PIONEERS’ NARRATIVES

UNIVERSITI MALAYSIA SARAWAK
With my postgraduate training at the Sir William Dunn School of Pathology in England, helming IHCM created a perfect avenue for me to help the Institute establish research work on infectious diseases in Sarawak environment. Given that there had been very little work specifically relating to infectious diseases in the state since the colonial days, I believed that the work that we would do at the Institute will contribute significantly to the community, especially in Sarawak. By being close to the local community and using advanced technology in researching infection diseases, we would have the upper hand in managing and controlling future outbreaks.

I am glad that I played a role in establishing the Institute because of the potential it provides to fellow academicians and researchers who are interested in conducting studies on infectious diseases in the communities. The Institute has become a place that allows researchers to share knowledge with their peers and students, ask specific questions about infectious diseases in the field, and help manage and contain the diseases from spreading.

The facilities available at the Institute has also helped us to train young people to start looking at the problems of infectious disease control, perform diagnosis and so on in our own context with a clear understanding of our priorities as well as responsibilities toward the people that we work with. It has expanded our capacity to become committed researchers. I am glad that throughout my stint at the Institute, my researchers refused to become mere specimen receivers. Instead, we collected our own samples and communicated with affected communities to better understand how they were affected by the disease.

The most difficult time whilst heading the Institute must be in 1997 during the outbreak of HFMD, affecting over 600 children in Sarawak, resulting in 29 deaths. As we were at our early stage of establishment, there was only a handful of us at the Institute doing PCR test, tissue culture, and ELISA test. We were yet to get everything up and running in terms of sequencing. Obviously, we were overworked...and there were other battles that we needed to fight, including that from the officials. We faced the old colonial attitude, the belief that only a group from the west would be able to get to the bottom of what was going on. However, we resisted and insisted that there should be specimens kept in the state as well.

Looking back, I am proud to be part of the early pioneer team of UNIMAS and to be part of the contributing force to the establishment of IHCM. Our team was instrumental in building our world-class facilities with highly trained staff. Fast forward 30 years later, the Institute has gone from strength to strength and gained recognition both at the local and global levels. Nothing makes me prouder than to see the Institute that I have helped to establish continues to play a vital role in conducting high quality research where researchers are dedicated to investigating the causes and diagnosis of viral diseases in the region. Most importantly, the Institute has become the link between the community and the state government of Sarawak when addressing health issues that are relevant to the people of Sarawak.

The UNMAS campus, being a vast, under-explored landscape of forests and swamps, was to be the first to be visited in search of frogs and reptiles.

We even found a caecilian here! It is a legless amphibian that most card-carrying herpetologists have on their bucket list. Over 60 species of amphibians and reptiles are now known from our campus, including a crocodile (some of which are often observed basking along the golf course on campus) and several turtle species.

I was the unofficial snake-removal guy on campus. Frequent calls were received during those early days for the removal of mostly non-venomous species, such as the Mangrove Cat Snake (Boiga melanota). The most difficult time whilst heading the Institute must be in 1997 during the outbreak of HFMD, affecting over 600 children in Sarawak, resulting in 29 deaths. As we were at our early stage of establishment, there was only a handful of us at the Institute doing PCR test, tissue culture, and ELISA test. We were yet to get everything up and running in terms of sequencing. Obviously, we were overworked...and there were other battles that we needed to fight, including that from the officials. We faced the old colonial attitude, the belief that only a group from the west would be able to get to the bottom of what was going on. However, we resisted and insisted that there should be specimens kept in the state as well.

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A view of the peat swamps from our offices in the UNMAS old campus. More than a pair of shoes have gone missing here.

We are a fair competitor to the biodiversity of some countries. The blackwaters of this peat forest are also home to several ornamental fish species, one of which was ‘lost’ to science, until it was rediscovered on campus, such as the Browns’ Fighting Fish (Betta brownorum).

We quickly got down to business, understanding the socio-political lay of the land – including developing research plans, forming collaborations, identifying research needs, getting research permits, and securing funding to start explorations and experiments.

The task of starting from scratch in establishing laboratories has its own hurdles – not only in terms of acquiring the hardware – chemicals, glassware, computers, PCR-machines, sequencers, and other high-tech equipment as well as developing a world-class library, but of a more pressing concern, the challenge in getting human resources.

