

# Working Towards an Inclusive Research Culture Through EDI Education, Engagement and Empowerment of the Research Community

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## Abstract

*This paper provides critical reflection on work and progress to embed EDI in our research and innovation workforce, practice and culture at the University of Manchester. Our university aim is to take an intersectional and holistic approach to educate, engage, empower and support our staff and student community at all levels to prioritise EDI. To embed EDI in research and promote collective responsibility to help shape a fairer, inclusive research culture the University launched the 'Inclusive Research Transformation Programme'. This programme included developing inclusive research mindsets and building inclusive leadership capacity (from UG to senior research leader); a University EDI award scheme which catalysed innovative local and national researcher led EDI initiatives; and targeted funding schemes to help address gender, ethnicity, and disability inequities within our research career pipeline. Three schemes were developed, an UG EDI summer placement scheme, an early career research staff EDI fellowship underpinned by inclusive advocacy and an established academic returners scheme.*

**Keywords:** active-bystander; equality, diversity, and inclusion; inclusive leadership; intersectionality.

## **Introduction and Aim**

Equality, Diversity and Inclusion is a strategic priority for most Higher Education Institutions including the University of Manchester (2020). It is increasingly seen as integral to HE success with growing sector wide recognition that EDI underpins an open, responsible and positive research culture. In line with research funder strategy developments, we are prioritising the creation of a ‘world class research and innovation system “by everyone and for everyone”’ (UK Research and Innovation, 2023).

The University of Manchester has a growing understanding of the EDI demographic profile and experiences of our researcher community. This has predominantly focused on the progression of gender and ethnicity equality through our equality charter marks<sup>i</sup> (Advance HE Athena Swan Gender Equality and Race Equality Charter, currently awarded 2 institutional silver awards). The university is also supporting early career research staff careers through our comprehensive researcher development and HR Excellence in Research actions (award held since 2009). More recently as a ‘Disability Confident Leader’ employer we have prioritised disability data monitoring and for the first time published our gender, ethnicity, disability, sexual orientation and religion pay gaps (University of Manchester, 2024).

Sex, ethnicity and disability analysis of our university student and academic staff profile shows the characteristic ‘leaky pipeline’ (Goulden et al., 2011). In all disciplines representation of academics who identify as female, ethnic minority or disabled at the highest professorial level is lower than at early career researcher (ECR postdoc and PhD) level; which is in turn lower than the diversity of our undergraduate (UG) population (University of Manchester, 2023). We currently lack comprehensive pipeline data beyond binary sex, for other protected characteristics such as sexual orientation or for related factors associated with disadvantage e.g., socio-economic background. The loss of diverse talent we experience is reflected throughout academia resulting in a UK professoriate that is 69.7% male and 89.6% White (Advance HE, 2023).

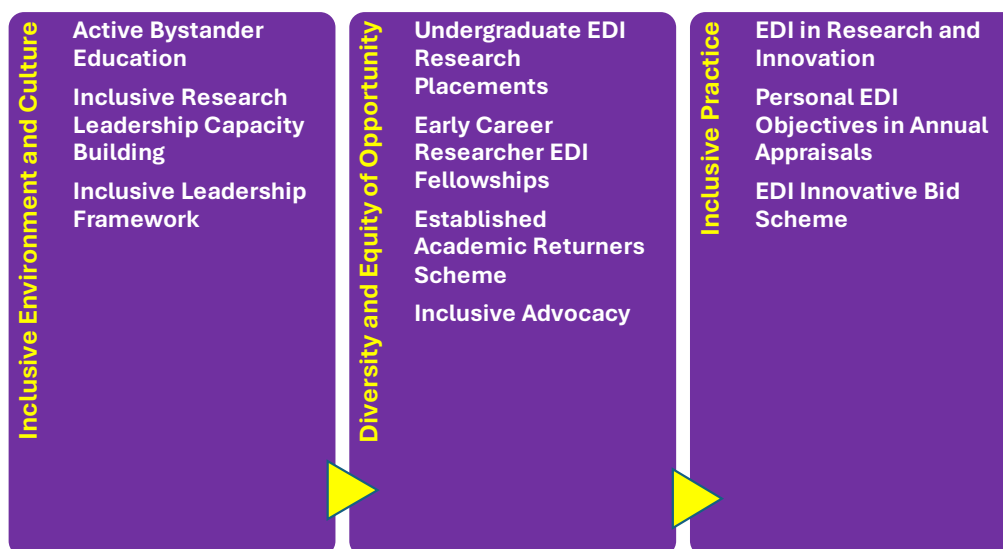
Grogan argues that this is not a passive leakage from the research pipeline but the result of systemic biases and barriers within research practice and culture that prevent diverse talent entering and progressing in the sector (Grogan, 2018). This could be through a combination of unequal recruitment and retention, higher barriers to develop as a research leader and slower career progression. Analysis of data throughout our pipeline is helping us pinpoint where the most significant talent ‘leaks’ are and simultaneously target interventions to increase EDI demographic diversity at each career stage and provide tailored support for disadvantaged researchers. We are also working to understand and ‘fix the leaks’, address

