Murmur

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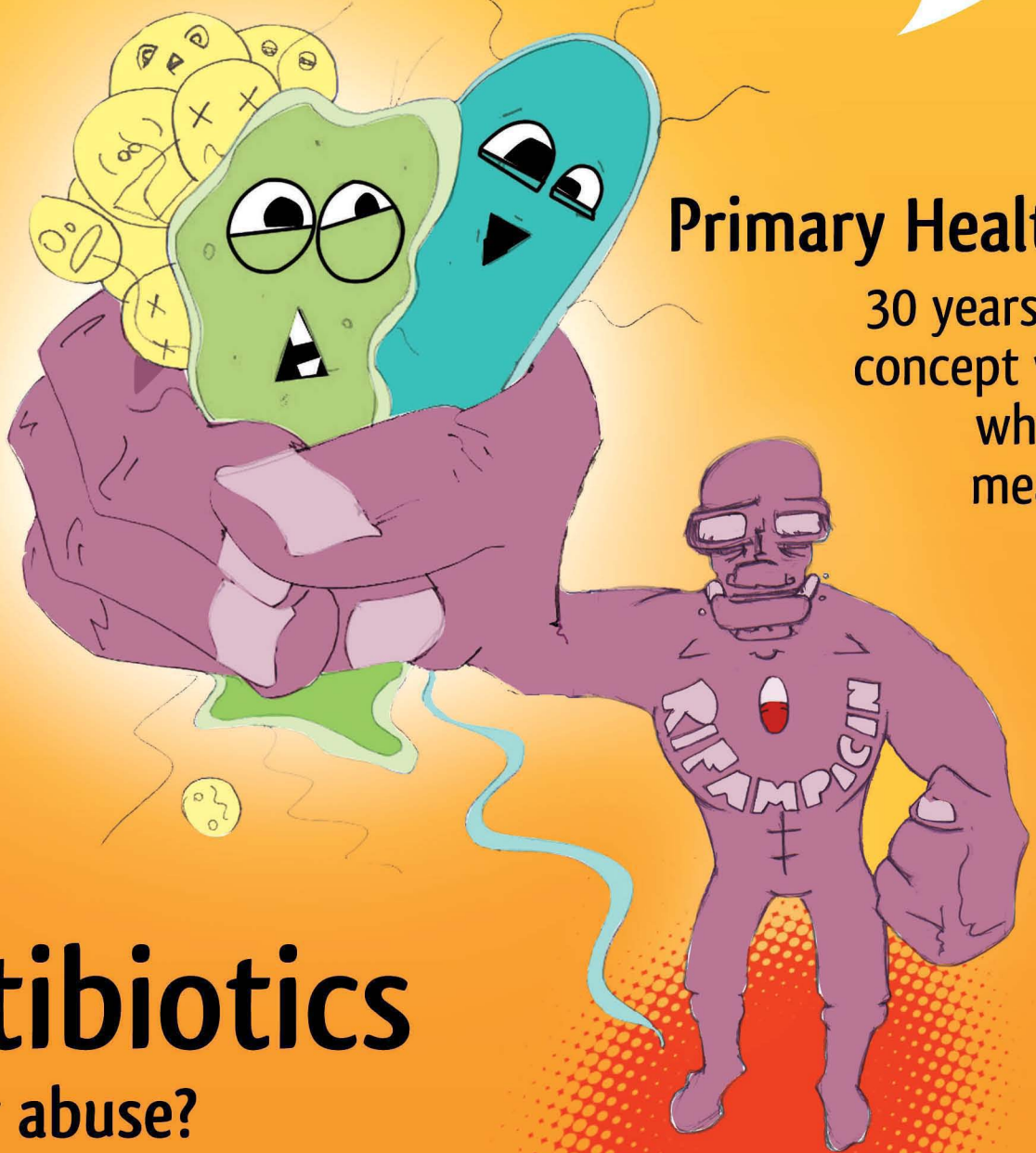

Primary Health Care

30 years after the concept was born, what does it mean today?

Antibiotics

Use or abuse?

Plus:
HealthFest survey, interviews, Foundation Programme, and more!

