Additional work consisted of preparation of buffers, cell transformations, protein purification, collection and expression. Desk based computational work: Molecular docking of the three pABA inhibitors of interest (Tolcapone, Nebicapone, RO 41- 0960).

Funded by: Newcastle University Research Scholarship

Project Supervisor: Professor Paul Race



Alfred Thomas Picton

BEng Hons Mechanical Engineering

Analyses of the effects of bouyant jets on convective heat transfer in a model room

This research focuses on understanding the behaviour of buoyant jets, like hot air or water rising in a room. The simulations were done in a non-dimensional form, which means the results can be applied to many different situations, regardless of specific fluid properties like temperature or density. We used two key factors: the Reynolds number, which compares the fluid's inertial forces (the tendency to keep moving) to its viscous forces (the resistance to flow), and the Grashof number, which compares buoyant forces (like warm air rising) to viscous forces. Using ANSYS Fluent, a powerful simulation software, we modelled a simple room and tested how different fluid conditions affected the jet's behaviour. We also looked at a phenomenon called bifurcation, where a jet splits into multiple smaller jets, which could be important for applications like heating, ventilation, or cooling systems.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Professor Nilanjan Chakraborty

Anesh Tahir

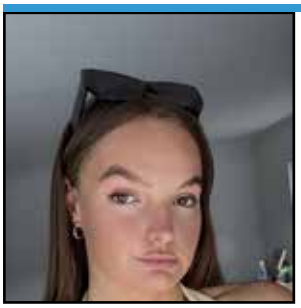
MEng Hons Chemical Engineering

Assessing the Cost of Hydrogen Import vs Local Production in the UK

Hydrogen will play a key role in helping the UK cut emissions and reach net zero by 2050, especially in industries and transport. In the Humber region, one of the country's largest industrial hubs, different supply options have been compared. Producing hydrogen locally from natural gas with carbon capture ("blue hydrogen") is currently the most affordable, costing about £2.5 - 3 per kilogram. Importing hydrogen from East Africa in the form of ammonia and converting it back costs slightly more at £3.5 - 4 per kilogram. Producing it with renewable electricity ("green hydrogen") is the most expensive for now at £4.9 - 6.2 per kilogram. Costs could shift in future: higher gas and carbon prices would make imports or green hydrogen more competitive, while falling renewable electricity prices could bring down the cost of green hydrogen. For now, blue hydrogen is the most cost-effective, but a mix of local production, imports, and policy support will be needed for long-term energy security.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Eni Oko



Antonia Veary

MRes Medical and Molecular Biosciences, intercalating MBBS student

A systematic review of the prevalence of CTE in rugby players

Chronic traumatic encephalopathy (CTE) is a degenerative brain disorder caused by repeated injuries. It presents with variable symptoms, some patients may be almost asymptomatic, some may have severe memory loss, depression, and aggression. This systematic review aimed to explore the prevalence of CTE in rugby players, given the high contact nature of the sport.

Online databases were searched for studies on 'chronic traumatic encephalopathy', 'sports', and 'prevalence', without restrictions on date, language, or location.

Six studies were identified, five of which met inclusion criteria. Findings suggest a high prevalence of CTE in brains of rugby players donated to brain banks, ranging from 50% to 68%. However, this may not represent the wider rugby population, as donations often come from individuals with histories of repeated head injuries or symptoms before death.

Future research should utilise larger brain tissue repositories or clinical cohorts to better determine CTE prevalence among rugby players.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Mr John Harrison and Mr Charalambos Charalambous

Ash Bingham

BA Hons Classical Studies

Guardians of the Sacred: Disparities in the depiction of Greek Priestesses in Art and Literature

Ancient Greek society presents a striking contrast. While Greek women faced severe legal and social restrictions, they simultaneously held positions of religious power as priestesses. This research investigates how different forms of media depicted priestesses and religious authority, exploring whether these representations reveal disparities in how women's religious roles were understood across various contexts.

Through systematic analysis of pottery, sculptures, and a wide range of literary sources, this study identifies three key contrasts in how priestesses were portrayed. Visual media consistently depicted priestesses as competent individuals with harmonious divine relationships and celebrated personal authority. In contrast, literary sources revealed complex realities of divine rejection, political manipulation, and systematic male hypocrisy where men simultaneously depended on women's religious expertise while limiting their authority across society.

This research demonstrates that these contradictions formed a sophisticated system where different media served complementary social functions in negotiating gender, religion and power in classical Greece.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Matthew Haysom

Beth Rogers

MRes Medical and Molecular Biosciences, intercalating MBBS student

A Physiologically Relevent In Vitro Gut Barrier Model

I wanted to find a way to build a more realistic lab model of the human gut, because current models make the cell layers stick together too tightly and so can't model absorption properly. To test this, I grew human gut cells (called Caco-2 cells) and collected mucus from a pig's small intestine. I then separated the mucus using membranes with different pore sizes, which let smaller molecules pass into the surrounding liquid while larger ones were kept inside. After the gut cells had fully grown, I added the mucus to them and measured how easily electricity passed across the cell layer. This test shows how strongly the cells hold together. I found that the resistance dropped in all cells over time, but more in the cells with mucus applied. This suggests that mucus may help control how gut cells stick to one another, and I will investigate this further.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Professor Jeffrey Pearson

David Stevens

MEng Hons Civil and Structural Engineering

Numerical Simulation of Ground Vibration Effects Due to High-Speed Trains

During the student vacationship, the project aim was to use 3D finite element analysis to analyse ground vibrations while accounting for soil degradation due to small strain applications. In the course of the project, I assessed how varying input parameters influenced the performance of soils under dynamic loading. Throughout this experience I developed a basic understanding of constitutive modelling and gained strong skills in the use and scripting of PLAXIS 3D. This process involved comparing vertical displacement outputs with literature to refine the model's accuracy. Through this work, I developed skills in finite element modelling, parameter calibration, and understanding of dynamic soil behaviour. I also gained experience using PLAXIS 3D alongside supporting digital tools for data handling and analysis

Funded by: Developing Excellent Researchers Summer Vacation Scheme

Project Supervisors: Dr Tom Charlton and Professor Mohamed Rouainia

Eleanor Laura Sparke

MPhys Physics with Astrophysics

Optical Fibers for Advanced Temperature and Strain Sensing

We all know of optical fibers' use in telecommunication, but have you ever considered that fibers can also be used as sensors? Shining light into a glass fiber only 125 microns wide, with tiny mirror-like patterns hidden inside its core, illustrates the principle behind a Fiber Bragg Grating (FBG). By "writing" these microscopic patterns using a UV-laser, the fiber is transformed into a sensor that reflects a precise wavelength of light, called the Bragg wavelength.

My project was part of a core research area in our lab, where I explored how the Bragg wavelength shifts under different conditions. I focused on temperature sensing—setting up experiments, collecting data, and analysing how changes in temperature produced measurable wavelength changes, even under extremely cold conditions. Our results highlight the reliable sensitivity of FBGs and their potential as precise sensors, with our team now extending this work to strain sensing and investigating the addition of nanomaterials to further enhance performance.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Sridevi Siddarama and Dr Vasu Kalangi

Elliot Herd

MBBS

'A single-centre, retrospective cohort study of paediatric tinea capitis in the United Kingdom'

Tinea capitis, commonly known as scalp ringworm, is a fungal infection mainly affecting children. It causes itchy, scaly plaques, alopecia, and in more severe cases can develop into kerion—characterized by tender, boggy swellings with pustules.