systemic barriers, create equity of opportunity and a positive and inclusive culture. Known inequities highlighted by our data include females applying for and receiving lower grant funding levels and ethnic minorities experiencing lower success rate. Gender disparities are corroborated by national funding distribution data (NIHR, 2022; UK Research and Innovation, 2021). Other key marks of esteem such as representation on decision-making bodies and research committees also show that females and ethnic minorities are under-represented. Analysis of the experiences of our researchers shows that female researchers perceive lower levels of recognition for their work and female, ethnic minority and disabled staff are significantly more likely to report experiencing discrimination, bullying and harassment. There is limited quantitative data and understanding of the leaky pipeline faced by people who are non-binary, however, qualitative data from our University Staff Survey 2022 showed that staff stating 'Other Gender Identity' perceive significantly lower levels of recognition and value for the work and were more than twice as likely to state they had experienced bullying or harassment at work (data not shown).

The University recognises the need to elevate our approach and shift focus from individual protected characteristics to addressing the intersectional and systemic inequalities experienced by our research community. Therefore, in early 2021 we launched a two year 'Inclusive research transformation programme' allowing us to build on existing EDI successes and establish new initiatives aligned to our three EDI strategic priority areas (Figure 1).

*Figure 1: Overview of Inclusive Research Transformation Programme activity aligned to the University of Manchester's three EDI priority areas.*

## Inclusive Research Transformation Programme



This paper takes a reflective perspective documenting progress and challenges of implementing our system-wide, co-created, EDI approach. Our aim was to initiate local and centrally delivered activity to engage as many people as possible and begin to work towards collective action and personal accountability for EDI progress across a large research-intensive University.

### **Definition of Terms**

For clarity and to avoid misinterpretation across an international, interdisciplinary readership key terminology has been defined:

*Equality:* Ensuring that every individual has an equal opportunity to make the most of their lives and talents.

*Diversity:* The practice of including people from all protected groups and different social backgrounds that are associated with disadvantage in study, work of society.

*Inclusion:* The culture in which people can work, study or live and feel comfortable and confident to be themselves and to be able to fully contribute.

*Equity:* A system of justice and fairness, where the individual needs and requirements of each person is taken into account and treated accordingly

*Intersectionality:* The interconnected nature of social categorisations such as gender, race and socio-economic status, as they apply to a given individual or group, regarded as creating overlapping and interdependent systems of discrimination or disadvantage.

*Myth of Meritocracy:* The belief that we work or study in organisations where individuals that work hard will be rewarded, whilst those who do not, will not be rewarded.

### **Building Inclusive Researcher and Leadership Capacity**

From the point of entry to our university, as an UG or as a senior academic leader, our aim is to enhance EDI knowledge, skills and attributes and develop people as inclusive leaders. This strategic priority is fundamental to ensuring fair and effective study, work, and research with as wide a societal impact as possible.

#### *Embedding EDI education and inclusive leadership in our student curriculum*

The University commissioned a credit bearing, interdisciplinary, UG unit 'EDI: Your role in Shaping a Fairer World'. The unit was co-created with UG and postgraduate (PG) students, the EDI Directorate and equalities research experts across the University and launched in February 2021. The

unit includes modules on EDI in research and innovation, health and social care, education, the workplace, and gives a historical and global perspective of EDI history and legislative development. The fully flexible, online unit promotes extensive self-reflection and peer discussion. Learners share culturally diverse perspectives and experiences; confront personal values, beliefs and codes of behaviour leading to bias and discrimination; and consider privilege, dominance, and power and how this contributes to ongoing individual, organisational and systemic inequalities. Over 400 students have completed the full unit. A unit taster is available to all students and staff and sent to all University offer holders. This signals the importance and value of EDI to all prospective and current students and staff. Example second year UG student feedback highlights learning and inclusive leadership development through the unit:

*I believe that if we apply the mind-set represented throughout these modules, we can make any environment more inclusive, diverse and equal. (Student Feedback)*

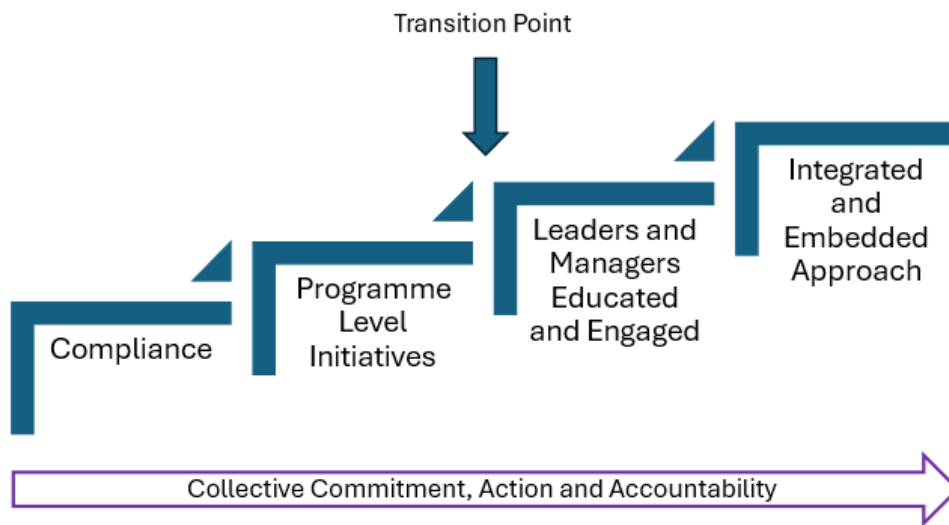
Importantly, the unit introduces the concept of being an ‘active bystander’ (Fenton et al., 2016), emphasises our zero tolerance of all forms of bullying, harassment and discrimination and raises visibility of our confidential report and support system. This empowers students and supports them to be personally accountable and safely act, calling out behaviours that erode an inclusive culture.

*Embedding EDI education and inclusive leadership in our organisational development offering*

We know we have much more to do to engage, educate and support researchers at all levels to take responsibility and collective action towards an inclusive culture. Self-assessment against our EDI strategic priorities, research staff concordat and charter mark action plans show that we are going beyond compliance and making progress through programme level initiatives. Following the Deloitte Diversity and Inclusion Maturity Model of Inclusive Organisations (Bourke, 2018) (Figure 2, adapted model) we are working hard to move past this transition point to harness the inclusive leadership capacity of all of our leaders and managers.

Figure 2: Pathway to a fully inclusive organisation. Adapted from (Bourke, 2018)

## Pathway to an Inclusive Organisation



Leader led inclusion has been shown to improve diversity, increase team performance, decision making and collaboration. The university learning and organisational development function created a leadership framework co-developed with participants (professional services and academic middle managers) on our in-house leadership and management programme. Nine key attributes were identified including role model for inclusion (**Figure 3**).

Figure 3: University of Manchester Leadership Framework.

## University Leadership Framework



The framework was launched alongside an associated self-assessment online tool in 2021 and has been tested with leaders at all levels and in all areas. The framework is now available to all staff to inform their personal development and growth. It is used within leadership development programmes for new academics and fellows. Integrated into annual appraisal processes for leaders and managers the framework helps assess inclusive leadership capacity and the setting of personal EDI objectives. Measurement of engagement and impact on our culture is still to be assessed. Through our biannual University Staff Survey 2022 we have been able to capture baseline culture data against which changes can be measured.

### **Catalysing Inclusive Practice and Culture Change Through Our Innovative EDI Bid Scheme**

Adapting good practice from the Manchester Advanced Biomaterials Centre for Doctoral Training, the University of Manchester was able to harness the creativity of our research community through a university wide innovative EDI bid scheme. Open to researchers at all levels we welcomed new ideas, activity and research that supported, celebrated, or promoted diverse researcher success and inclusive research practice and culture change. Through a rolling 12-month call we funded 13 projects (from £1.5K – £5K funding per opportunity). Projects were led by PhD students through to senior academics and collectively engaged, empowered, and educated >1000+ researchers through a range of team, discipline, department, and University level events. We also funded preliminary research to inform institutional policy developments (breast feeding and shared parental leave) and a national level EDI event celebrating and supporting UK postdoctoral researchers. Project leads provided 6-month post evaluation of impacts, all citing how valuable the scheme has been. ECRs gained experience of internal award application and success, project execution and reporting. One project lead won a national postdoc conference EDI award. Legacy resources were created helping embed EDI in researcher and academic development. Inclusive research blog posts and inclusive methods were developed. University support has been secured to progress policy development and evaluate the longer-term impact of the scheme. School and Faculty funding has been committed to continue initiatives e.g., annual women's writing retreat in the School of Engineering. The EDI bid scheme also sparked local EDI funding competitions within research groups and divisions/departments helping extend the life of the scheme.