MMSA GOES INTERNATIONAL!

European Tobacco Control Meeting

Thessaloniki, Greece
9/10/08 - 12/10/08



European Youth & Reproductive Health - Youth in Action

Sofia, Bulgaria
13/10/08 - 18/10/08



HELP Workshop on CO testing

Prague, Czech Republic
27/2/09 - 28/2/09



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MMSA
Malta Medical Students' Association
www.mmsa.org.mt

Papier plus Studio

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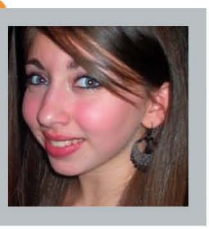
Editorial



"Think Global, Act Local"

Claire Vella

Another year has practically flown past. By the time you read this issue of Murmur, I presume you'll be all too intimately acquainted with your textbooks in preparation for the next slew of exams!

Yet, it's been a great year for MMSA, if I may say so myself, with a lot going on from the very start! Besides our usual projects, we've had some really refreshing new initiatives. The SCOPH eating disorders campaign, and the antibiotics awareness campaign and the MMSA HealthFest immediately spring to mind. SCOPH has also accomplished its goal on publishing its first publication – the Teddy Bear Hospital booklet – which already received very positive feedback from the paediatric consultants in hospital.

Sure enough, we've got articles on most of these new events on Murmur. Turn to page 8 for our article on a survey we passed round during HealthFest... And be sure to read a discussion on antibiotic use in Malta on page 29!

Much has been said that the University of Malta – the highest educational institution in our shores – is more concerned about being a centre of mass production of degrees and diplomas as opposed to a hub of innovation and research. Such discussions were fuelled thanks to newspaper headlines featuring Maltese academics making a name for themselves overseas. The latter half of 2008 has seen the success of Dr. Nicholas Sammut, research engineer on the CERN project, and also Dr. Johann de Bono and Dr. Gerhardt Attard praised for their prostate cancer breakthrough (read more about this exciting news on page 34!). This might explain why research is quite a recurrent theme in this issue of Murmur.

Still, research is a non-issue for a worrying amount of students, and lack of knowledge may be partly to blame for this. This is why we've invited the editor of the Malta Medical Journal, Professor Josanne Vassallo as a guest writer for a feature on research in Malta.

Nevertheless, all work and no play makes Jack a dull boy... And one thing which has been remarkable this year is the presence of MMSA members in the international scene. A special mention is deserved by Arlette Vassallo, who was selected to attend the UNICEF-WHO conference in Kazakhstan, marking the 30th anniversary of the signing of the Alma Ata declaration for primary health care. More information on that can be found here by reading her article on page 6.

Ultimately, I believe that the importance of these international activities is not just for the experience. Don't get me wrong – the experience is indeed fantastic! Such meetings have personally helped me take a deeper interest in what is going on in the world medically and culturally. By making friends with medical students from all over the globe, this awareness reaches a level that surpasses that of just knowing what's in the news. I think that is something really positive when one lives in a small island such as Malta! This is why I'd like to take some space in this humble editorial to encourage those of you who haven't had this terrific experience to consider attending an international event (IFMSA-hosted or otherwise)! In fact, the WorldHSS seminar is coming up this November in Alexandria, Egypt...

To wrap up, I would like to thank the writers and everyone who helped produce this issue of Murmur. I hope everyone enjoys reading this magazine as much as we enjoyed piecing it together!

Message from the President

Chantal Fenech

MMSA has once again proven its worth over a fun-filled year of ups and the obligatory downs. Most people learn to deal with these peaks and troughs... and medical students not only deal with them but appear to thrive in these environments. Each and every student has had to start with anatomical dissections and slowly but surely upgrade to the living thing. Without a doubt many experiences were shared both on and off the classes and wards. Gone are the days where watching medical dramas doesn't make us confirm or discredit the given diagnoses. Very few of us watch these dramas for their medical content and we only hope to have a similar working experience as is so vividly described on the screen.