This study reviewed children treated for tinea capitis at the Great North Children's Hospital in Newcastle-upon-Tyne, during two periods: 2016–2019 and 2022–2025. The number of cases more than doubled, increasing from 32 to 70. Importantly, kerion cases also rose, from 18.8% to 35.7%. The most common causative organism was Trichophyton tonsurans, but a new organism, Trichophyton mentagrophytes, emerged in recent years. We also found that barber associated transmission is now a risk, particularly for older boys, who showed higher kerion rates.

These findings highlight the need for improved awareness, early diagnosis, and prevention strategies among families, schools, and healthcare providers to reduce spread and improve care.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Luke Carson

Ethan Shanks

BA Hons History with Placement

Jewish Impact on the Development of the Team Valley Industrial Estate

The Research of this project aims to reveal the contribution of the Jewish Community to the Northeast region of England often overlooked or unknown by wider society as well as academics. It aims to give awareness to Jewish and non-Jewish individuals of the Jewish heritage and contributions of the Jewish community to the region, focusing on the local Jewish businesses that operated on the Team Valley Industrial Estate, Gateshead and wider Northeast region and how they impacted the region and wider world. The resulted outcomes will give Jewish communities of the Northeast region of England a place and voice within the local history that is unmentioned within the usual narratives. The work will be assisted by Tyne and Wear Archives and their Unlocking Northeast Jewish Heritage Project (UNEJH) to provide archival and primary material for the making of the project and digitisation and preservation of the materials gathered.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Ms Julie Ballands and Mr Bill Griffiths

Fayrouz Maher Kamel Elshenawy

MBBS (NUMed)

Exploring the usability of wearable digital technology to monitor medication adherence and mobility in people with Parkinson's Disease via a survey questionnaire

Parkinson's disease (PD) is a chronic, progressive neurological disorder that impairs movement and often requires carefully timed medication schedules to maintain symptom control. Although drugs such as Levodopa can significantly improve mobility, their effectiveness varies throughout the day, leading to unpredictable symptom fluctuations that disrupt daily life.

Emerging digital health and wearable technologies (DHWT), including smartwatches and body-worn sensors, offer new opportunities to monitor mobility in real time. These tools provide meaningful data on how medication influences movement, supporting patients and clinicians in optimizing treatment decisions.

For these innovations to reach their full potential, they must reflect the real-world needs and preferences of people living with PD. This study explores medication adherence strategies, symptom fluctuation management, and the use of digital reminder technologies through an international survey of individuals with Parkinson's disease. By centering patient perspectives, the research seeks to connect technology with personalized care—paving the way for more responsive and patient-focused PD management.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Silvia Del-Din, Miss Emma Packer and Dr Lisa Alcock

Finlay Cromack

MBBS

Investigating the prevalence and severity of post-burns complications amongst different Fitzpatrick skin types and first aid administrations

Each year, 16,000 people are treated as inpatients for burns injuries in the UK. Common complications of burns include wound infections, raised and uncomfortable (hypertrophic) scars, failed skin grafts, prolonged hospital stays and ICU admissions. Currently, there is little UK-based research on burns outcome variability between different skin colours. Additionally, the correct first aid required in a burn injury is at least 20 minutes of cool running water over the burn site, however this is not always administered. Using the RVI's electronic patient records from the period 2020-2024, my study retrospectively observes any correlation between Fitzpatrick skin type and first aid provision and adverse burns outcomes in all burns inpatients. More broadly, the study comments on the trends in first aid provision in the North East, as well as the demographics of patients who require specialist burn treatment.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Mr Christopher Lewis and Miss Tamara Mertz

Hannah Bevan

BSc Hons Psychology with Professional Placement

Risk factors associated with longitudinal poor health outcomes in Parkinson's Disease

Receiving a diagnosis of Parkinson's Disease (PD) is a reality for a growing number of people in the UK. This research aimed to answer some questions that may cross people's mind after diagnosis. Will this affect my risk of dementia, future living arrangements, or life expectancy?

The ICICLE-PD study investigated people recently diagnosed with Parkinson's Disease over the following ten years. We explored risk factors for dementia, moving to residential care, and death. Risk factors included mood, seeing things that are not there (hallucinations) and medication. A greater risk of developing dementia was associated with experiencing visual hallucinations. Other risk factors like mood and medication were not linked with poor health outcomes at 10 years.

It is important to understand which symptoms or factors are linked to dementia or poor health outcomes in Parkinson's disease. This could help healthcare professionals give more personalised support as Parkinson's progresses.

Funded by: British Psychological Society Undergraduate Research Assisstantship Scheme and Newcastle University Research Scholarship

Project Supervisor: Dr Rachael A Lawson

Harry Peter Abel

MBBS

Enhancing the National Early Warning Score 2 Using Observational Patient Data and Machine Learning

The National Early Warning Score 2 (NEWS2) is widely used across the NHS to identify patients at risk of deterioration. While NEWS2 is effective for 24-hour prediction, its accuracy declines over longer periods and may be less reliable in certain groups, such as older adults.

This project investigated the potential of a machine learning model to enhance NEWS2 by integrating patient observations and additional data, such as age, body mass index (BMI), diastolic blood pressure, and type of oxygen delivery device. The model, trained on anonymised historical patient data from Newcastle Hospitals NHS Foundation Trust, demonstrated promising predictive accuracy.

The main challenge was a high-class imbalance in patient data, which was addressed using categorisation techniques based on clinical relevance. The work highlights the importance of data diversity and collaboration between key stakeholders to ensure both clinical relevance and technical readiness of the model. Further refinement and validation on additional datasets are required to improve model performance and its generalisability across NHS trusts.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Cen Cong and Professor Edward Meinert

Heather McGregor

BSc Hons Mathematics

A Study of Symmetric Unions and the Knot Invariant

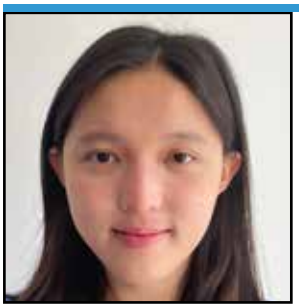
Symmetric unions are structures within knot theory constructed by taking the union of a knot and its mirror image. A knot invariant is a structure which is unchanged when Reidemeister moves are applied to its diagram. This project focused on the 'symmetric' Reidemeister moves coined by Eisermann and Lamm, and their on and off-axis variations.

Drawing on previous research by Eisermann and Lamm, Louis Kauffman, and Morwen Thistlethwaite, this project aimed to examine possibilities of invariants on the symmetric union. The bulk of the research was carried out by examining patterns that emerge when deconstructing a knot to its set of spanning trees. Candidates for invariance were, for example, the number of symmetric spanning trees a particular knot had and the sum of signs of edges both on and off-axis.

