



Doctoral Training Alliance

Developing the Next Generation of Researchers



National network



Enhanced training



High-impact research




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What is the DTA?

The **Doctoral Training Alliance** (DTA) – a structured doctoral training programme – builds upon the applied research strengths, industry-focus and collaborative ethos of our members.

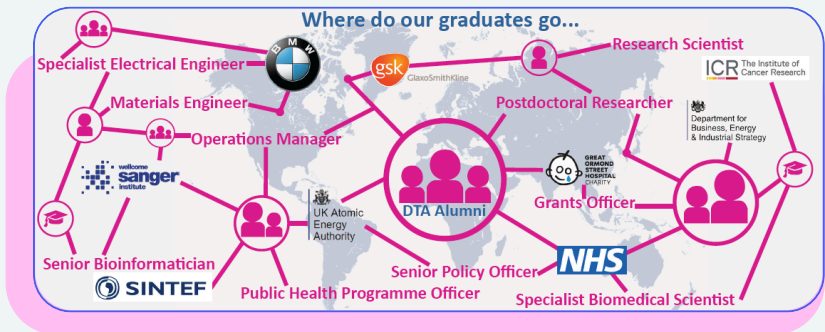
University Alliance established the centrally coordinated DTA initiative to support the development of the **next generation** of **independent, highly-employable researchers** with expertise and skills in **strategically-important areas**.

Since October 2015, the DTA has supported four interdisciplinary doctoral research programmes in **Applied Biosciences for Health, Energy, Social Policy** and **Future Societies**. The success of our open, collaborative and cohort-based approach has been supported by Horizon 2020 Marie Curie-Skłodowska Action funding.

DTA ... was a bridge that helped me move from doubt to confidence, from isolation to connection, and from hesitation to purpose.

The **enhanced training programme** provides doctoral researchers with a comprehensive understanding of the range of **career pathways** open to them within and beyond academia, alongside the development skills required to access those pathways.

With a **proactive, outward-looking mindset**, DTA graduates will be ready to translate their high-level skills into practice in the workplace. In recent years, **DTA alumni** have embarked upon a diverse range of careers including shaping policy through government bodies to consultancy for emerging start-ups as well as becoming healthcare professionals and engineers working across different areas of industry.





Future Societies

Our most interdisciplinary programme to date is the DTA Future Societies, which supports solution-driven research that tackles the world's most pressing challenges. Each PhD project aligns with one or more of the **UN's Sustainable Development Goals (SDGs)** and the corresponding research priorities of our members.

The collaborative research environment of DTA Future Societies nurtures the potential of doctoral researchers to generate the visionary strategies required to protect the world's ecological balance while taking care of the fundamental human needs of food, water and energy sustainability via the subthemes of **resource sustainability, citizen equality** and **societal challenges**.



Carrying out a PhD is an isolating experience, however being part of a community of practice as one develops their research skills and networks is vital to keep progressing ... the interdisciplinarity adds to the richness of that experience.

Engaging with peers from various fields has enhanced my critical thinking, enriched my research methods, and fostered a supportive network, making my PhD journey both rewarding and inspiring.



DTA Researcher Stories

Everyone has a story...

...the **reason** they chose to pursue their PhD, the **motivation** for choosing their particular research topic, and the **impact** that they wish to make through their research.

Over the years, through researcher presentations, blogs, and interactions with our researchers, we have observed that doctoral research students more often than not choose their PhD topic based on significant personal and/or professional experiences.

Through the '**DTA Researcher Stories**' initiative, we collected and collated these stories to showcase the inspiration behind the research and the impact our researchers wish to make through their PhD.

Twenty-two researchers took part in the project and related their experiences, in their own words. These case examples are varied and represent a range of motivations for pursuing a PhD.

We hope that these stories might **inspire** and **encourage** others to pursue a research degree no matter what their prior experience or background is.

They also demonstrate how pursuing a PhD can help someone **advance** the cause that is important to them.

Being part of DTA has shown me that a PhD student is not confined to the stereotype of what a researcher should look or sound like. It provided a safe, inclusive community that celebrates diversity, affirming that, regardless of background, we all have the ability and right to thrive as researchers.



