

WHAT ABOUT THE WEEDS?



Professor Everaldo Attard is perhaps one of the most eclectic persons Marika Azzopardi has met so far. His many hats are somewhat interlinked to certain facets of his life both professional and not, and yet all are somewhat distinct in character. So much so, this rich interview risked the requirement of a sequel. I meet him at the University of Malta, in his office from where he is not only an Associate Professor in Agricultural Chemistry & Pharmacognosy, but also co-ordinates the Division of Rural Sciences and Food Systems under the umbrella of the Institute of Earth Systems.

TS: CAN YOU TELL ME SOMETHING MORE ABOUT YOUR PROFESSION AND HOW IT DEVELOPED OVER THE YEARS?

I became a lecturer in 2001 after a long trajectory which kicked off upon my graduation as a pharmacist in 1994. My Master in Agriculture and Veterinary Pharmacy followed, which I completed in just one academic year. From research assistant I moved on to become assistant lecturer by which time I proceeded to acquire a Doctorate in Agriculture. I also held a temporary post as part-time consultant with the Department of Plant Health, and was eventually appointed Herbal Consultant for the assessment of herbal medicinal products. Presently I am also the Maltese delegate on the Committee on Herbal Medicinal Products (HMPC) within the European Medicines Agency and the Homeopathic Medicinal Products Working Group (HMPWG).

TS: I AM AWARE THAT YOU HAVE RESEARCHED A VERY UNIQUE LOCAL WEED - WHAT ABOUT IT?

Some years back my research was strongly linked to cancer research. Throughout my studies my focal point of research has been based on an indigenous plant with the common name of 'Faqqus il-Hmir' (alias *Ecballium elaterium*, alias

Squirting cucumber). Its anti-cancer properties came to the fore through my studies and elicited considerable scientific interest. Although it used to be a very ordinary 'weed' found growing prolifically around the Maltese Islands, it is nowadays less seen and only visible in abandoned areas. Although a common and nondescript plant in appearance, it intrigued me in that, although it belongs to the cucumber family and has pumpkins and melons on its family tree, it is of absolutely no culinary use. Indeed, its juice is especially bitter and toxic. However, it is a plant ingeniously armed to defend itself from all kinds of herbivores since once touched, its fruits will burst open and disperse a nasty tasting juice with seeds. This allows it to propagate itself in the process of self-protection. The only living creature which delights of its leaves is a ladybird with a specific identification name - the Gourd ladybird. Thus, back when I started my research of the 'Faqqus', its common presence and its self-defence technique interested me.

TS: ARE THERE ANY CURIOUS PAST AND PRESENT FACTS ASSOCIATED WITH THE 'FAQQUS'?

Yes, eventually I was to find out how, in olden days, the Maltese appreciated this weed for its laxative qualities and for the treatment of jaundice. At a certain point in time, it was actually exported to Germany for such purposes.

TS: WHAT IS THE STATE OF YOUR RESEARCH AT PRESENT?

My research eventually led me to conclude that while the anti-cancer properties of the 'Faqqus il-Hmir' do exist to some extent, its terpenoids have more potentially healing qualities in the treatment of neurological conditions. This deviated the course of my research and I am in fact presently collaborating with a Canadian research team carrying out ongoing studies in this regard. One of my most recent research contributions has

been the publication of a paper entitled ‘What are the Prospects of Treating Neurodegenerative Diseases with Natural Products?’ (co-authored by Maria-Grazia Martinoli). This paper was published in July 2017 by ECronicon Open Access. Another recent paper, co-authored with RitiAnne Spiteri, was published on the (Canadian) Journal of Agricultural Science and entitled ‘Determination of Major and Minor Elements in Maltese Sheep, Goat and Cow Milk Using Microwave Plasma-Atomic Emission Spectrophotometry’. The latter topic touches upon my interest in local agricultural products and the beneficial potential therein. My research embraces local honey, cheeselets, olive oil, milk and certain fruits. A key concern is how we seem to be only purchasing foreign fruits most of the time, as well as a considerable amount of vegetables, whilst somewhat putting local agriculture to the side. This is wrong and should be seen to.