Research to identify an invariant will continue with an examination of Betti numbers and quotients of spanning trees.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr William Rushworth



Hoiling Tang

BSc Hons Biomedical Sciences

Investigating the significance of apicoplast RNA polymerase gene duplications in Malaria through immunofluorescence microscopy

Malaria is a serious parasitic infection mainly caused by *Plasmodium falciparum*. The growing challenges of drug resistance highlight the urgent need to identify new therapeutic targets beyond those used in current treatments. One promising area is the apicoplast, a specific organelle present in *P. falciparum* but absent in humans, making it an attractive drug target. The apicoplast carries its own genes, including duplicated RNA polymerase alpha subunits, which are thought to play an essential role in parasite survival.

This project aimed to provide initial insights into the localisation of the duplicated alpha subunits. Both immunofluorescence microscopy and SDS-PAGE analysis were performed. Although the SDS-PAGE analysis was not as expected, immunofluorescence microscopy revealed weak signals in the samples compared with the negative controls. These findings suggest possible localisation of the duplicated alpha subunits in the apicoplast, supporting their potential as valuable targets for future drug development.

Funded by: Developing Excellent Researchers Summer Vacation Scheme

Project Supervisor: Dr Nick Bailey

Jason Chong Kah Chye

BSc Hons Biomedical Science (NUMed)

Molecular determinants of childhood high-grade B-cell non-Hodgkin lymphomas

Childhood B-cell non-Hodgkin lymphomas (B-NHLs) are aggressive blood cancers treated with intensive chemotherapy. While cure rates are high, distinguishing between subtypes remains difficult. Historically, this area has been overlooked since all children received similar therapy and seemed to have good outcomes. However, growing insights into their biology highlight the need for more precise molecular diagnostic classification for these lymphomas.

Within this project, clinical, pathological, and genetic data were integrated to provide a comprehensive analysis of “hard-to-classify” B-NHLs. Complementing other recently published data, we believe that this project will help form the basis for a consensus on the minimal molecular diagnostic dataset required to allow accurate diagnosis. Although no single approach fits all cases, incorporating molecular data may still be important as it encourages clinicians to move towards more precise treatment strategies that target specific pathways in the pathogenesis of B-NHLs

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Simon Bomken

Joshua Foxton

MPhys Physics with Honours

Hydrodynamic Ion Transport in 2D Nanochannels

Imagine the flow of liquid through a hose that is a hundred-thousand times thinner than a human hair. How would it flow? Would it behave the way physics predicts? This was the question my summer project aimed to adress.

I studied the flow of liquids through a nanoscale device with tiny channels made of atomically thin two-dimensional materials. To measure this flow, a special setup with two-chambers was used: one with salt water (calcium chloride), and the other with flourescent dye that lights up when met with calcium ions.

A pressure and concentration gradient across the channel would cause the salt to flow into the dye chamber, reacting with the dye and increasing its glow. By measuring the glows intensity, I studied how the liquid flowed and compared it with theoretical predictions.

This research could help make better water filters or desalination systems, cleaning water using much less energy.

Funded by: School of Mathematics, Statistics and Physics

Project Supervisors: Dr Vasu Kalangi and Dr Sridevi Siddarama

Justin Lee Yung Jian

BSc Hons Biomedical Science (NUMed)

Characterisation of new virulence factors specific to multidrug-resistant uropathogenic Escherichia coli (UPEC)

This project investigated two newly discovered serine protease autotransporter (named 4611 and 4614) in *uropathogenic Escherichia coli (*UPEC), which is a major cause of urinary tract infection. The aim was to determine whether these autotransporter provide any fitness advantage during an infection, either through survival in host environment or by contributing to pathogenesis. 3 main experiments were carried out: biofilm assay, to test whether they help UPEC form protective bacterial communities; serum killing assay, to determine if they aid resistance against the human immune system; and mucin cleavage assay, to assess whether they can break down mucus, a natural protective barrier in the body. Results showed that these virulence factors did not influence biofilm formation or resistance to human serum. However, 4614 autotransporter was able to cleave mucin, suggesting a potential role in helping UPEC invade host tissues. This activity appears linked to infection rather than growth, suggesting an important role in UPEC pathogenesis.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Curtis Cottam

Kathryn Smith

BA Hons Geography

The Intersectional Identities of Queer Creatives in Newcastle

Intersectionality is an approach that recognises identity is not singular. Human identity is complex and multifaceted; shaped by multiple, simultaneous characteristics that can evolve over time and cannot be viewed or understood in isolation. I use the term 'queer' as a reclaimed umbrella term to describe fluid sexuality and gender. 'Creatives' refers broadly to anyone in the creative arts industry such as performers or facilitators.

The aim was to explore how queer creatives in Newcastle perform and express elements of their identity, their queer intersectional experience, and what the queer creative scene feels like in Newcastle. Case study interviews of a singer/songwriter, a poet and facilitator, and a cabaret artist were used to explore these questions.

Through a thematic analysis, I identified common themes of: lack of diversity and representation, the multiplicity and complexity of performances, shared in-group understandings, physical appearance, the influence of alcohol, and the 'fringe'.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Josep Almudever Chanza

Kate Eley

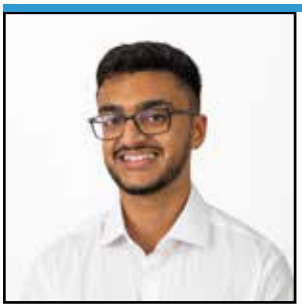
BSc Hons Pharmacology

Development and optimisation of a liquid chromatography-mass spectrometry assay for the qauntification of fludarabine in human Cerebrospinal Fluid (CSF)

Fludarabine is a chemotherapy drug used to prepare patients for CAR-T cell therapy and stem cell transplantation. In children, the amount of fludarabine in important; too little may cause disease relapse, and too much can cause toxicity, including severe neurotoxicity. CAR-T cell therapy is being explored for brain tumours, but it is not clear how well fludarabine enters the cerebrospinal fluid (CSF), that surrounds the brain and spinal cord. Studying this is difficult, because human CSF is hard to get and artificial CSF is not suitable for analytical equipment. This project aimed to develop a method for measuring fludarabine in CSF. This could help us understand fludarabine related neurotoxicity and define the levels patients need for CAR-T cell therapy in brain tumours. It found that human plasma diluted 1:200 in water could be used as a substitute to CSF. This new method was sensitive and accurately measured fludarabine in CSF.

Funded by: British Pharmacological Society and Newcastle University Research Scholarship

Project Supervisors: Professor Gareth Veal and Dr Shelby Barnett



Kieran Gill

MBBS

Cognitive function in older adults with myocardial infarction

We focused on older adults (75 years of age or older) admitted to hospital with non-ST-segment elevation myocardial infarction (NSTEMI). This is the most common type of heart attack in older adults. Older adults are less likely to receive an invasive treatment to unblock the heart arteries compared to younger adults. It is unclear whether normal cognitive function should guide whether older adults receive an invasive treatment strategy to unblock the heart arteries, or a conservative strategy of medications alone.

