Clinical practice may be defined as the continuously evolving practice of communicating and applying research-based knowledge. Part of this is what I call 'the challenging factor'. Researchers and clinicians have to continuously challenge what is currently known with new findings heralded by joint collaborations between man and technology. The following are two such examples, both pertaining to oncology.

In the past few weeks we have witnessed the roll-out of the national HPV vaccination programme, which has followed other screening programmes including breast cancer. Interestingly during this period The Lancet published an interesting article 'The benefits and harms of breast cancer screening: an independent review'. The primary research objective was to compare the benefits of screening ie reducing mortality, with any possible harm incurred ie over-diagnosis. Overdiagnosis has been defined as 'cancers detected at screening that would not have otherwise become clinically apparent in the woman's lifetime.' The review was commissioned by the UK's Cancer Research and Department of Health and involved UK women aged between 50 and 70 years who are invited for breast screening every 3 years. The study found that there is a 20% relative risk reduction for women who accept to do the screening. It has also been estimated that for every



10,000 women (aged 50 years) who are invited for screening in the next 20 years, there would be 43 preventable deaths. However, interestingly during this period, there would also be 129 cases of breast cancer which would be over-diagnosed and treated. So apparently the ratio stands at 1:3. Obviously these findings have clinical and ethical repercussions. Hopefully a similar study is carried out locally since it would add to the knowledge repository in this important area.

Another interesting article has been published in December in Peptides, 'Nullomer derived anticancer peptides (NulloPs): Differential lethal effects on normal and cancer cells in vitro.' Nullomers are essentially amino acids which the human body does not code for, possibly because they are too toxic

or useless. The research team at Boise State University in Idaho have analysed several possible DNA sequences which could give rise to promising nullomers, finally arriving at 9R and 9S1R. These have been found to switch off breast and prostate cancer cells through mitochondrial impairment but do not have an overall sustained detrimental effect on healthy cells. What is more exciting is that whilst cancer cells became more sensitive to nullomers with time (possibly overcoming the question of resistance), exactly the opposite happens with healthy cells.

Ian C Ellul

WIN a weekend break for two at the Calypso Hotel

We at TheSynapse are continuously working to improve our services. We therefore interact regularly with our subscribers and target audience to assess how we can give them a better service.

We would like to announce and invite all DOCTORS, PHARMACISTS, DENTISTS and MEDICAL, PHARMACY and DENTAL students working or studying in Malta to participate in a survey which is intended to gather information on use of media by professionals and students in the medical field. The data will be used to provide better services by TheSynapse. All data will be anonymous.

The survey is divided into two sections - Section 1 is anonymous whereas you can use section 2 to participate in a draw and win a weekend break at the Calypso Hotel in Gozo. Filling Section 2 is optional.

Please complete this survey ONLY if you are either a medical doctor, pharmacist, dentist or a medical, pharmacy or dental student practising or studying in Malta. **You will find the survey on http://tinyurl.com/ts2012survey**

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