University of
South Wales
Prifysgol
De Cymru

Bushra Waheed

Critically evaluating misogyny in the emergency services in England and Wales

Having been born in a society that values patriarchy, I was one of the five unwanted girls born to my parents, where the successive birth of all five was based on the hope of having “a son”. As life comes in unexpected ways, my parents now have to deal with all daughters. Experiencing misogyny first-hand in a culture where sons are preferred over daughters because of the belief that sons are the only support to parents in their old age, whereas daughters are viewed as a responsibility for a lifetime. This deep-seated repulsion towards girls made me a hardcore feminist, and fighting for their rights is the only agenda for my existence. Now that my parents have reached their old age and see me successful, they have finally allowed me to break the mental blocks and socially constructed norms around the taboos associated with being a female.

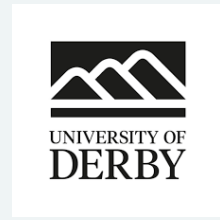


Dominique De-Light

Evaluating how community creative writing programmes impact participants' wellbeing

I have spent my professional life supporting people to use creativity to help their health and well-being. As a writer, I found creative writing helped me make sense of my experiences and got me through challenging life events. I'd established a national charity supporting marginalised people to use creativity to move from the margins to the mainstream, supporting their well-being whilst getting their writing published and their voices heard. Working with thousands of people over twenty years, I knew creative writing could be life-changing.

When I saw a PhD scholarship advertised, funded by Anglia Ruskin University and the National Centre for Writing, evaluating how community creative writing programmes impact participants' wellbeing, I saw my chance to evidence the health benefits of creative writing groups. With the NHS buckling under demand, social prescribing needing evidence of the benefits of creative activities, and more funding going into creative health, I knew this research was needed. It is rare for research to be done by professional practitioners with lived experience. As a mature student in my fifties, I felt I had a lot to offer, and I feel enormously privileged to undertake this work.



Ishtiaq Hussain

Race, Education and the Culture Wars

As a first-generation British Pakistani and Muslim, my journey has been shaped by a lifetime of navigating systemic racism and white supremacy. I saw how these forces silenced voices like mine, denied opportunities to people like me, and embedded exclusion into the very fabric of society. Leaving school without qualifications was not a failure of ability but a reflection of a system never built for someone like me. Returning to education in my 40s was my act of resistance—that politics is personal, and education is inherently political. The summer race riots and the rise of racialised culture wars have deepened my resolve to confront these injustices.

My PhD research, *Navigating the Culture Wars*, critically examines how these discourses are underpinned by racialisation, shaping schools as contested spaces of inclusion and exclusion. The mainstreaming of right-wing politics and the weaponisation of education perpetuate white supremacy, marginalising racialised students and staff while entrenching inequality.

My research is not just academic theorising; but is driven by a vision of schools as sanctuaries of hope, where every child—regardless of their race or background—feels seen, valued, and empowered. Through this work, I hope to challenge systemic racism and help build a future where inclusivity and equality are more than ideals—they are lived realities.



LEEDS
BECKETT
UNIVERSITY

Kate Marks

An intersectional approach to how self-identifying women experience and disrupt power in rugby leadership roles

Rugby Union is reliant on a volunteer workforce at every level of the game. Research to date demonstrates that women are consistently marginalised, particularly at a leadership level. My research combines new evidence on volunteering and leadership to understand the ways women experience power in voluntary rugby leadership roles. Alongside this, I am using novel methodological approaches, with a narrative analysis and creative non-fiction story writing. I chose to do my PhD in this area because of my academic interest in Black feminist theory, particularly the work of Audre Lorde, and my sporting background with over a decade of voluntary leadership experience in rugby union.

When I was 16, I started volunteering at a national level as Chairperson of the Rugby Football Union National Youth Council. This experience gave me so many wonderful opportunities to develop personally and professionally and gave me a deep understanding of the joy that volunteering can bring. Simultaneously, I faced moments of gendered discrimination, misogyny, and marginalisation. I spoke with a wide range of other women in rugby who had experienced similar negative situations, many of whom went on to leave their roles as a result of these forms of sexism. This PhD offered me the opportunity to contribute to change in the sports volunteering sector, particularly within rugby union, as I try to work towards improving the experience for diverse women.