We utilised data from the SENIOR-RITA trial, which recruited 1518 patients with NSTEMI from 48 NHS hospitals. Among 546 patients with normal cognition, we discovered that an invasive treatment strategy did not reduce the risk of cardiovascular death, or future heart attacks, compared to a strategy of medications alone. Therefore, a strategy of medications alone may be reasonable for older adults with NSTEMI and normal cognition.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Professor Vijay Kunadian

Laurence Breen

BSc Marketing

Assessing the effects of Brexit on British Artists in European Music Festivals

Through my research I explore how Brexit has impacted British Musicians ability to perform and integrate within Europe. This research was conducted through quantitative comparison of thousands of artist nationalities, looking at lineups for festivals throughout Europe, comparing the distribution and quantity of British acts in each year pre and post Brexit. Due to COVID-19's similar timing to Brexit, research on the US festival Coachella was conducted to be utilised as a control variable. It was clear that no comprehensive data already existed to a high standard prior to this research, which highlighted just how overlooked these challenges in the creative sector have been. Through this project, I hope to have shed light on the creative industry, a core area of human culture that often gets overshadowed in policy discussions. Rather than framing it as less important, I wanted to highlight that it deserves equal consideration alongside other sectors.

Funded by: Developing Excellent Researchers Summer Vacation Scheme

Project Supervisor: Dr Daniel Simandjuntak

Leah Kelly

MSci Biomedical Sciences

Detection of GD_2 negative cells in bone marrow from patients with high-risk neuroblastoma using machine learning

Neuroblastoma (NB) is the most common childhood extracranial solid tumour and one of the most difficult childhood cancers to cure. A treatment given to many patients with high-risk neuroblastoma (metastatic disease in a patient > 1 year) is anti-GD_2 immunotherapy.

Neuroblastoma often metastasises to bone marrow which is sampled in all patients at diagnosis and relapse. In a previous study, matched blood and bone marrow samples were collected from NB patients to detect GD_2+ve/CD45-ve neuroblastoma circulating tumour cells from blood and disseminated tumour cells (DTCs) from bone marrow (BM) using an instrument called an ImageStream Imaging Flow Cytometer.

Using the data acquired by the ImageStream, using a machine learning algorithm, this study demonstrated additional GD_2 negative DTCs could be detected in high-risk NB patients. This method may be useful for detecting GD_2 loss following anti-GD_2 immunotherapy, however a larger cohort of patients should be studied to confirm clinical significance.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Professor Deborah Tweddle, Dr David Jamieson and Dr Marina Danilenko

Lee Chak Hei Jeremey

MBBS

Shape Memory Alloy Compositing using Gallium-gold putty for use in medical implants

Low melting point metals such as gallium have been of interest to the robotics and medical device sphere. I have proposed using an inert filler mixed with a gallium-gold alloy to create a composite material that would be morphable only above 60°C then combining it with a shape memory material to create a selectively compressible biocompatible material. With the support of my supervisor Jennifer Olsen and the glassblowing workshop, I have created a protocol in creating the novel gold-gallium alloy. Due to difficulties with the gallium adhering to Teflon tubing, I could not create the alloy with the desired composition. I have since redesigned the protocol to exclude oxygen from the sample during sample preparation to avoid gallium adherence to containers using an oxygen and moisture free environment. Looking forward, I will used the redesigned protocol to attempt creating the alloy and thus progressing in creating the composite.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Jennifer Olsen

Lucy Bulmer

MBBS

The Perceived Impact of Financial Constraints on Academic Performance Among Medical Students

In 2024, the British Medical Association found that 43% of medical students had considered leaving their course due to financial pressures. Few studies, however, have examined how those who remain in medicine manage the academic demands alongside such financial hardship. This study explored the perceived impact of financial constraints on the academic performance of medical students in Years 3 -5 at Newcastle University.

The findings suggest that financial stress can impact students across all backgrounds, influencing concentration, exam outcomes, and access to academic opportunities. Notably, 62% reported that finances limited their ability to engage in academics and extracurriculars. Coping strategies varied; students with family support, bursaries, or flexible work reported greater stability, while others described skipping meals, working long hours, or resitting exams.

This research highlights financial stress as an academic issue and calls for targeted institutional support, flexible work opportunities, and policy changes to promote equity in medical education.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Rebecca Holdsworth and Dr Alison Graham

Mollie O'Connor

BSc Hons Psychology with Professional Placement

Why Students use AI: Exploring the Motivating Factors in Students' use of Large Language Models (LLMs)

Access to large language models (LLMs) has proliferated, providing sophisticated tools capable of simulating detailed and accurate conversations (e.g., ChatGPT). Recent reports suggest university students' adoption of LLMs may be driven by feelings of uncertainty, with social anxieties uniquely predicting problematic use of AI, contributing to an overreliance on these tools during their education. Despite substantial anecdotal and qualitative research on the reasons students use LLMs, there are limited quantitative measures which can reliability assess these motivations. Thus, this project developed a questionnaire capturing why students use LLMs, with 4 major factors emerging at this stage: Mental Health/Socialisation, Study Aid, Perceived Effectiveness and Hedonistic Motivation. It is vital to understand how students use these tools to best inform implementation of AI into educational, professional, and mental health practices and understanding the factors which promote use of LLMs can inform our understanding of the risk factors for AI dependence.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Zachary Petzel

Monica Olamide Ogunbowale

Master of Pharmacy with Honours

How Temperature Changes Affect Supersaturation and Crystallisation in Xanthine Drugs?

Many medicines do not dissolve well in water, which makes it harder for the body to absorb them and limits how well they work. One way to improve this is by creating a "supersaturated" solution, where more drug is dissolved than would normally be possible. While this can help with absorption, it also increases the chance that the drug will crystallise out of solution too quickly, reducing its effectiveness.

In this project, I studied three common drugs from the xanthine family — theophylline, allopurinol, and caffeine — to see how changes in temperature affect supersaturation and the time it takes for crystals to appear. I found that higher supersaturation led to much faster crystallisation in theophylline and allopurinol, while results with caffeine were less clear. These findings help us understand how drug structure influences stability, and they may support the design of more reliable medicines in the future.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Oisín Kavanagh

Muhammad Mustafa Khwaja

MBBS (NUMed)

Engineering an Protein Aggregate Model to Study Autophagy Pathways in Human Cells

Over six weeks, I carried out a research project exploring how autophagy in human young fibroblast works and how these cells handle harmful protein clumps that cause neurodegenerative diseases such as Parkinson's and ALS. In the beginning I familiarised myself with the lab, learning the basics of tissue culture and how to handle cells safely additionally also understanding the health and safety regulations required in a lab. I then helped introduce special genetic systems into fibroblasts that allow us to "switch on" proteins known to form aggregates, using a lentivirus. To make sure only the cells carrying our system survived, I created antibiotic selection experiments (kill curves). Once the cells were established, I observed the formation of protein aggregates after adding doxycycline, and used aggresome staining to visualise these clumps under the microscope. These experiments gave me first-hand experience in how researchers model disease in the lab, while also teaching me the importance of careful optimisation at every stage of the process while also creating a system that can be used for further advanced research.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Professor Viktor Korolchuk

Nashwa Mahmood Kirmani

MBBS (NUMed)

Neuronal Activation in Mouse Motor Cortex Following Directional Low-Frequency Electrical Stimulation

Seizures are caused by dysregulated brain circuits causing uncontrolled motor activity. With a chronic seizure disorder like epilepsy, medications aren't always effective or well tolerated and current neurostimulation treatments lack precision which affects large brain areas and causing side effects like speech and spatial impairment.

