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The University of Manchester

University of Manchester: a partner of choice

How scale and a translational ethos enable effective collaborations.

The University of Manchester's status as the partner of choice for external collaborations is underpinned by three core strengths: a 'can-do' attitude, business-friendly processes, and the ability to apply a wide range of interdisciplinary expertise to any problem. Collectively, these strengths make the university an exceptional resource for its collaborators.

These strengths are illustrated by an example from Alan Dickson, director of the university's Centre of Excellence in Biopharmaceuticals. "A biopharmaceutical company came to us with a project about how the passage of a biological medicine through a needle in delivery caused damage to the molecule," Dickson explained. This problem is beyond the capabilities of many biopharmaceutical teams; not so at Manchester.

Seeing a possible solution when others may have only identified problems, Dickson agreed to take on the project. Work got under way quickly, and the problem was solved by enlisting the support of one of the university's aeronautical engineers whose expertise was ideally suited to a puzzle that had more to do with physics than biology.

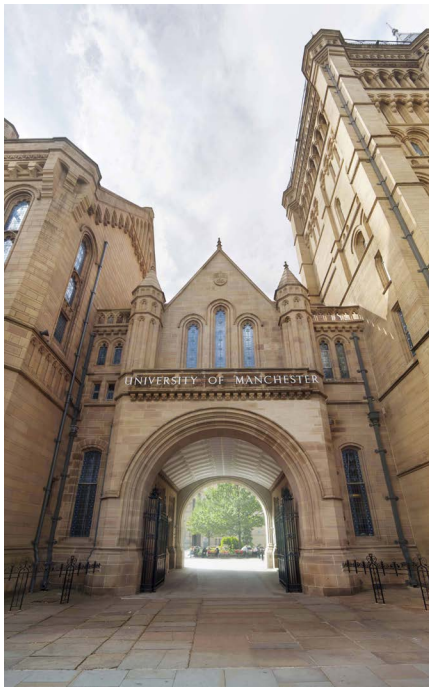
Such interdisciplinary research is made possible by the university's breadth of expertise, which covers all important areas of biomedical and physical sciences. The biomedical sciences faculty at The University of Manchester alone has more than 800 experienced specialists who cover the broad spectrum of 21st-century health care issues. All the specialists are keen to ensure that the fruits of their research are used to deliver commercial and societal benefits.

Inflammation drug discovery

A strong commitment to academic–industry collaborations, as well as a willingness to think creatively to realize the benefits they afford, is manifested in the Manchester Collaborative Centre for Inflammation Research (MCCIR). This is a joint venture established by the university, AstraZeneca and GlaxoSmithKline, providing the university with an opportunity to work in partnership with industry, in order to exploit collective know-how in inflammation biology and inflammatory disease.

MCCIR has grown quickly, now comprising over 80 scientific staff. Academic and industry scientists work shoulder to shoulder, allowing them all to benefit from exposure to new people, problems, and ways of working. The potential for broader benefits is significant.

Through the exploration of inflammatory processes using cutting-edge science and technology, MCCIR is helping researchers identify new drug targets that could lead to novel treatments for unmet medical needs. In providing a path from academic labs into industry-led trials, MCCIR is a clear example of the university's practical research ethos.



Excellence in oncology

This can-do ethos is similarly apparent at the university's Institute of Cancer Sciences (ICS), which is part of a cancer cluster in the city that takes a translational and precision medicine approach to oncology. Manchester is equipped to rapidly advance from fundamental basic science through to application in patients, and back again. With few other cities having such capabilities, Manchester has lofty ambitions. "Our aim is to be, collectively, in the top three cancer centers in the world, competing with established centers," said Paul Townsend, associate dean for business engagement. "We're well on the way to achieving that."

ICS, a leader in biomarker discovery, works closely with the Cancer Research UK Manchester Institute and the Christie NHS Foundation Trust under their collaborative umbrella of the Manchester Cancer Research Centre. The synergy between these partners is evident.

The Christie is the largest single-site cancer center in Europe. With 15 million people living within 90 minutes of the hospital, it treats 44,000 patients a year and has 550 active clinical trials, including many run by an internationally renowned phase 1 unit, which is overseen by an industry-experienced clinician. This work is complemented by world-leading basic and translational research at the Cancer Research UK Manchester Institute, providing Manchester with the capabilities to advance drugs rapidly.

Industrial biotechnology

The scale and interdisciplinary model that define the work of ICS and the Manchester Cancer Research Centre are also evident at the Manchester Institute of Biotechnology (MIB), an industry-interfaced interdisciplinary institute that is driving bio-based chemical synthesis. At MIB, 47 groups made up of 450 researchers with expertise in fields as diverse as chemistry, biology, material science, informatics, and medicine develop biotechnologies with applications in a range of industries. MIB has global influence through a network of national and international initiatives that are being driven by its research leaders.

Over its 10-year history, MIB has consistently made discoveries that translate into the real world. The institute works closely with industry partners and understands the importance of discovery through innovation in its research. Eight MIB spinout companies are evidence of this successful approach.

MIB Centres of Excellence such as the Synthetic Biology Research Centre for Fine and Speciality Chemicals (SYNBIOCHEM) engage in a constant dialogue with industry to ensure that the new enzymes and synthesis pathways they discover have real-world uses. "We want to solve problems that are relevant to industry," said Rosalind Le Feuvre, SYNBIOCHEM director of operations.

External partnerships

When paired with the scale that defines the university, this culture of prioritizing discoveries that impact the real world makes The University of Manchester the partner of choice for companies seeking academic collaborations.

Whatever the relationship, there is a focus on well-managed, quick, and fair negotiations to lessen the barriers between the university and industrial partners. For The University of Manchester, the collaborations enabled by this way of working are about more than securing a revenue stream—they are central to how the university defines itself and its relationship with the wider world.

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