Teesside
University

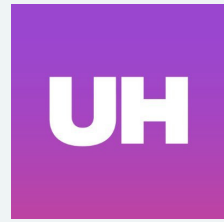
Shehani Pigera

Privacy and security in digital health contact-tracing

My research is focused on privacy and security in digital health contact tracing, specifically on developing a psychological model to increase the acceptance of contact-tracing apps. After completing my B.Sc. degree in biological sciences, I worked as a research assistant in the Faculty of Medicine, Colombo, contributing to clinical and community research projects. During this role, I developed a keen interest in community research, particularly how research could directly impact public well-being. My next role involved conducting research with athletes, further strengthening my passion for community research. I was excited about health and community-based interventions, which led me to learn more about psychology to understand human behaviour better.

Having completed my undergraduate and master's degrees at the same university, I wanted to pursue my PhD at a different university. Although my formal academic background was in the biological and chemical sciences, my experience in community research motivated me to apply for a PhD topic with a strong community research component rather than laboratory work.

This was a life-changing, challenging decision as I stepped into an interdisciplinary field that combined public health, technology, and psychology. Ultimately, I was pleased to secure a funded PhD position in the UK, where I could pursue my passion for research to solve real-world challenges.



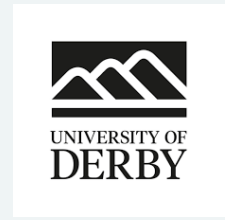
Joanne Barber

A Critical Investigation into Aesthetic and Embodied Learning for Democracy in Future Societies

I have always valued the role the arts play in education. Since my BA in Fine Art and as an art educator, I have appreciated the importance of aesthetic-embodied learning in how we intelligently relate to the world and others.

When teaching art to excluded students, in Alternative Provision, I heard their stories of feeling marginalized from school and their sense of injustice with the educational system. I experienced how the arts and aesthetic-embodied learning offered these students creative learning opportunities that developed their confidence, engagement, and capacities to flourish as learners. However, educational practices often prioritize cognitive capabilities and marginalise aesthetic-embodied dimensions of learning which underestimates how dichotomising practices entangle with the marginalisation of learners. Consequently, leaving the risk of reproducing educational injustices.

Using arts-based pedagogy as professional development my PhD explores how teachers can cultivate aesthetic justice as a democratic practice to reduce educational injustices. Aesthetic justice, in this study, focuses on a democratic freedom to discover aesthetic-embodied dimensions and experience them through learning so that perceptive, critical, and imaginative capacities flourish. The research anticipates bringing insight into the importance of aesthetic justice and aesthetic-embodied learning within teacher professional development for creative, holistic and democratically inclusive practices.



Cyril Mbachu

Natural Geochemical Weathering Strategies for Enhanced Carbon dioxide Drawdown in Agriculture and Regenerative Land Management

Our world is currently confronted with a climate change crisis due to the continuous rise in global temperature arising from the steady increase in the level of atmospheric greenhouse gases, particularly carbon dioxide. These gases are constantly emitted from human-related activities, such as the burning of fossil fuels. This negative trend will persist unless the emission of these gases is cut, and carbon dioxide is intentionally removed from the atmosphere. This objective can only be achieved through the collaborative efforts of everyone, as we are all stakeholders on our planet. My strong passion for preserving the environment developed after witnessing firsthand how badly our activities as human beings have negatively impacted our environment.

On one occasion, I encountered a situation where large expanses of forest and agricultural lands, which helped to regulate atmospheric temperature, were cleared of their trees and vegetation to gain access to ore veins, with little recourse to the reclamation and remediation of the land at the end of the exploitation exercise. It was at this point that I knew that I had to acquire the relevant skill set to join in addressing the negative impacts of climate change. Hence, in my PhD research, which seeks to address UN SDGs 2, 7, 12, 13, and 15 by deploying enhanced weathering strategy on agricultural land to draw down carbon dioxide from the atmosphere, I intend to leverage my decade-long experience as a geologist, collaborating with my peers where necessary, to contribute to current climate change mitigation efforts. I believe that if we can achieve the target of limiting the rise in global temperature to less than two degrees Celsius (2°C), we can then leave this earth in a better state than we met it, at least for the sake of posterity.