To begin developing effective treatments, it's crucial to determine how neurones respond to directional electric stimulation. For my project, I investigated how neurones harvested from mice motor cortices respond to directional low-frequency electric fields.

Slices from a wild-type male mouse were stored in artificial cerebrospinal fluid and stimulated with pharmacological agents to mimic neural activity seen in epilepsy. An electrode was then used to stimulate the brain slice in the horizontal and vertical direction. To visualise the pathways that were the most affected by electrophysiological stimulation, the c-Fos antibody marker was used in immunohistochemistry to identify electrically activated cells under fluorescence microscopy.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Professor Andrew Jackson, Dr Bethany Dennis and Dr Fiona LeBeau

Natasha Sumpner

MSci Biochemistry

Encapsulins

Bacterial cells require compartments, almost like boxes, to store molecules needed for their survival. Iron, for example, is a reactive element, which would otherwise damage the cell components and DNA, if left floating around inside the bacterial cell. Therefore, bacterial boxes like encapsulins, are required for a safe and protected environment to store iron.

Encapsulins are a type of compartment, which are hollow and football shaped, and are used by some bacteria to store iron. Since their accidental discovery, encapsulins have been the focus of research looking at their future use in vaccines, in which they would transport vaccine material inside cells. Furthermore, encapsulins could enhance imaging inside cells, if they were to hold contrast agents.

This project built on previous research at Newcastle University, to produce further visualisations of encapsulins. To achieve this, separation techniques such as chromatography were used, before encapsulin shells were imaged by transmission electron microscopy.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Jon Marles-Wright

Neave Woollam

BSc Hons Psychology with Professional Placement

Imaging Lithium in Alzheimer's Disease

Lithium is an effective medication in bipolar disorder and there is growing evidence it protects the brain against the damaging effects of illness. Because of this neuroprotective action at low doses, lthium is being investigated as a treatment for Alzheimer's disease. It is now possible to directly measure the distribution of lithium in the brain using advanced magnetic resonance imaging (^{7}Li-MRI) which has identified brain areas where lithium may preferentially act in bipolar disorder. It is not known if lithium acts in different parts of the brain in Alzheimer's disease, nor if it can be detected in the brain at these lower doses.

This project assessed the feasbility of using ^{7}Li-MRI to measure the lithium signal intensity and regional brain distribution following low dose lithium in patients with Alzheimer's disease, compared to age-matched controls. The recruitment rates, protocol tolerability, and optimisation of image analysis methods will guide future treatment trials.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr David Cousins and Dr Victoria Wing

Osama Ihab Ibrahim Eliwa

MBBS (NUMed)

Perceptions of Beetroot Juice as a Supplement for Peripheral Arterial Disease: A Clinician Survey

Peripheral Arterial Disease (PAD) is a vascular condition that restricts blood flow to the limbs, often causing pain and reduced mobility. Beetroot juice, rich in dietary nitrate, has been studied for its potential to improve blood flow through nitric oxide–mediated vasodilation. However, the success of introducing such nutritional interventions also depends on clinicians' awareness, perceptions, and acceptance.

This project aimed to explore healthcare professionals' views and perceived barriers to using beetroot juice as a supplement for PAD management. My role involved designing and building an online survey to collect responses from clinicians, analysing their perceptions, and identifying factors that may influence the clinical adoption of this intervention. The findings will inform strategies for integrating evidence-based dietary approaches into vascular care.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Sandip Nandhra

Othman Zuhir

MBBS (NUMed)

Lived Experiences of Typically Developing Adolescents with Siblings Diagnosed with Autism Spectrum Disorder in Malaysia

This study explores the lived experiences of Malaysian adolescents who have siblings with autism. While families often focus on supporting the child with autism, the perspectives of their siblings are rarely heard. Three adolescents have been interviewed in depth about their daily lives. Early insights suggest that siblings frequently take on additional responsibilities, such as helping with caregiving, balancing schoolwork with family duties, and maintaining vigilance to ensure their sibling's safety. They also describe how their parents' health and stress can shape their own roles within the household. These experiences highlight both the challenges faced and the resilience developed by siblings, including emotion regulation and positive reframing. By amplifying their voices, this research aims to contribute to the development of culturally inclusive support strategies, empower an underrepresented group, and inform future advocacy and policy efforts to strengthen autism awareness and family support in Malaysia.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Ma Brenda Pancho

Pooja Chandran

MBBS (NUMed)

Implicit and Explicit Facial Bias in Healthcare: An IAT Study of Clinicians and Patient-Reported QoL After Facial Reconstruction

Facial bias in healthcare is a measurable problem: patients with visible facial differences are treated differently in triage, interactions, and prioritisation. IATs and behavioural studies show implicit preference for "typical" faces and negative ratings of anomalous faces on warmth, honesty, and threat—biases that shape clinical judgments.

Reconstructive facial surgery, by contrast, is associated with improved quality of life, including better physical functioning, social comfort, wellbeing, and reduced stigma. These findings suggest surgery influences both lived experience and how patients are perceived.

My research examines this link by developing two IATs—one for medical doctors and students, another for mental-health professionals—to measure clinician implicit bias, alongside surveys capturing clinical decision patterns. In parallel, I am creating a patient survey to assess pre- and post-surgery quality-of-life change. Together, these datasets will help elucidate how facial appearance relates to healthcare behaviour and outcomes, and can be used to guide future research and the design of targeted interventions to reduce bias and promote equitable care.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Franziska Hartung

Raina Singla

MBBS (NUMed)

Latent Factors Underlying Lewy Body Disease

Lewy body diseases (LBD) comprise of a spectrum of disorders, including Parkinson's disease, dementia with Lewy bodies, and Parkinson's disease dementia. LBD affects both motor and cognitive function, often leading to a reduced quality of life. Depression is a common symptom in individuals with LBD and may serve as an early indicator of dementia. The Geriatric Depression Scale (GDS) is frequently used to detect depression; however, its validity and reliability in LBD populations may be limited due to overlapping symptoms of dementia and depression, such as fatigue, anxiety, and apathy.