## **Creating Equity of Opportunity at Key Transition Points in the R&I Career Pipeline**

We invested in three personal funding initiatives at the UG, early career contract researcher and early/mid tenured academic career stage. This was in response to persistent barriers in accessing higher research degrees, difficulty in subsequently sustaining academic research careers and the under-representation of people from protected groups at senior academic research level.

### *Establishing undergraduate EDI research placements*

We offered UG placement opportunities to late stage UG students from under-represented protected groups as defined by the Equality Act 2010 (**Act, 2010**). We modelled the process used for summer research placements offered through our university careers service for students from widening participation (WP) backgrounds. We recruited EDI research placement students through an open call including a positive action statement highlighting under-representation. Demand exceeded expectations (9.1% success rate) with 20 students supported annually. EDI data showed a 79%:21% female:male split, 37% ethnic minority, 16% disabled, 55% first in family at university and/or from a low socioeconomic background. All received funding for 2-month full-time research projects (with online and face-to-face options offered). Benefits cited included gaining valuable insights into contemporary, cross disciplinary research fields; developing research methods, technical, analytical and transferable skills (teamwork, confidence, communication skills); and exploring the research work and careers of academics. Perhaps most crucially, 76% reported increased access to new academic networks of support; people who could demystify academic research processes and expectations for academic career success; senior career mentorship providing the cultural capital which people from under-represented groups may lack (**O'Connor et al., 2020**).

Short term evaluation showed 100% supervisor and student satisfaction. Tangible outputs included generation of literature reviews, publishable results, report and blog writing, conference organisation and participation in international collaborative research. 85% of students expressed a desire to pursue PG research. Example UG EDI placement student feedback emphasises the impact and influence of the experience on future career choices:



*More confident to go towards my master's and PhD plan, conducting research in a captivating field [...] More knowledgeable and informed about the opportunities in industry and academia [...] It is worth pursuing a career in research [...] a unique opportunity to gain insight into the field and make connections. (Student Feedback)*

Supervisor and student suggestions to enhance the EDI placement offer included increasing placement numbers; extending placement duration and offering on a part-time basis; and bringing placement students together to share cohort experiences and engage in research careers training. It was also challenging to effectively communicate the scheme across our large, dispersed organisation (31,275 UG students, 5190 academic and research staff, July 2023 data) although placements were taken up in all Faculties.

We are now working with the careers service to bring best practice and learning from UG EDI research placements and WP research internships together. We will evaluate the long-term career impact and consider how we can strategically link UG research internships with targeted Masters Scholarships and PhD studentships. Encouragingly, we are also seeing UG EDI research placements included within research capacity building and centre grant applications and renewals.

#### *Establishing early career researcher EDI fellowships*

This initiative was developed to acknowledge and begin to address the sector-wide need to do more to support early career researchers (ECRs). ECRs are predominantly on fixed-term contracts, or open-ended contracts linked to finite funding, of varying length but often of too short a duration. The scheme aimed to help under-represented ECRs build a portfolio of academic achievement. Including independent research that would allow them to make the transition into a personal fellowship or tenure track academic position. We are making concerted efforts to support ECRs (strategically led through our Research Staff Concordat/HR Excellence in Research Award/Action plan). Our ECR community is drawn from an international talent pool and as such is relatively diverse (56% female, 33% Ethnic minority, 16% state a disability). The university provides comprehensive researcher development and careers support for ECRs pursuing broad research careers within and outside academia; provides support for internal and external independent fellowships through our fellowship academy but we wanted to supplement this with a scheme that harnesses the diversity of our ECR talent. Therefore, we established a new EDI 'Perera' fellowship scheme, honouring Prof Katharine Perera, our former Pro Vice-Chancellor and first Athena Swan gender equality lead. We adopted the same inclusive recruitment approach as for placements with an open call for people from all protected groups. Additionally, we

used the narrative CV format adopted by UKRI to allow applicants to showcase broad academic contributions (**UK Research and Innovation, 2024**).