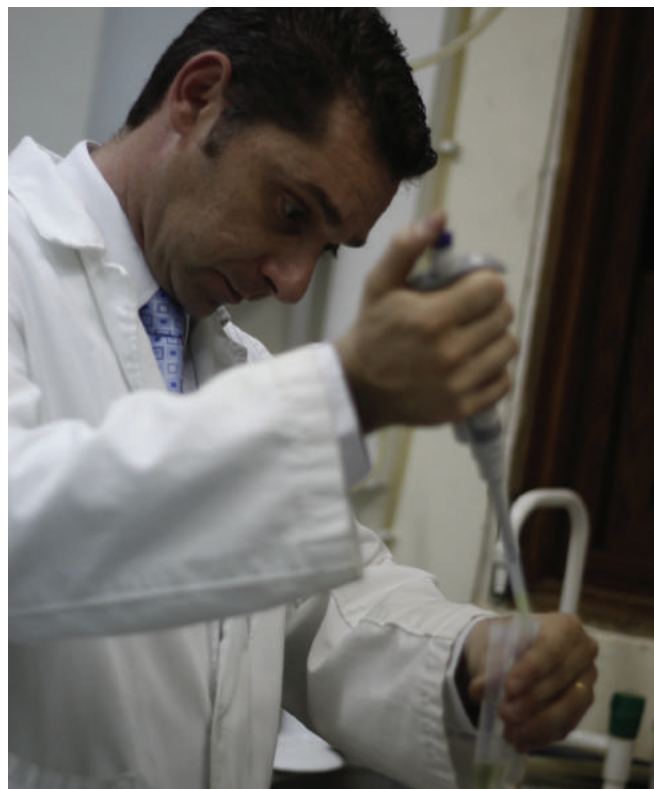
TS: SO WHERE DOES ALL THIS LEAVE YOUR PHARMACY WORK?

In reality I was a fully employed pharmacist for only six months upon graduation. I did locums for some time but nowadays, I keep abreast with pharmaceutical progress through my work with the Medicines Authority which places me on the other edge of the pharmaceutical spectrum. Such work relates to the assessment of herbal medicines, especially in the classification of borderline products. My presence at the HMPC in London and the HMPWG ensures that I keep working at making the two ends meet - the one part where nobody believes in the efficacy of natural products, herbal medicines and food supplements and the other part where nobody trusts the modern pharmaceutical product. Natural products are excellent for long-term use as long as dosage and follow-up are adhered to. But nothing beats modern medicinals for the efficacy in emergency intervention. Internet sources can be misleading and at times completely incorrect and this misleads the general public in thinking that natural remedies are good, always, all of the time.



TS: CAN YOU SPECIFY MORE ON THIS ASPECT OF NATURAL REMEDIES?

A plant growing in the wild may contain toxins and heavy metals absorbed from its environment and from the soil. Picking it up and using it, may be dangerous. Moreover one requires a good diagnosis and the right dosage for it to be effective.



TS: EARLIER ON YOU REFERRED TO HOMEOPATHY. WHAT IS THE STATE OF AFFAIRS IN THAT AREA?

One clarification should be made here - one still needs a medical degree in order to diagnose a patient before prescribing homeopathic remedies. This field is still ambiguous in medical terms and the scrutiny is on the dilution factor applied to tinctures. Homeopathy uses the same principles as vaccines; however, dosages are minuscule. Where dilution goes below the presence of molecules in the actual product, there is a strong element of doubt. There are however, entire hospitals for humans and for animals, which practise this type of therapy with success.

TS: YOUR WORK AND ACADEMIA DEFINITELY KEEP YOU BUSY. BUT IS YOUR LIFE ONLY AND UNIQUELY ABOUT SCIENCE?

Thankfully not. I find time to unwind by singing as a member of the Amadeus Chamber Choir directed by Maestro Brian Cefai. It all started when my son began singing in the choir. My wife joined, then my daughter, and somehow I got roped in as well. In actual fact I find it to be a great de-stressor, quite different from correcting papers and carrying research. And it is a good way to socialise. Indeed, I have met many singers who come from all walks of life ... even some acquaintances I never knew were actually in a choir. 🌟

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