This study sought to examine the relationship and underlying factor structure between GDS scores and dementia-related symptoms. A clearer understanding of this relationship may support more accurate diagnosis and management of depression in individuals with LBD, ultimately contributing to improved quality of life.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Laura Wright

Reece Browne

MBBS

Investigating Neutrophil Plasticity in Circulation: An analysis of Phenotypic Differentiation in Response to Sepsis Patient Serum

Sepsis is a life-threatening condition in which the immune system initially overreacts to infection before becoming suppressed. Immune cells called myeloid-derived suppressor cells (MDSCs) are thought to play a role in this suppressed state, but it is unclear how they arise. In this study, we tested whether a group of mature immune cells called mononuclear cells could change into MDSC-like cells. Blood from seven healthy volunteers was taken, the mononuclear cells were extracted and these were grown in a variety of conditions to simulate sepsis. After six days, we analysed proteins on the cells, comparing them with cells taken from critically ill sepsis patients. While the small number of samples meant that firm conclusions could not be drawn, early results suggest circulating immune cells can adapt in response to sepsis. These preliminary findings support the need for larger studies to determine whether such changes could help guide diagnosis or treatment.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Tom Hellyer

Reema Haifa Hameed Sulthan

MBBS

Clozapine Therapy Optimisation: A Comprehensive Review of its Pharmacokinetics to Guide Modelling Strategies

Clozapine is the drug of choice for treatment-resistant schizophrenia. However, the level of clozapine in the body varies significantly among individuals, even at the same dosage. This underscores the importance of understanding the factors that influence how the drug is absorbed and utilized. During this scholarship, I extensively studied how the body processes the drug and reviewed various dosing models aimed at customizing doses for each patient. I also gained skills in Structured Query Language (SQL) to analyse a clinical database, extracting data on patients treated with clozapine to support future pharmacokinetic modelling. In addition, I explored how clozapine dissolves in the stomach, focusing on how proton pump inhibitors (PPIs), by affecting gastric pH, might alter clozapine absorption. This involved participating in laboratory experiments to generate a solubility curve and conducting a thorough literature review. I then drafted an article synthesising these findings and began developing my final poster presentation.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Victoria Wing and Dr Oisín N Kavanagh

Sadif Rahman

BA Hons English Language and Literature

The Syntax of Codeswitching in the Bangla Verbal Domain

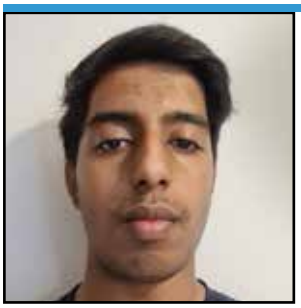
Mixing Bangla and English, or codeswitching, is an everyday behaviour in Dhaka. Sociolinguistic interviews and a judgement task conducted with 8 young *Dhakaiyya* found that societal pressures against "Banglish" are weaker than claimed in previous literature. We also found that Banglish uses grammatical structures distinct from both English and Bangla. While English typically uses 'simplex' verbs, Bangla typically uses a vector verb like *kora* 'to do' with a coverb to specify the action. However, Banglish uses an English coverb plus *kora* plus a Bangla 'light' verb (1; also Chatterjee 2012):

(1). Subject Adverbial **Coverb Vector verb** **Light verb**
Skillset o **match korte** **hobe**
Skillset as-well **match do.INF happen.FUT.3sg**
"The skillset **must match** as well."

Our data also confirms that English simplex verbs cannot be inflected with Bangla morphology. In sum, Banglish has a unique grammar and is socially important for young Bangladeshis.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Rebecca Woods



Sahas Talasila

BEng Hons Electronics and Computer Engineering

ECLIPSE -- Event-driven Crisis Learning and Intelligent Prediction with Simulated Events and Interpretable AI

During the summer I was tasked with helping my supervisors define their vision for a project. The aim of the project was to use graph/tree theory to convert financial data into a new, easy to understand data structure for financial analysis. This has been successfully completed, so we also came up with an analysis method, which allows a user to select any given point and then see what trends that point is a part of, (upward and downward trends etc.). Our new goal is to obtain trend analysis data for each point in a time series chart and then feed this input into a machine learning model.

Funded by: Developing Excellent Researchers Summer Vacation scheme

Project Supervisors: Dr Alex Chan and Mr Tousif Rahman

Sam Barrow

MBBS

Utilising multiplex long-read sequencing as a cost-efficient approach to detecting complex genomic variants in acute lymphoblastic leukaemia.

Cancer is driven by errors in genetic code, with many childhood cancers being associated with specific genetic abnormalities. Identification of these abnormalities is crucial in guiding treatment decisions and improving outcomes. Current techniques to identify these abnormalities, such as whole genome sequencing, are time-consuming and expensive. We developed a protocol which uses nanopore sequencing technologies to simultaneously screen multiple patient samples for key genomic markers. Our aim was to evaluate the viability of this protocol as a diagnostic tool.

We completed 37 short-read genome sequencing experiments, screening 407 patient DNA samples. We consistently identified the presence or absence of key genetic markers across a range of childhood malignancies, including rare subtypes of leukaemia.

Our project demonstrates the viability of sequencing multiple samples simultaneously. This technique could improve cost and time-efficiency in both diagnostic and research settings. Work is ongoing to publish our findings on the effectiveness of this protocol.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Sarra Ryan

Sewmini Abeysundara

MBBS (NUMed)

Interrogation of RIPK1-MK2-HSP27 in regulation of androgen receptor signalling.

Prostate cancer is the most commonly diagnosed cancer in men, with about 1 in 8 developing the disease during their lifetime. Current therapies focus on targeting the androgen receptor, as this steroid receptor drives tumour growth and survival. Unfortunately, many patients relapse over time, creating a need for alternative treatment approaches. RIPK1, a kinase, has been identified as a potential new therapeutic target.

In this project, my role involved performing Western blots to investigate the role of RIPK1 and related molecules in prostate cancer. Our results showed that MK2 inhibition reduced HSP27 nuclear localisation and p-MK2 levels, supporting MK2's role in activating HSP27. Proteasomal inhibition with MG132 restored both p-MK2 and RIPK1 under inhibitory conditions, suggesting proteasomal turnover. Treatment with J2, an HSP27 inhibitor, decreased RIPK1, indicating a positive correlation between HSP27 and RIPK1. These findings highlight MK2, HSP27, and RIPK1 as potential therapeutic targets in rapid AR signalling.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Kelly Coffey

Shi Yuan Ng

BSc Hons Biochemistry

Uncovering the key steps for GALK1 allosteric inhibition

Classic galactosaemia is a rare metabolic disorder caused by a deficiency in galactose-1-phosphate uridylyltransferase, leading to the toxic accumulation of galactose-1-phosphate. Inhibiting galactokinase 1 (GALK1)—the upstream enzyme that converts galactose into galactose-1-phosphate — could potentially reduce this accumulation. Previous research has found that GALK1 can be inhibited via an allosteric site. However, the precise mode of action is still unclear.

My project aimed to determine the effect of 5 allosteric site mutations on GALK1 structure and function. The kinase activity of the variants was screened with Kinase Glo assay and the protein stability and folding were also measured with NanoDSF. Despite no significant effect on the kinase activity, a reduction in protein stability was oberserved for all variants. All variants crystallised and data was collected at medium resolution. I have solved one of the variants' structure and we found the overall structure is in agreement with the AlphaFold model.