Zhida Gao

A Comprehensive Research on the Impact of Climate Change Risks (CCR) on Exchange-Traded Funds (ETFs) in the Environmental, Social, and Governance (ESG) Sector / Climate Change Risks & Sustainable Investments

I am currently in the first year of my PhD, focusing on helping investors identify truly sustainable ESG funds. My interest in this area stems from my lifelong passion for environmental protection. Growing up as an advocate for green initiatives, I became increasingly aware of how financial systems could be leveraged to drive meaningful change.

After completing my master's degree, I worked as a private equity investment manager and discovered a significant gap in how investors perceive and react to ESG funds. Many struggle to differentiate between funds genuinely aligned with sustainable goals and those superficially labelled as such. Moreover, I noticed that physical climate risks, such as natural disasters, were often underestimated in investment decision-making.

Through my research, I aim to bridge this gap by developing tools and frameworks to empower investors to make informed, responsible choices. This work reflects my belief that sustainable finance has the power to combat climate change while ensuring long-term value creation. I hope my research contributes to a future where financial markets align with environmental and social well-being.



Dilmi Mapatunage

Investigation of moorland management practices and carbon dynamics for climate change mitigation

As a self-driven young enthusiast, I was always interested in solving mysteries of nature from my childhood. Especially being a nature lover born in a developing country like Sri Lanka, I was always passionate about finding solutions for environmental issues that I had to witness since my childhood. My undergraduate studies strengthened this passion as I learnt deeper about greenhouse gases, the global carbon cycle, human-driven acceleration of climate change, etc. It was in my third year of university that I discovered the incredible potential of peatlands. Covering just 3% of the Earth's surface, these unique ecosystems hold an outsized role in storing carbon, making them a critical resource in the fight against climate change. I dreamed of not only witnessing their beauty but also contributing to their preservation and sustainable management.

The opportunity I got to pursue a PhD in the UK, focusing on how management practices in peatlands affect their chemical, physical, and biological properties, has been a dream come true. This research aligns perfectly with my lifelong commitment to addressing global environmental challenges. Through this work, I hope to leave a positive mark on the world by contributing to valuable insights that can support climate change mitigation efforts.



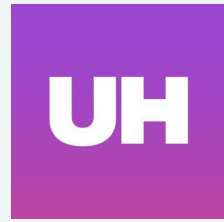
Rose Kobusinge

How do stakeholders approach collaborative design? A critical inquiry into the design processes of community-based solar electricity interventions in East African refugee camps. Case studies from Uganda and Rwanda.

Growing up in rural Uganda, I experienced electricity poverty first-hand studying by candlelight, cooking on a three stone cookstove and navigating darkness. Up to now, there is no electricity extension in my village. Later when I began working in environmental sustainability, I saw how refugee communities were often excluded from decisions about the very energy solutions meant to support them. Technologies were introduced through technocratic models that did not front the lived realities of communities. This led me to my PhD research on co-design in community solar electricity interventions in East African refugee camps. I examine how participatory frameworks either empower or marginalise displaced people in shaping energy solutions.

My research challenges the dominant narrative that positions refugees as passive aid recipients. Instead argue for co-design for energy justice where renewable energy interventions are designed and delivered through equitable and inclusive processes, and outcomes shaped by communities themselves.

This work is deeply personal for me. It aligns with my belief that sustainable energy is not just about technology, but about dignity, agency, and justice. Through my research, I aim to influence debates in research, policies and practices to ensure communities are not just consulted but meaningfully involved in shaping their energy futures. I hope my journey inspires others to pursue research that aligns with their values while contributing insights for people and nature positive development



Ellie Pritchard

Materiality, Memory, and Cultural Identity in Britain's New Towns

My research centres around the first generation of Britain's New Towns. Built after WW2, the New Towns Act was passed to radically transform the lives of those living in the poorest and most war damaged areas of London. I am originally from Harlow, a new town in Essex, where my grandparents were among the first to settle. My own personal connection to the new town's project has been deeply influential to my research. Having observed some of the problems encountered by communities in the new towns today, such as degeneration, my hope is that my research will provide insights into effective community and urban design and contribute to policy changes. Coming from a working-class background has been central to my journey as a researcher as it has helped me build authentic connections with members of local communities in the new towns.