We supported seven, diverse, talented, ECR staff (5 female, 2 male, 71% ethnic minority, disability status not captured). All awardees had been significantly impacted by COVID-19, either by being redirected to COVID response research or clinical practice, and/or having caring responsibilities during the pandemic (43%). All had non-traditional career paths and were recruited on merit. The fellowship aimed to allow awardees to develop their independent research ideas and profile. Recognising the 'myth of meritocracy' that exists in the sector, which makes it more difficult for researchers from under-represented groups to gain recognition for their work and access networks of support, we paired all fellows with a senior research leader who acted as a career advocate. With constraints on funding duration, we were able to provide salary and consumables for only 1 year.

However, the early impact has been considerable including increased social media presence, invited talks/visiting professorship, publication success, team building, PGR supervision, PI/line management experience, leadership opportunities and fellowship/grant bid submission and success. Early success of the EDI Perera Fellow award is exemplified through qualitative feedback from an awardee:

*I finished a successful PhD and Postdoc ... and was able to patent two ... products .... After the birth of my second daughter, I had to take a break to help her with her special educational needs. The fellowship enabled me to resume my research and publications and was the first step towards my independent career' and 'I truly believe that I couldn't obtain this new fellowship without having the EDI fellowship, the EDI-Advocacy programme and your support. (Awardee Feedback)*

#### *Embedding an established academic returners scheme*

Our final award scheme aimed to support established academic researchers whose career trajectory was impacted by taking an extended career break of 6 months or more. Open to all teaching and research academics taking a break for any reason e.g., maternity, paternity, adoption, caring, sick leave. The academic returner's scheme provided backfill of salary or research assistant support for a semester plus additional research consumables or funding for career profile raising activity upon return to work. Longitudinal (12-18 month) evaluation of 18 academics (100% female, 11% ethnic minority, disability data not captured) showed extensive personal benefits and research impact. This included securing internal seed corn funding; execution of pilot fieldwork

and establishing new collaborations; grant and fellowship success; publishing papers, book chapters, first monographs; attending and hosting conferences; smoother return to work than previous leave; increased productivity, wellbeing and cover of additional caring costs incurred because of profile-raising activity.

Academic returners feedback shows the impact of the scheme:

*Best thing that has happened to me in the Uni [and] hugely beneficial to me... I have been able to submit one internal and three small external research grants, one Advance HE Good Practice grant and have another larger grant in progress. I'm delighted to say my applications this year have been successful... These are my first wins after two years and my maternity leave and they are a huge boost to my confidence and hopefully the longevity of my research career. (Researcher Feedback)*

This scheme is now part of our core package of benefits for academics across the University on both teaching and scholarship and teaching and research pathways.

### **What Have We Learned?**

There is widespread EDI interest and commitment across our research community with researchers at all levels coming forward to innovate and advocate for EDI in research. We have been able to establish new initiatives and take good practice activities that were happening in pockets across our institution and make them available across the University with relatively modest investment. The research and career impact of relatively short-term personal awards (from 3 months to 1 year) has exceeded our expectations and further re-enforces the need for equity of opportunity and advocacy for 'hidden talent' in our current system and culture.

Positive action statements highlighting sustained under-representation in research careers, and communication of the rationale for targeted development opportunities, have been effective in increasing the diversity of researchers in the applicant pool and awardees. Aligning inclusive research transformation work with our EDI strategy has been essential to facilitate the cascade of

activity and allow us to monitor progress through our University EDI governance and accountability cycle. Where possible we have built in evaluation of impact using evidence of success to embed initiatives as standard across the University.

## **Challenges and Future Development**

Beyond sex, race and disability we do not have comprehensive diversity data for other protected characteristics and associated factors such as socio-economic status, parental and caring responsibilities that are known to impact research and academic careers (**Morgan et al., 2021**). Legislation, cross-funder or cross-sector mandates or consensus on what comprehensive diversity data should be collected would be helpful, as would expanded EDI data gathering at the national level e.g., by HESA.

We have taken positive, rather than affirmative, action to promote diversity and equity of opportunity and have been mindful of the legal and ethical challenges that can arise. Especially when there is a lack of specific data demonstrating a clear problem for a particular protected group. We regularly review and assess the impact of positive action in line with our institutional positive action statement and agreed approach. When data becomes available over time, we will use this approach to refine and justify the continued need for such measures.