Funded by: Developing Excellent Researchers Summer Vacation scheme

Project Supervisors: Dr Paola Lanzoni-Mangutchi and Professor Wyatt Yue

Sylvie Beckett

BA Hons Philosophy

The Outmost Light: The ethical-aesthetic problem of divine inspiration in English neofolk music

This project explores neofolk (a genre of experimental music aiming to rediscover traditional folk mythologies within contemporary liberal society) through Simone Weil's ethical and aesthetic philosophy of attention and decreation. I focus on two neofolk projects in particular – Current 93 and Death in June – insofar as they each offer a voice to many minority faiths within twenty-first century Britain (predominantly paganism, heretical Christianity, and Vajrayana Buddhism). According to Weil, proper aesthetic practice should be a self-sacrifice that mirrors God's incarnation in Christ; art which prioritises God's inconceivability over a degraded idea of the self may "bridge" the divide between the human and the divine. From this, I unfold neofolk's relation to community formation, questioning its tendency towards reactionary and fascistic politics. I conclude that neofolk, understood through Weil, should come from spontaneous inspiration in passive contemplation of the divine, which many neofolk bands corrupt through their preoccupation with extremist politics.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Adam Potts

Tess Baker

MChem with Honours in Medicinal Chemistry

Development of a Stereodivergent Route to Glycosylated Amino Acids

Glycosylation is the covalent attachment of a sugar molecule to a lipid or protein, typically occurring through a nitrogen or oxygen atom. Despite its crucial role in biological systems, protein glycosylation remains poorly understood.

Research by the McAllister Group investigated a synthesis route for producing O-glycosylated amino acids. They examined how reaction time influences the stereochemistry of the glycosidic bond, resulting in either an alpha or beta linkage between the sugar and amino acid. Expanding on this, I investigated how altering the stereochemistry of the starting amino acid affects this synthetic route. I synthesised both L and D isomers of Fmoc Serine Methyl Ester and Fmoc Threonine Methyl Ester for use in glycosylation reactions. Analytical methods including NMR and LCMS were used to determine the stereochemistry of the final glycosylated products, finding the initial stereochemistry of the amino acid did not affect the glycosidic bond's orientation, but reaction time did.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Tom McAllister and Dr Felicity Frank

Valeria Fernandes Bomba

BSc Theoretical Physics

Unveiling the Potential of Two-Dimensional Perovskites for Future Technologies

Imagine a world where communication is unbreakable, and computers can solve calculations beyond current limits. Quantum technologies could make this future a reality through advanced materials such as atomically thin two-dimensional structures, the most well-known example being graphene, which has already revolutionised nanotechnology as we know it.

The aim of this project was to explore 2D perovskites, a class of materials with remarkable optical and electronic properties that, unlike their 3D counterparts, offer enhanced stability and tunability. A major challenge in working with 2D perovskites lies in their rapid degradation mechanisms, which are further accelerated under environmental conditions such as moisture, oxygen, and illumination.

In this project I have produced and studied these materials, investigating their structure and durability. Using characterisation techniques, I explored how to optimise these materials for future technologies by testing the hypothesis that they naturally form a protective surface layer that slows degradation, encapsulating the flakes.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Aleksey Kozikov

William Carter

MSci Biomedical Sciences

Bridging the gap between preclinical and personalised medicine: kinase inhibitor response in a prostate cancer tissue slice model

The Androgen Receptor (AR) signalling pathway helps to maintain normal prostate function, however in Prostate Cancer (PC) it becomes overactive via several different mechanisms, driving cancer growth. The standard treatment for PC is androgen deprivation therapy (ADT), however not all patients respond to this. My project investigated targeting kinases which act as molecular switches in the cell to 'switch on' the AR pathway independently of androgen binding its receptor (targeted by ADT). Drugs targeting these particular kinases are already available, however not every kinase will be active in each patient. My project cultured live prostate tissue biopsies, treated with kinase inhibiting drugs to detect signals produced by the cells, telling us if the drug works for that specific patient. This approach allowed us to investigate how these drugs might help PC patients, with the eventual goal of developing a test to predict patient response to these drugs.

Funded by: Developing Excellent Researchers Summer Vacation scheme

Project Supervisor: Dr Emma Lishman-Walker

Win Hay Mar

MBBS (NUMed)

Ultrasound-paired Surface Electromyography as a Non-invasive Tool to Assess Muscle Structure and Function

Neuromuscular disorders are conditions that affect muscles or nerves leading to progressive loss of movement and function. Delayed diagnosis makes prognosis worse, while early detection is key. A safe, simple, and comfortable tool could allow patients for quicker diagnosis, more effective care and better quality of life.

As people age, muscles mass and performance decline naturally. We studied this using surface electromyography (to measure muscle electrical activity) together with ultrasound (to see muscle movement) while stimulating a nerve. The nerve and the muscle it activates are called a motor unit. We tested on three muscle groups with their corresponding nerves in each participant.

Our findings from preliminary analysis of comparing older and younger participants, suggest that muscle structure and function change with age. All participants found the test tolerable with no one dropping out. With further research, this combined technique could become a comfortable diagnostic tool for neuromuscular disorders.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Helen Devine, Dr James Scott and Dr Stuart Maitland

Yew Jing Fei

MBBS (NUMed)

Resistance Exercise Training in Myotonic Dystrophy Type 1

Myotonic Dystrophy Type 1 (DM1) is an autosomal dominant disorder that has a prevalence of 9.27 cases in 100,000 people worldwide. This disorder does not only affect the musculoskeletal system, it also has detrimental effects on the visual, cardiovascular, respiratory systems and many more. People with DM1 mainly suffer from myotonia, which is the stiffening of muscles.

This study aimed to explore the relationship between exercise and muscles of patients with DM1 at a cellular level. A resistance exercise training program was designed for patients who were peviously diagnosed with DM1, and their skeletal muscle biopsies from before and after the program were taken. These samples were stained with immunofluorescence with different proteins to observe the changes induced by the exercise training program.

As exercise training programs can be cost-effective and accessible, future research can be steered towards this direction at improving the symptoms of people with DM1.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Valeria Di Leo

Yousra Khalid Ahmed Ali
MBBS (NUMed)

Disrupting transcription factor binding sites within *CCND1* gene body and the impact on gene expression

Mantle cell lymphoma is a type of blood cancer that affects white blood cells. Research has found the proto-oncogene *CCND1* to be linked to the development of this disease. The role of transcription factor binding sites within DNA and whether they play a part in *CCND1* activity remains unclear. Transcription factors are essentially proteins that bind to specific sites within DNA, these sites are critical in the regulation of genes. They determine whether genes are turned on or off. We have identified accessible transcription factor binding sites within the *CCND1* gene body for potential targeting. We aim to disrupt these sites, to test their significance in regulating *CCND1* expression and further contributing to biomarker studies and potential therapeutics. Using gene editing tool CRISPR cas9 to test the theory and detect the change in expression of *CCND1* gene. Results of this experiment will guide to a better understanding of the epigenetics of *CCND1* in cancer development.

Funded by: Newcastle University Research Scholarship

Project Supervisor: Dr Lisa Russell

Muzuki Ueda and Tom Adamson
MRes Neuroscience and MBBS

Developing the evidence base for the specialised foundation programme: a mixed methods study

What is the problem?

The number of doctors who do research is falling. One route into this career is the Specialised Foundation Programme (SFP). The SFP allows new doctors to do research alongside their medical training.