Almost two years down the line and everyone is happily settled into the new medical school in Mater Dei Hospital with the teething problems slowly but surely being solved. As continued training opportunities appear to be improving then, we can only but state that MMSA has also made substantial improvements. MMSA has, once again, had a very good year with numerous continued projects, a substantial increase of MMSA participation in internatioanl events and other new projects such as the 'HealthFest' held in December last year which epitomised what MMSA stands for – education for the public on a variety of health-related issues.

Over the past year all the Standing Committees have worked tirelessly to organise projects for children, for refugees, for the general public and also for medical students. So many Teddy Bear Hospital "clinics", parties, training seminars, ethics seminars, exchanges, and concerts have been organised that I only wish I had more space to mention each and every one of them! I am sure that you will experience more of MMSA's projects within this magazine. How can you not!?

Every single child that smiles at our white-coat-wearing medical student makes it all worthwhile. Every person who is tested at our World Diabetes Day event is taking a step in the right direction. Every student that MMSA helps in securing an exchange to experience medicine in another culture is considered a success thanks to years of work and dedication by hard-working medical students. The future is being moulded by everyone who helped at some point over the past year and to each and every one of those people I extend my thanks. Once again MMSA scored as one of the highest organisations on campus and continues to maintain its undisputed profile all over university year after year. Without a doubt MMSA truly is the Most Marvellous Student Association.

As my term comes to an end, I would like to thank this EB for being a pillar of strength for one another and improving MMSA's image. I wish the next team the best of luck in their endeavours and trust that they will help MMSA grow to new heights.

MMSA is not the 16 EB members but it is the ever growing amount of medical students in Malta: be active, be constructive and enjoy the read!

Thank you to everyone who helped make this issue of Murmur a reality! To the writers, and everyone who contributed photos or helped with marketing. Special thanks go to the MMSA executive board for their unfailing support, and to Matthew Urpani for the cover design!

In October 2008, WHO and UNICEF held an international conference marking the 30th Anniversary of the signing of the Alma-Ata Declaration on primary health care. As one of 10 youth delegates chosen from all over the world, Arlette Vassallo discusses the relevance of primary health care today, more than 30 years after the concept was born.

Primary Healthcare, Now More Than Ever

On the 12th of September 1978 a groundbreaking document was issued in former Alma Ata, USSR. The Alma Ata Declaration – a vision of "Health for All" by the year 2000.

Today 1.1 billion people live on less than a dollar a day. 15 million children have been orphaned by HIV/AIDS. 700 000 people worldwide are trafficked every year. 1 in every 3 women is a victim of sexual violence. There have been 90 000 cholera cases in Zimbabwe since August 2008. Malaria kills a child every 30 seconds. 11 million children die every year from malnutrition. The list goes on. And on. And on. And on.

The International High Level Meeting held 30 years ago was the brainchild of Dimitri Venediktov, the Minister of Internal Affairs for the Department of Health of the Soviet Union. It was the first international collaboration between UNICEF and WHO bringing together 134 countries, 67 international organizations and a multitude of NGOs.

The outcome was astounding. It was the first time that the definition of health as articulated by the Croatian public health pioneer Andrija Stampar and adopted by the WHO constitution, was established as a fundamental human right.

The declaration put forward primary healthcare as the essential approach in eliminating existing inequities in health. It spoke of primary healthcare as being appropriate, acceptable, affordable and above all available and equitable.

Regrettably, the declaration also gave rise to a lot of misconceptions primarily due to lack of follow-up and

Above and opposite: Delegates at the WHO-UNICEF conference in Almaty, Kazakhstan in 2008. Arlette Vassallo can be seen above, far left.

"Today 1.1 billion people live on less than a dollar a day. 15 million children have been orphaned by HIV/AIDS. 700,000 people worldwide are trafficked every year. 1 in every 3 women is a victim of sexual violence. There have been 90,000 cholera cases in Zimbabwe since August 2008. Malaria kills a child every 30 seconds. 11 million children die every year from malnutrition. The list goes on."

promotion from governments and international organizations involved. This resulted in the coining of terms such as 'essential healthcare' and 'basic healthcare' inferring that primary healthcare is a lower level of care than standard secondary and tertiary care. It also implies that primary healthcare is a quick fix for developing countries. These misconstructions gave rise to misguided projects such as GOBI and GOBI-FFF (growth monitoring, oral rehydration, breastfeeding, immunization; female education, family spacing, food supplements).