Joanne Charlton

Decoding the non-coding RNA signature of glioblastoma

In my PhD, I am looking to find a new diagnostic method of Glioblastoma, one which is not as invasive as surgery and is more patient-friendly. Alongside this, I am trying to find novel treatments for the malignancy, as the prognosis is often very poor. I chose to do my PhD in this area because I have had the experience of feeling helpless while family members suffer through cancer treatment, unable to do anything, unable to make any difference to what was going on around me. When I was 14, my dad was diagnosed with bowel cancer. He was diagnosed as terminal a few months before I began university and then passed at the end of my second year.

My half-sister was then diagnosed with sinus cancer and passed within a year of her diagnosis. This PhD allows me to contribute to change in the treatment and diagnosis of cancer regardless of how big or small that contribution may be.

Adversities in life can and will change everything; however, it is the way we react to them that makes a difference. I do this research in hopes that I can prevent other families from going through what I, the rest of my family, and my dad and half-sister did.



Dolly McPherson

Defining quality in bystander CPR: Creating and validating a quality metric for the quality of bystander CPR in out of hospital cardiac arrest

When I was in my early twenties, I provided bystander CPR to a young colleague who collapsed at work, but sadly this young person died. This experience ultimately led me to retrain as a mature student paramedic, where I also discovered a passion for academia. Over the course of my career, I developed both clinically and academically, reaching a role as a critical care paramedic within an air ambulance charity and finishing my MSc with distinction. It was at this point that I considered a PhD as my next aspiration, but it wasn't until a long-term relationship ended that I was free to apply. Almost serendipitously, a PhD studentship aligned with an air ambulance charity, focused on a topic I am passionate about, was being advertised. I applied and was successful. I see this PhD not only as a chance to make a difference to others but also as the chance to make a difference to myself.



Roopsa Ghosh

Screening of CAR-T cell therapies using 3D microfluidic tumour models

My journey into cancer research began with a deep concern for those affected by the disease, especially after experiencing the loss of a family member to cancer. Witnessing the challenges faced by patients, I realised how much progress is still needed. Despite advances in medicine, the path to effective treatment remains long and difficult, particularly for aggressive cancers.

This understanding inspired me to focus on innovative therapies. At Teesside University, my research is dedicated to screening CAR-T cell therapies to develop more effective and personalised treatments.

I believe that even small steps in research can lead to significant improvements in patient care. I aim to help bridge the gap between scientific discoveries and real-world treatments, offering new hope to those battling cancer.



Idris Choudrey

COVID, Cognition, and Attention

My research is looking at how COVID-19 can affect individuals' Visual Attention and Cognitive Flexibility, with its potential relationship to Depression. I picked this topic as Cognition and Depression were very interesting to myself, and with the global effect COVID-19 had, investigated its effects on individuals' cognition seemed like a worthwhile endeavour. Coming from a Mental Health work background before I started the PhD, I was able to see how COVID-19 negatively affected individuals mental health. How COVID-19 affected individuals due to the lockdown restrictions put in place, loss of loved ones, and the disease itself. Even with the peak of the disease having passed during lockdown, Long COVID still affects many individuals today. With appropriate research around COVID-19 and Long COVID, we can support those still affected by it.



Daniel Marshall

Exploring the Need for Meta-Organizations in the Ecosystems Combating Antimicrobial Resistance

Antimicrobial Resistance (AMR) is one of the biggest challenges facing public health today, and yet current approaches to combating AMR have shortcomings. My project aims to identify the role meta-organizations could have in helping overcome these shortcomings. I wanted to explore a PhD in an area that could have a widespread impact on a Grand Challenge which affects real people. With my background in biochemistry and having read the devastating affects of AMR I identified this as an area that needs to be seriously addressed.

Exploring this area is making me feel fulfilled, not only as a researcher but also from an ethical standpoint. I feel I have been allowed to create a project which aligns with my moral values and begin to hopefully make a real difference.



Amanda Anderson

Faith-based Environmental and Sustainability Education

My PhD focuses on acting in the climate crisis and the role of environmental and sustainability education (ESE). As mum of two children, I worried about the state of our planet and the kind of world future generations will inherit. Influenced by Greta Thunberg's climate movement, and likewise not convinced that the big actors are doing enough, I focused on climate education outside school. An effective environmental and sustainability education that leads to positive and sustainable futures isn't solely a result of formal schooling but should be reflected all around us through our community networks. My research focus is faith-based ESE because many community members still draw their values from their faith belief. With my research, I actively engage with the current climate crisis and take up responsibility, setting an example for my children.