Medical students used to be selected for the SFP by a competitive process. Recently, this has changed. Since 2024, students rank their job preferences, then a computer system assigns them a job.
There is worry that this change could make it harder for students who really want to do research to get an SFP.

What did we try to do?

Our research aimed to understand the strengths and weaknesses of the new SFP selection system and how it affects medical students' future careers.

How did we do it?

We interviewed 16 final-year medical students across England. They shared their experiences of the SFP selection system and how the changes may impact their career plans.

What did we find out?

Students felt that the new system gave them less control over where they work and what jobs they get. Some thought it was fairer, but many felt it did not value their hard work and achievements.

Most students still want to do research, but the sudden changes have made them more careful about career planning. They feel it now takes more effort to do research as a doctor.

What will we do next?

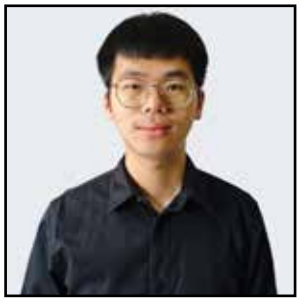
We will share our findings with the people in charge of the SFP recruitment to help improve the selection process.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Hannah Gillespie, Professor Gillian Vance, Dr Megan Brown, Dr Robbie Bain and Dr Steven Brown

Ong Paul Sherng and Lim Xin Yan
MBBS (NUMed)

Development and Evaluation of Prototype Transdisciplinary Biophysical 3D Visualisation Resources for Enhancing Medical and Physics Interprofessional Student Learning



This research project investigates how interprofessional learning, where students from different academic backgrounds collaborate, can be enhanced through hands-on simulation using 3D printed anatomical models. Our aim was to bridge the gap between theoretical knowledge and practical understanding by fostering teamwork between medical and physics students.

We designed and developed prototype models to simulate key physiological and diagnostic processes. One module focused on knee ligament injuries, where students applied mechanical principles such as torque, impulse, and stress-strain analysis to understand ligament failure. Using 3D printed joints, they visualized how forces affect anatomical structures and discussed implications for injury and clinical decision-making.

Another module simulated bone density assessment using dual-energy X-ray absorptiometry (DEXA) in osteoporosis. Here, 3D printed femurs and coloured lasers represented X-ray beams, allowing students to explore electromagnetic principles, radiation safety, and the clinical relevance of imaging results. This hands-on approach linked physics theory with medical diagnostics in a tangible, engaging format.

These tactile models encouraged active engagement, spatial reasoning, and collaborative problem-solving. Students gathered around the models, pointed to structures, and exchanged insights, behaviours that digital tools often limit. The physicality of the 3D printed models fostered mutual learning and interdisciplinary discussion.

Our findings suggest that 3D printed simulations not only improve engagement and retention but also cultivate meaningful interprofessional dialogue. By integrating science and medicine in a shared learning environment, we offer a scalable, cost-effective approach to preparing future professionals for team-based healthcare.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Professor Iain Keenan and Dr Aleksey Kozikov

Ellie Shambrook, Emma Ashwell, Oliver Davies and Kaitlyn Paton
MPhys Physics with Astrophysics, BA Hons Music and BA Hons Fine Art

Interdisciplinary Approaches to Perceptualizing Intangible Phenomena through Sound and Listening

Our group project explored the process of sonification, which we can use to make otherwise intangible phenomena more tangible. We decided to focus on the collision of two black holes, a difficult phenomenon to interpret, and to explore alternative ways of representing it. As an interdisciplinary team, our aim was to combine our respective fields of Physics, Music and Art to create a physical and creative representation of the sheer magnitude of this cosmic event.

Two black holes colliding create massive "ripples" in spacetime, known as gravitational waves. These waves can be measured using interferometers which are large lasers that can detect very small changes in wave characteristics. We took wave data from the LIGO and VIRGO observatories, which have separate detectors located across America and Italy, respectively. We plotted the frequency of these waves against time to create a visual element to base our sonification on. Frequency was an intuitive choice, as it maps to pitch.

We used Ableton Live and Audacity to sonify the data. This involved mapping parameters such as the changing frequency of the gravitational waves to audible changes in pitch, dynamics and texture. This created a sound with a rise and fall in pitch and intensity at the collision event, followed by the quieter dissipation of energy after the event.

To present our project, we created an installation with surround sound speakers and projected visuals. The surround sound immersed the audience, while the visuals showed our interpretation of the rippling pattern of gravitational waves. Our project demonstrates how an interdisciplinary approach, combing physics with music and art, can present new ways of exploring phenomena that are otherwise beyond our comprehension.

Funded by: Newcastle University Research Scholarship

Project Supervisors: Dr Chris Harrison, Dr Jorge Boehringer, Ms Rose Shepherd and Dr Bennett Hogg

University Research Scholarships and Expeditions 2026

The University will once again support student expeditions and research scholarships in 2026.

2026 applicants are, however, encouraged to seek external funding wherever possible. Further information about the schemes, including details about eligibility criteria and applications procedures will be available on our webpages.

Information about posters, presentations and the celebratory event from previous years can be found at **https://research.ncl.ac.uk/expeditionresearchscholarships/postergalleries/**, presentations and prize winners will be available on this website from the end of January 2026.

Students cannot hold both University Expeditions Committee funding and Research Scholarship Committee funding in any one year.

University Expeditions 2026

Information about submitting applications for University Expeditions Committee funding will be available soon from Student Financial Support web pages at:

www.ncl.ac.uk/student-financial-support/research-funding/expeditions/

University Research Scholarships 2026

Information about submitting applications for University Research Scholarships Committee funding will be made available soon from the Student Financial Support web pages at:

www.ncl.ac.uk/student-financial-support/research-funding/

Feedback from previous participants

Below are a selection of comments from previous research scholarship recipients:

"Found the process rewarding.

Numerous opportunities to learn new skills- data collection and analysis, and evaluating the quality of resources".

"I have made really good contacts for future research and have realised it is a viable option. Also it has given me much more confidence in my academic abilities. My supervisor has given me lots of options about future research such as Masters and PhD programmes within the University. I have also spoken about my experiences to other members of my course which does not traditionally move many students on to research immediately post-graduation."

"It has made me consider research as a career and lab work too. Before I didn't have the confidence but after doing the research project I feel I could do this. I had a really enjoyable time and learned a lot."

"It provides undergraduates with the opportunity to experience research while being confident to make and learn from mistakes. It also allows you to get to know how you like to work, and what makes you work effectively - an important skill for any piece of work."

"The support and encouragement given by the University and Supervisor has increased my confidence and shown me that I am capable of taking on and completing research projects in areas of personal interest"

"I am sure now that I want to pursue research as a career"

"The scheme is amazing and massively enhances student experience at the university"

2025 Research Scholarships and Expeditions Scheme Feedback

If you were funded to undertake a summer research during the summer of 2025 we hope that it was a rewarding experience for you. We strive to improve the scheme each year and would greatly appreciate feedback regarding your experiences and thoughts.

A short survey, which should take only a few minutes to complete, is available at:
https://forms.office.com/e/vCyM6pnk1Q

Alternatively, if you have any additional feedback not covered in the survey please do not hesitate to contact us at: vacation-scholarships@ncl.ac.uk

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