30 years later WHO and UNICEF together with heads of state and ministers of health convened in the Mecca of primary healthcare in October 2008 in Almaty, Kazakhstan. It was preceded by a number of regional meetings all regarding primary healthcare. The resounding conclusion was that the elements of the Alma Ata Declaration are as relevant today as they were 30 years ago.

There is now a global paradigm shift in the approach to healthcare in general. Vertical approaches targeting diseases in a vacuum have been abandoned for a more comprehensive approach that tackles the economical, political, environmental and social determinants of health.

As articulated by Dr. Margaret Chan at the last WHO Executive Board meeting, the health problems all around the world are increasingly shaped by three common conditions of modern life: demographic ageing, rapid unplanned urbanisation and globalisation of unhealthy lifestyles. Primary healthcare aims towards disease prevention through the consolidation of all policies globally and through the implementation of an adequate and sustainable primary healthcare system.

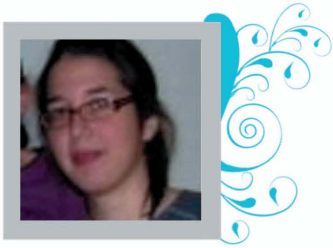
Lamentably, the school of medicine in Malta still adopts a conservative approach that excludes any form of global awareness in the methodology adopted. It is almost exclusively focused on secondary and tertiary care. Worse of all, the module that tackles primary healthcare is solely limited to one branch of this extensive slant, that of family medicine.

This excludes young Maltese doctors from actively contributing towards national and global development in healthcare systems. It denies medical students and young doctors the opportunity to contribute to policy making and to the planning, the implementation and the monitoring and evaluation of the healthcare system. It also positively reinforces a narrow understanding of primary healthcare as being confined to family medicine and as being a provision of healthcare that is of lower quality and of less benefit to our community.

The inclusion and enforcement of primary healthcare within medical education has become of the essence. The primary healthcare approach seeks to empower the individuals and to reinforce the household as the fulcrum of healthcare. It is an approach that brings healthcare away from the confines of the hospital walls and back to the people.

Doriella Galea presents the results of MMSA's HealthFest survey, and comments on the Maltese healthcare system - what, according to the public, are its failings and strengths?

MMSA's HealthFest survey



Health care has been in the fore front in our society not only as a political issue but also with the opening of Mater Dei Hospital in 2007. Many described it as a great step forwards in the health care system, but is this transition really an efficient one?

The *Murmur* team set out to investigate this. During MMSA's HealthFest event in Valletta, on the 8th December 2008, we hit the streets, asking people what they like and dislike about the current system, and what they would change if they had the power to. We collected 83 surveys – here are the results.

Many people admit that the new advances in Maltese health care are not sufficient. Even though about 32% said that they had no problem with accessing health care, the rest admitted that they had encountered problems. The major complaint was about waiting lists for medical investigations and procedures, which besides being too long, make it very difficult to set an appointment at Outpatients or the Dentistry clinics. Furthermore, many complained about the timing of the appointments. Why fix an appointment at 8 am with no chance at all of being visited before noon? Why are such delays happening so often?

Fig. 1: Medical students at MMSA's HealthFest on Dec 8, 2008.

A more serious aspect would be that of the Accident and Emergency department, where the long queues may be detrimental to the patients' health. The situation is putting unnecessary pressure on the medical staff. Being human, these would have an increased likelihood of misdiagnosis or other errors. Moreover, if the severity of one's condition is not immediately noted, it might lead to irreversible damage to the patient. Also, unnecessary calls to Casualty result in delays in ambulance arrival, with obvious serious consequences. Fortunately, recent media campaigns educating the public on the appropriate use of the emergency department are a step in the right direction. Such difficulties may be overcome if everyone is less egoistic and tries to see other alternatives such as calling one's family doctor or possibly going to the nearest polyclinic. Such a decentralization process would be of great help in improving the health care system.

