



Special Editorial

Top Research in Malta 2019

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Dear Xjenza Online readers,

Four years have passed since my last Editorial of Xjenza Online in 2017 and with which I concluded my leadership as Editor-in-Chief. It is wonderful to see that Xjenza Online has continued to grow with the new editor Prof Cristiana Sebu and her fantastic editorial board.

The idea of editing a Special Issue of Xjenza Online came to my mind at the beginning of 2021 when I was contacted by the editors of Think, the University of Malta Magazine, with the good news of my having been listed among the top 2% of scientists in the world for Neuroscience, Neurology & Neurosurgery. Seven University of Malta researchers were listed as being at the top of their fields in 2019, and Think highlighted our work in an article entitled “Big Science in Little Malta” (Schellekens, 2021) a piece of news that also reached the local media (Carabott, 2021).

In fact, eleven scientists based in Malta—seven of whom are University of Malta academics—were listed among the top 2% most cited, according to a Stanford University study. These were, Joseph N Grima, Georgios N Yannakakis, Godfrey Baldacchino, Albert Caruana, Michael A Borg, Giuseppe Di Giovanni and Ruben Gatt from the University of Malta; Carmelo Scarpignato from the Birkirkara United Campus of Malta, Victor Grech and David Pace from Mater Dei Hospital and MCAST’s Mario Balzan.

This list of the most widely cited researchers in their fields was compiled by Prof John Ioannidis and his team at Stanford University. They analysed data from 1965 to 2019, covering around 7 million scientists in 22 major fields. The list identifies the top 100,000 scientists across all fields and was published in Plos Biology in 2019 (Ioannidis et al., 2019).

The idea to produce this Special Issue of Xjenza Online which showcases manuscripts by these Top Researchers and others was driven by the desire to acknowledge their contribution to the scientific development of Malta and

make their work and contribution known to the readers of Xjenza. My proposal was warmly welcomed by the Editor-in-Chief Prof Sebu and the President of Malta Chamber of Scientists Dr Gianluca Valentino and also from the authors.

In order to obtain a wider snapshot of the best science in Malta, I decided to invite not only the 11 researchers included in Ioannidis list (Ioannidis et al., 2019) but also the researchers listed among the top ones in Google Scholar User Profile rankings when you search for University of Malta (Google Scholar, 2021) where the scholars are listed according to the number of their citations.

Readers will find the first 10 invited articles in this first part of the Special Issue and the others will be part of the second issue of the Top Research in Malta.

The special issue opens with the contribution by Victor Grech (one of the Top 2% scientists, 4465 citations and an H-index of 30 in Google Scholar UM list) who summarised his work on the factors that influence sex ratio at birth with the most important being stress and sex-selective termination; gendercide, which has resulted in circa 130,000,000 missing women in the world. Additional factors include geographical trends, coital rates, radiation, secular trends and seasonality.

Ronald Sultana (Cited by 4514, H index 34) details his long (thirty years) and successful career outlining some of the key milestones of his academic journey in the three inter-related strands that mark his scholarship, namely the links between education, work and employment, teacher education, and international and comparative education. Sultana suggests that while steadfast work is the key ingredient to attaining international recognition in one’s field, luck, being in the right place at the right time, and the enabling influence of mentors are also important, as is the capacity of making the best of opportunities that arise. In his view, however, the litmus test of a successful career is the extent to which intellectual labour promotes the common good. I agree with his words and I am sure

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young researchers will find this article inspirational.

Godfrey Baldacchino (one of the Top 2% scientists, 6752 citations and an H-index of 42 in Google Scholar) contributed to the Special Issue with a reprint of his recent article (Baldacchino, 2021) "Origins and destinations: career paths of male and female academics at the University of Malta". There is still a glaring 'gender gap' amongst full-time academic staff at the University of Malta, with female Professors making up less than 20%. Men and women in Malta can today achieve similar career destinations in academia; and existing gender gaps are therefore likely to close with time (although it requires some decades), based on existing policies.

Lino Briguglio (Cited by 7425, H index 31) presents an overview of his work, mostly related to the Maltese economy, since the early 1970s. Interestingly, Briguglio ends his contribution with some considerations on the outcomes of research paper citations. According to Briguglio a paper should be 1) international dimension, 2) easily accessible online free of charge, and 3) seminal. Having one's work cited in the literature does not only carry prestige for the cited author but can also lead to material gains including securing a university position and getting promoted.

Peter Mayo (Cited by 5039, H index 31) defines himself as, an "engaged sociologist—a value committed one". During thirty or so years of career at the University of Malta, his has research focused mainly in sociological research, and specifically sociology of education research. The major influences of his work are Antonio Gramsci, Paulo Freire, some classical sociologists, Henry A. Giroux, Antonia Darder and many others within critical social and political thought.

Caruana Albert (Cited by 12609, H index 40) and Jirka Konietzny presents a study on the relationship between subjective norms and gambling intention and the possible mediation effect of spitefulness as an overlooked social behaviour. The study also investigates whether gender plays a moderating role. Caruana and Konietzny conclude that moderated-mediated regression supports the role of gender and the partially mediated effect of spitefulness in the relationship between subjective norms and recreational gambling intention.

Isabel Stabile (Cited by 2359, H index 20) with Alexia Grech and Sophie Hackenbruch present a research paper entitled "Students' Attitude towards Academic Misconduct Scenarios: A Review and Pilot Study". The study shows that medical students at UM behave similarly to those elsewhere in terms of academic dishonesty. Stabile and colleagues conclude by saying that utilizing only assessment of knowledge to determine academic progression may not adequately equip students with those char-

acteristics that would be expected of them as junior doctors. Jean Calleja Agius (Cited by 2939, H index 26) with Owen Galea and Nicoletta Riva authored a review on menstrual-derived stem cells (MenSC) particularly in premature ovarian failure and Asherman's syndrome. MenSC are cyclically available in large numbers and can be obtained non-invasively and cheaply. Furthermore, MenSC are not limited by ethical dilemmas since they are obtained from menstrual blood which is considered a clinical waste. These attributes make MenSC an attractive alternative to other conventionally used adult stem cells and consequently have attracted substantial interest in the field of gynaecology and regenerative medicine.

Mitterer Holger (Cited by 4187, H index 36) presents a research work on the acquisition of a second language (L2), in particular of its phonology, that seems influenced by orthography. Holger tested whether this pattern is due to a focus on orthography in most formal L2 education by testing Maltese learners of English. Holger observed that Maltese learners do not make a quantity distinction in English words with single versus double letters. This indicates that earlier results are due to the focus on orthography in formal education rather than an automatic use of orthography in speech processing.

The collection ends with the contribution of Giovanna Bosica, the most cited female scientist among the UM academics (Cited by 3814, H index 30) with a review on the Green Chemistry movement that has helped the industry become much cleaner. Green chemistry efficiently utilises (preferably renewable) raw materials, eliminates waste, and avoids the use of toxic and/or hazardous reagents and solvents in the manufacture and application of chemical products.

I would like to thank all the contributors that have made this volume exceptional, showcasing 10 of the most important acclaimed UM academics. I am grateful to these authors for their high standard of work and to the reviewers for their crucial help in the peer-review process.

I look forward to the second part of this Special Issue of Xjenza Online on Top Research in Malta and I wish all the best to all Maltese academics.

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