Striving for inclusivity, we casted the net wide, recruiting local and international graduate students. Many showed great promise; some opting to...
stay on as staff, others remaining as collaborators and benefactors, responding in equal measure to our initial investments of time and other resources.

Looking back over two decades later, I feel that I have made the right choice of picking UNIMAS as the place to live and to establish most of my professional life. And the opportunity to return the favour to the people of Sarawak and Malaysia is, in some measure, a gift of education, and conceivably, of inspiration and hope.

SOWING THE SEEDS FOR FACULTY RESEARCH
Dr Mohd Azih Salleh

When the temporary campus in Kota Samarahan opened its door, furnished with plenty of space and promptly purchased equipment, the faculty began conducting laboratory classes as well as field-based research programmes. With Prof Laili’s steady steering at the helm as the Dean of the Faculty of Resource Science and Technology (FRST) and Prof Charlie’s insistent push and support as the Deputy Vice Chancellor for Research and Services, exciting research activities began to take off. Research expeditions, especially to biodiversity-rich parts of Sarawak, were organised with the involvement of the whole faculty. As the Deputy Dean, I was usually in charge of support plans and preparations.

The highlight was the expedition to the Bario highlands, which also attracted participation from peninsular-based universities.

To reach remote Bario, we took a commercial flight to Miri and then chartered local air services which employed the small propeller-driven Twin Otter aircraft for the short flight over the mountains in northern Sarawak. As I was admittedly not so well-versed at lengthy conversations to keep expedition participants continuously informed and entertained, Prof Charlie thought it would be better for me to be in charge of logistics. Hence, for the short air-hop from Miri to Bario, I was asked to accompany two technical assistants on the cargo flight carrying supplies and research equipment. The good thing was, I was given the seat just behind the co-pilot, who passed his headphones to me to listen to flight conversation between the pilot and the control towers. It was an exciting experience, tinged with just a little taste of fear when the little plane was approaching the Bario airstrip along a rather risky flight path between steep and rugged mountain sides.

Another major research project initiated very early on at FRST was sago research. I had the opportunity to be the research leader for this project. Sago has a special socio-political significance in Sarawak. On this account, the Sarawak state government granted an endowment – the Tun Openg Chair – for research on sago. This endowment assisted FRST in spearheading 124 many R&D projects on this important crop. The faculty coordinated field trips to large-scale sago plantations in the Mukah and Dalat districts. A special laboratory to unravel the biochemical processes involved in starch production in the sago plant was also set up.

Not long after we started this project, the Prince of Songkhla University in Songkla, Southern Thailand, organised an international conference on sago. Prof Charlie enthusiastically decided that he and I should attend. So off we went, meeting up with sago researchers from various countries, particularly Thailand and Japan, who were very interested to develop sago as a new starch crop. We learned a lot and developed various networks from the conference.

Of course, we also took the opportunity to explore the city of Songkhla’s street scenes during the free slots. Prof Charlie, being conversant in Thai, was at home roaming from street to street talking and bargaining with the roadside stall traders over things he wanted to buy and bring home. Being completely illiterate in the language, I found it a bit tiresome after a while, so I asked Prof Charlie if I could be excused and go back to our hotel on my own. He gladly said yes and gestured to me the route to take. Along the way afterwards, alone, I was approached by a couple of pleasant looking individuals, whispering something to me in Thai, which, of course, I did not understand. However, when they showed me glossy photos of some nice “merchandise” with gestures of some amounts of bhat, I finally figured it out. I was shocked and muttered to myself: Why didn’t Prof Charlie warn me about this! I walked as fast as I could to the hotel.

Two to three years down the road, with the faculty fully established and our university’s reputation abroad blooming, the top management thought it was time to link with international collaborators, especially on research activities. Prof Charlie had a special attachment to the University of Otago in Dunedin, New Zealand, where he completed his first degree. He was aware of the biotechnology-related research activities there and personally knew the lead researcher, Prof Dianne Hill. At that time, the university was hosting a major conference related to my area of research, and he thought that I should attend it and use that opportunity to establish contacts with a group working on livestock genome sequencing. It was thus that I found myself on a long flight to Dunedin. During the 4-day stay at the University of Otago, Prof Diane Hill arranged for me to meet with a few key people in her research group. The pinnacle of that stay was a luncheon with the Vice Chancellor. It was truly a great honour and a marvellous experience for a Deputy Dean with the rank of an Associate Professor to mingle with the highest echelon in the university, thanks to Prof Charlie’s reputation at his alma mater.