Despite this, many lamented that polyclinics are not efficient. Amongst the suggestions there was that these should have longer hours and perhaps increased facilities and equipment to carry out a number of investigations. Moreover, some argue that it is of no use even visiting the polyclinic, as after being seen by a health centre doctor and being referred to Casualty, another doctor would repeat the same tests at the hospital instead of proceeding from what the doctor at the polyclinic had decided. This highlights the fact that there should be better communication, which

would save time and ultimately monetary funds. It would certainly help in decreasing queues!

The introduction of the Pharmacy Of Your Choice scheme, also aimed at decreasing queues in health centres, was seen by many a further step forwards in the health care system.

Many suggested that there should be better human resources management. An increase in the number of staff would certainly help in decreasing the stress and pressure put on employees. Certainly the long shifts do not help tired doctors do their job well! The lack of human resources has negative effects on those doctors and healthcare staff facing the day-to-day problems at the hospital. The public is well aware of this. Some interviewees were even in favour of a forced housemanship on the island!

The new Foundation Programme will certainly help the situation, and house officers will be able to have a certified demonstration of their gained experience in two years.

The medical staff's crucial role is also shown by the fact that a number of interviewees suggested that, since they would be the ones who know most what is the best for the patient, they should be given a greater responsibility in deciding how the monetary funds are best to be used for the patient's well being. Keeping financial problems at an important level, one must also encourage good use of resources by trying to avoid useless tests and investigations for the patient to undergo.

As expected, the large majority, 90 %, fully agreed or agreed somewhat with the fact that services at the hospital should be paid for from the citizen's contributions. At the same time 55% of those interviewed admitted that certain patients who might be well-off should be made to pay for the services. However other questions arise: "Is this justifiable? What would the parameter be?" Such a dividing line is difficult to establish and in such a small society. Controversy would be unavoidable especially because the majority falls within the middle class. Others suggested that certain procedures should be paid for.

The CAGE Questionnaire

1. Have you ever tried to, or felt the need to, Cut down on your smoking?
2. Do you ever get Annoyed when people tell you to quit smoking?
3. Do you ever feel Guilty about smoking?
4. Do you ever smoke within one-half hour of waking up (Eye-opener)?

Two "yes" responses constitute a positive screening.

Fig. 2: The CAGE questionnaire

But which would these be? This is another crucial question as everyone would defend their own needs as being of primary importance and which should be paid for by the citizens' contributions. The recent debate over whether trastuzumab (Herceptin®) should be given free-of-charge to a select number of breast cancer patients springs to mind.

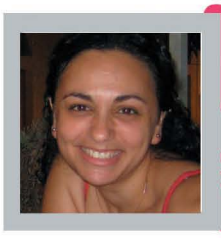
Conditions arising from an unhealthy lifestyle are a huge burden on our health care system. In order to decrease the predisposition to certain conditions, educational campaigns are the only hope in reducing the numbers of affected individuals. This applies to the increasing problem of obesity, diabetes and smoking. Smoking is still a very worrying public health risk in Malta, and of the 83 people who answered our questionnaire, 29% professed to be smokers. Furthermore, 80% of these tested positive on the CAGE questionnaire (Fig. 2), meaning that they show signs of tobacco addiction.

More preventive campaigns need to be put forward, however as a whole one must admit that the majority of Maltese are happy with the health care system. The launching of screening for breast cancer is also another great step forward in trying to combat such conditions and improving the Maltese health situation. Our health care system is trying its best to adapt to the increasing necessities with its very limited resources, and this effort is recognized by the Maltese public.

Ed: Thanks especially to Dr. Jonathan Mamo for drafting out this survey and to Martina Falzon for all her help!

Claudine Micallef interviews the new heads of Anatomy and Physiology to see what changes are in the pipeline.

Talking Heads



Professor Gary Hunter
Physiology and Biochemistry

CM: What is your personal background?