It has been challenging to secure ongoing funding for initiatives where we have shown short term positive benefits but where the evidence of longer-term impact has yet to be completed. This is creating a lag and preventing us from being able to offer all opportunities on a rolling or annual basis. We are aware that this could create frustration amongst researchers, and particular those who are early career and on fixed term contract, so may never personally engage with, or benefit from equitable support.

Work is ongoing to ensure strategic alignment of EDI strategy and research strategy which should help counter ongoing perceptions that EDI is 'a nice to have' and the work of EDI champions and EDI Directorate. This alignment may be helped by the increasing focus on research culture across the sector. New funding streams are being made available to the sector to support investment in positive culture change. New leadership and operational research culture roles are being created and may be an opportunity to sustain and fully embed EDI in research work. Researchers are more likely to be incentivised and rewarded within the current system and culture to progress EDI under the auspices of research culture work. By pivoting towards research culture more researchers including those resistant or ambivalent to the EDI rationale may also be engaged. However, given the broad, undefined scope of research culture work this could also result in duplication of activity or the sector pivoting away from EDI and solely focusing on other aspects of research culture. It is imperative that we continue to call out inequalities in research workforce, practice and culture and guard against any dilution of EDI in research progress.

Although we faced challenges to engage and communicate with our large staff and student community, we recognise the advantages that size brings. As a research-intensive institution with established central EDI, researcher development and research and business engagement infrastructure and teams we acknowledge advantages we may have compared to other institutions. Where possible we are collaborating through researcher development, research culture and EDI networks to share resources. We must acknowledge, reward, and celebrate any gains made no matter how hard won, or slow we feel the progress we are making. Creating truly inclusive mind-sets and culture throughout an organisation will take time and concerted action from all key stakeholders in the research and innovation ecosystem is needed.

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Sarah Williams (she/her/hers) is Teaching and Learning Manager at the University of Manchester and Senior Fellow of the Higher Education Academy, Advance HE. She has worked at the University since August 1999 in various professional services roles including as Project Manager for the Wellcome ISSF Equality Diversity and Inclusion project.



Maria Marsh (she/her/hers) is a Programme/Project Manager at The University of Manchester with a background in Academic and Researcher Training and Development, currently managing a national Translational Research Collaboration and previously managed the Inclusive Research Transformation Programme funded by Wellcome which had the aim to embed Equality, Diversity and Inclusion in research.



Di Zhang holds a Degree of MSc Accounting and Finance from University of Manchester. Right after graduation, she worked as an administrative intern at the Centre for Academic and Development office, in the area of diversity, equality and inclusion. She is now an auditor in a professional services firm. She lives in London, and in her free time, she likes yoga and squash.



Neal Chamberlain worked at senior levels in human resources, for organisations including ICI, AstraZeneca, Unilever and Tata, before making the transitions into learning and organisational development. At the University of Manchester, Neal has led the leadership and management development portfolio in the Learning and OD team. In this capacity he developed the Inspiring Leaders Programme, aimed at building leadership capability at senior levels. Subsequently, he led the development of the Leadership Framework; to aid the ongoing building of leadership capability identifying Role Model for Inclusion as one of the key elements of the framework.



Diane Harris is a senior lecturer in education and senior research fellow at the University of Manchester. She is passionate about advancing women and girls in STEM fields. Her dedication led to a 'Making a Difference Award' from the University in May 2023 for her impactful work with women in higher education in India and Brazil. Committed to gender equality, she develops transformative initiatives to empower women academically and professionally in STEM disciplines. Diane's advocacy continues to make a positive impact in the field of education, leaving a lasting legacy of empowerment and opportunity for women in STEM.



Michael Dixon undertakes his research in craniofacial biology. Among other conditions, Michael identified the mutations underlying Teacher Collins syndrome, Van der Woude syndrome, and popliteal pterygium disorders, as a result molecular testing for these conditions is available as an NHS service.



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## List of Figures

Figure 1: Overview of Inclusive Research Transformation Programme activity aligned to the University of Manchester's three EDI priority areas.

Figure 2: Pathway to a fully inclusive organisation. Adapted from (Bourke, 2018)

Figure 3: University of Manchester Leadership Framework.

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## Endnotes

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<sup>i</sup> Advance HE Athena Swan and Race Equality Charter Marks are international frameworks used to support and transform gender and race equality respectively within Higher Education and Research.