



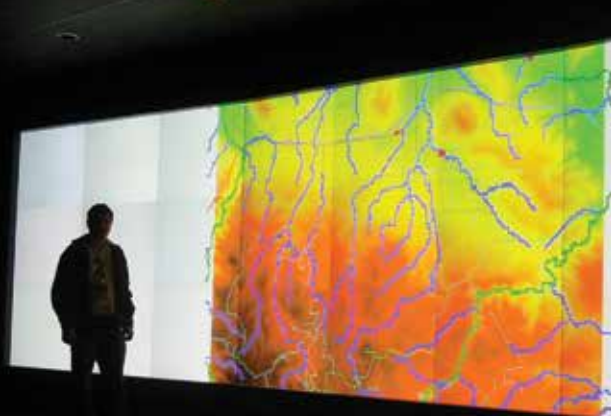
Scientific Research

The Need to Liberate Talents and Skills

By Munir Qazzaz



Birzeit University is committed to supporting research. University staff promotion is directly connected to conducting and publishing pioneering research. Although there is a small research budget that can fund some types of research, my field of research requires some sophisticated equipment and materials that are not easily accessible in the West Bank or within a limited budget. For many years I have tried to stay connected to academic research, and I have conducted some research projects with my colleague Dr. Abdul-Salam Abdul-Ghani from Al-Quds University. We have managed to publish some articles in peer-reviewed journals despite many obstacles. Over the years, however, I have come to know that we could do much better if we had the proper equipment and materials.



Supporting scientific research requires more than personal interests and talents. It requires interconnected relationships among schools, universities, and the private sector.

We could train younger researchers and explore fields that would not only contribute to pure scientific knowledge but also respond to specific needs in our society.

I have stayed in contact with a colleague of mine, Dr. Naweed Sayed, who earned a PhD at about the same time as I did from the University of Leeds in the United Kingdom. He and I had the same supervisor, but after graduation he decided to go to the University of Calgary in Canada. During the last 15 years he has managed to establish a world-renowned laboratory that conducts very specialised research that promotes our field of study. Dr. Sayed has access to a huge lab space and a substantial amount of funding. He also has the possibility to invite PhD students, postdoctoral scholars, and young researchers to conduct specific elements of the research. As a result he has won many academic awards and worldwide recognition of his work.

When I was eligible for a sabbatical year, it was Dr. Sayed who kindly agreed to host me. He has offered me a workspace and access to all available resources and materials at his lab. It has been a very exciting experience for me. I am able to pursue some research interests, gain access to colleagues' support and knowledge, and participate in the many conferences and lectures offered at the university.

I have come to realise that neither personal interest nor institutional support are enough to promote scientific research. The University of Calgary's huge financial support helps each school to advance its status and academic ranking worldwide. Researchers, like my colleague, have the support of the Canadian federal and provincial governments as well as the corporate sector and philanthropists which allows them to proceed with any research ideas they can think of. This is a luxury that neither my colleagues in Palestine nor I enjoy. In Palestine we must be very careful in managing any grant we get when we want to purchase equipment or chemicals. Sometimes we purchase the required equipment but it is held in Israeli customs for months and sometimes for years "for security reasons." At the University of Calgary, researchers have access to sophisticated rich libraries and opportunities to participate in international conferences – a researcher's dream. I am not able to maintain an active membership in the International Society for Neurochemistry or the International Anesthesia Research Society because

of the recurrent travel costs and conference registration fees.

The main difference between an ambitious university like Birzeit and the University of Calgary is simply the access to resources and materials – the ability to access unrestricted funds from multiple sources and the freedom to explore, research, and think freely without any constraints. The University of Calgary laboratory where I am doing my research has access to many other similar departments and laboratories that understand the benefit of integration and encourage the exploration of, for example, the connection between mechanical and electrical engineering and neuroscience.

It is understood at the University of Calgary that it is the responsibility and duty of senior faculty and staff to mentor and support junior faculty and new students, a rich experience that is much appreciated by both mentors and mentees. I have indeed benefited from this experience and have felt a sense of belonging to a research community whose members share common interests and goals.

The lab is also open to junior students from the university and high schools who want to explore their potential, or who are not yet sure whether they want to pursue a career in medicine or neuroscience. There are no constraints on these students; they can try some experiments and use chemicals. There are no worries about a damaged device that can never be replaced. We receive many visits from students, and every researcher feels responsible to talk to them about his or her work and encourage them to try some techniques. Schools create curious minds, and genuinely curious students and their teachers want to know how to practice science rather than memorise facts.

This interconnectedness between the schools, universities, private sector, and government is something we lack in Palestine. It is important to

understand that the foundation of scientific research is only built through a creative combination of connections, needs, curious minds, and know-how. It is a collective effort rather than separate individual efforts. This explains why most of our students excel when they go to study abroad. There is a system that inspires and supports individuals to nurture their talents rather than force them to swim upstream in order to prove their talents and abilities. Is this system hard to create? I do not think so. The prolonged Israeli occupation and the limitations caused by its practices are obviously a major challenge. But we can remove the walls surrounding our universities. We can open up to schools and the education system as much as we can open up to businesses and the private sector, thus creating an enabling environment in which curious minds can operate. We need unconditional budgets for research and we need to believe in our talents and skills.

During the 15 months that I have spent at the University of Calgary I have been able to explore many research ideas and try new techniques and methods. With the right equipment, none of them is impossible to implement at Birzeit. The University of Calgary is interested in building a stronger connection to Birzeit and donating some equipment and library resources. It is interested in student and scholar exchanges, something that we can easily follow up on while working to create the needed supportive environment for on-going research. My experience at the University of Calgary has been enriching, and I have learnt many new things that I am looking forward to implementing at Birzeit University.

Dr. Munir Qazzaz is an associate professor at Birzeit University. He is currently on sabbatical leave at the University of Calgary in Canada as a visiting fellow in the Hotchkiss Brain Institute-Faculty of Medicine. He also conducts research in the fields of physiology and neurophysiology.