I started my PhD after 20 years of professional work experience in education, at 45; this couldn't have been possible without the wraparound support and encouragement of the DTA. I focused on ESE in our community because there is effective informal and non-formal ESE from which we can learn, and as a result, be reflected in education practice and policy-making towards climate change mitigation.



Elisha Doi

Exploring the Curable app for chronic pain

My research journey began as a physiotherapist treating chronic pain, with a front-row seat to the profound suffering and stigma patients endure. Too often, their pain is dismissed, and the healthcare system fails them with long waiting lists and limited resources. My motivation stems from a deep awareness of these silent battles, shaped by both personal and professional experiences. Despite giving my all within my clinical role, it never felt like enough. The scale of the problem begged for new ways to provide care to those who so desperately need it.

With over 50 million smartphone users in the UK, app-based care for chronic pain could potentially bridge the chasm in access to care, bypassing systemic cracks to reach people where they are.

Curable – an app-based recovery programme designed by clinicians, researchers and people with lived experience of chronic pain – could help many, but the question remains: who? My research seeks to answer this. Is this app truly helpful? Under what conditions does it thrive? Who benefits most—and who does it leave behind?

This work reflects my values of equity, accessibility, and compassion. I hope to challenge the current system and ensure that no one suffers needlessly in silence.



Michelle Strauss

Improving international environmental law: Incorporating the perspectives of more-than-humans in environmental decision making

International environmental law is proving not providing effective solution to the environmental crises we face. My research is looking at how we can transform environmental law and I am looking specially at whether the inclusion of more than humans in decision making processes may provide one approach to enable the law to provide a more effective response. I came to this research as I initially worked as a solicitor for about 10 years. During this time I became involved in animal and environmental law work on a pro bono basis. This work brought home the significant harmful impacts that intensive animal agriculture has on animals, the environment and people. But more than this, I also became alive to the systemic problems within public bodies that inhibit the proper implementation and enforcement of animal welfare and environmental laws.

It was the shortcomings of the legal and governance processes that troubled me most.

I became interested in pursuing a PhD for a few reasons, but the primary one was that I felt I was identifying issues in my pro bono and activist work that needed proper research and consideration. My formal legal training was helpful to a point, but lacked the critical perspective to enable me to step outside of the law and consider the problems from a new angle. For this reason I have found the PhD process transformative to my thinking and immensely enjoyable.



Md. Johirul Islam

Prevention of Diabetic-Related Retinopathy: Using Artificial Intelligence to Transform Clinical Outcomes

My PhD research aims to develop an automatic artificial intelligence (AI)-based prediction tool to determine whether eye blood-vessel changes occur before clinical evidence of retinopathy and to assess its potential cost-effectiveness preliminarily. I have a profound personal story behind my PhD journey, and this research resonated with my background, goal, and personal journey. From childhood, I dreamed of doing my higher studies abroad. After completing my BSc in CSE, I moved to the UK to pursue my MSc in AI, where my final year dissertation was focused on AI in healthcare, particularly mental health.

My MSc dissertation in healthcare inspired me to pursue PhD in this domain, as conducting research using AI in healthcare has a significant real-life impact on people's lives. When I found this research, I realized it perfectly aligns with my aspiration and the best research opportunity for me. Furthermore, some of my family members have diabetes, and I personally know how dangerous it can be if people don't manage it on time. This personal experience further motivated me to work on this research, which can effectively prevent diabetes retinopathy-related complications. I am really grateful for this research opportunity, as it perfectly aligns with my long-term goal.



Anthony Mullin

Investigating on the impact of plant-based flavonoid enriched extracts on the health and fragility of tumour and normal cells exposed to chemotherapy

My PhD aims to explore the therapeutic use of lesser known phytocannabinoids to influence cellular senescence in human breast cancer, post chemotherapy. Previously, I worked with some NHS trusts to test monoclonal antibody anti-cancer drugs, with a view to making them more available and cost effective. The opportunity to continue this work in anti-cancer therapies, with a high degree of novelty, is the reason why I applied for my PhD. I feel we have all lost someone to cancer, or been touched by the disease; I am proud to be part of research that could one day change someone's life or keep a loved one close for longer.

10 years of DTA



DTA



4 Programmes



24 Universities





331 Doctoral Researchers



Doctoral Training Alliance

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