GH: I was born in London where I lived and was educated until going to Liverpool to read for an honours degree in Biochemistry. After that I studied the effects of chemotherapeutic agents which I chemically synthesised on cyclase enzymes and cultured lymphocytes for my Ph.D. at Warwick University and then moved successively to Leicester (RNA metabolism during the cell cycle), Cambridge (DNA-protein interactions in viruses) and then Cranfield University (cloning for recombinant human protein expression). It was at Cranfield I met Joe Bannister and Thérèse Agius. The rest, as they say, is history. I have two daughters, Emma (13) and Judith (11).

CM: Your professional background?

GH: I now study oxidative stress with a particular interest in superoxide dismutase enzymes. They are metalloenzymes and we want to find out how they work, especially how they select their metal cofactor and why they work with that specific metal ion only. We are proud to have been the first to solve the molecular structure of two manganese containing enzymes from a nematode worm, having already been the first to isolate and sequence the genes and cDNAs here in Malta. This nematode is an interesting research model as it is a homologue for many human diseases.

CM: What made you choose academia as your profession?

GH: I suppose it chose me. I enjoyed my time as an undergraduate and discovered I had a talent for bench work. During the course of my career I've always been happy to get my hands dirty, especially if it involves using some big machines to solve intricate problems. You often need to think on your feet and research can be very rewarding.

CM: What does your role as Head of Physiology and Biochemistry Department entail?

GH: Essentially the head of department coordinates the lecture programs and arranges that the examinations go according to regulations. He should also be a link between the lecturers and students. In a research department such as ours it's also necessary to try to ensure that the research staff get the support they need from the department.

CM: What major challenges did you find on taking on such a responsibility?

GH: My first responsibility was to find a lecture room large enough for all our first year students! The most significant challenge has been in the implementation of new rules and regulations regarding examinations. There are plenty more challenges coming up when considering the new curriculum, and the introduction of more computer facilities in our teaching.

CM: What do you think of the current academic standard of the medical course in Malta?

I'm proud to say that the Malta medical course has always been of the highest standard and of the highest standing with our British counterparts.

CM: Are you satisfied with the way and extent current students are being exposed to physiology and biochemistry?

GH: No, not really. There are always arguments for and against a purely scientifically taught course for these subjects in medical schools. Personally I would like to see much more in the way of discussion tutorial sessions, covering all topics. It is not going to be easy to implement. It is quite a daunting task to find the times and the places for such teaching to be carried out. It will take some cooperative coordination between departments. I would also like to see something in the way of clinical physiology practical sessions that will complement the lectures.

CM: Are you considering any changes within the Physiology and Biochemistry Department in the near future? If yes, would it be possible to illustrate some examples?

"At times I get the impression that students are only concerned with examinations and forget that they need to know all areas of physiology in the coming years. Also it is important to enjoy student life while you can."

GH: I'm hoping to persuade my colleagues to use internet facilities more and more as these become available. Moodle (The University's virtual learning environment) is not used at all in my department. This needs to change. The new Medical School website is slowly going live, and I hope my department will be able to make use of its pages in a useful manner. Getting information to students via notices (mirroring our current physical notice boards) is just one way to improve communication between the department and its students.

We also will inaugurate a computer laboratory in the department this year. This holds the promise of computer based learning, testing, tutorial sessions and simulations for all. I have already mentioned the possibility of introducing practicals once more and in some cases computer simulations might be a more economic solution. It would be nice to see a research component introduced at some stage, but this requires a lot of planning - maybe it will be possible in the future.

CM: What do you think of the current pre-clinical groups of medical students?

GH: Apart from the sheer numbers of students now entering the medical school each year, there is not much difference between these and previous groups. It is always interesting to see the change in attitude and responsibility as students progress through the course.

CM: Is there any advice that you would like to give them?

GH: Concentrate and work hard. Five years may seem like a long time when you begin, but it soon passes. At times I get the impression that students are only

concerned with examinations and forget that they need to know all areas of physiology in the coming years. Also it is important to enjoy student life while you can.

CM: Do you have any other passions apart from the medico-academic world?

GH: Aircraft and photography. I hold a silver C gliding license with a few hundred solo hours, but have not flown for a long long time. I also enjoy developing and printing my own black and white photographs. I like playing the guitar.

Dr. Pierre Schembri Wismayer
Anatomy

CM: What is your personal background?

PSW: I am 41 years old. I am married to Svetlana, who is a biologist, and we have two children, Keiran who is three years and Holly four months. I come from a family of five siblings, and both my parents and one of my sisters are medics. Being part of a large family, all members of which are highly opiniated, I was brought up having to learn to make my point clamorously and as quickly as possible, which has resulted in my current mode of speech which you students sometimes find difficult to follow.

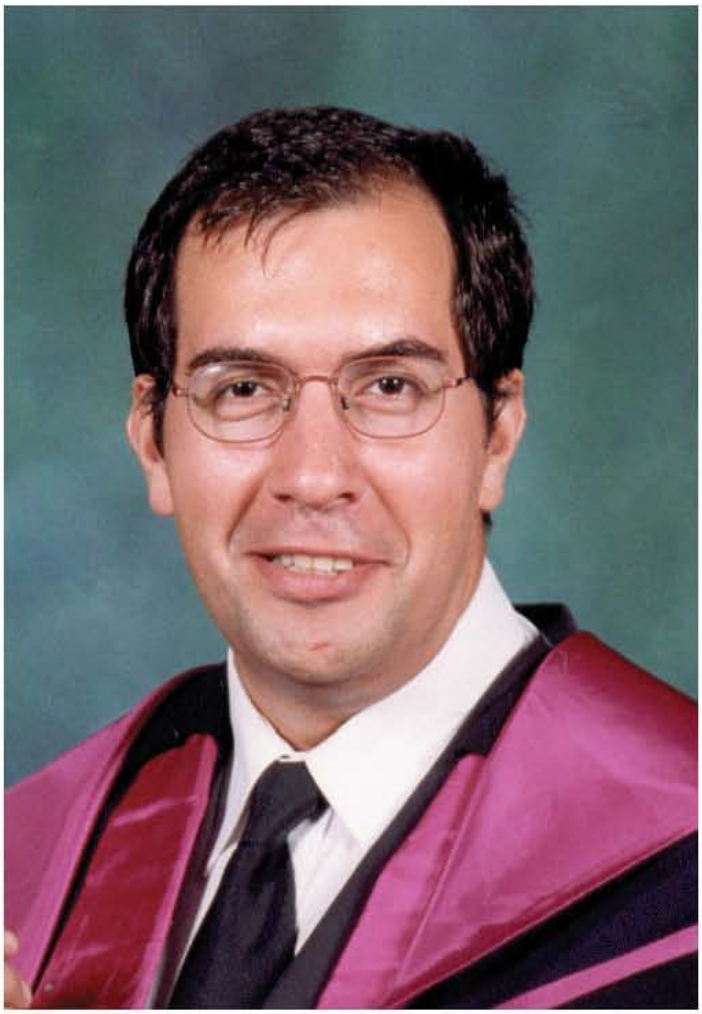
CM: Your professional background?

PSW: I graduated as a doctor in 1991 from the University of Malta. During my university years, I served some time both as a Student Representative on the Faculty Board and as MMSA president. I then did my housmanship in medicine, surgery, paediatrics, orthopaedics and ophthalmology which I liked very much. I also worked in Gozo, which I did mainly to avoid Obstetrics and Gynaecology, which was not one of my favourite disciplines. I actually enjoyed Gozo, which was basically like Casualty, very much. From my first two years in medicine, I was already becoming very interested in molecular biology. I was particularly inspired by a Fulbright scholar, Professor LeRoy Kuehl, who at the time taught us biochemistry, and I soon started to realise that many future cures will probably originate from this field of medicine. So I then decided to continue my studies in that area, and thanks to a Commonwealth Scholarship, I read my PhD. in Glasgow, specifically in cellular cancer research.

In 2002, I became a member of the Maltese College of Pathologists through my speciality in genetics (I am also registered as a Genetics specialist), and for a short while, I was also a member of the College of Family Practitioners.

CM: What made you choose academia as your profession?

PSW: It was mainly the influence from Professor LeRoy Kuehl, but since I was quite young I have also been a



rather inquisitive person who likes to ask and do different things. I also enjoy doing things that are somewhat different from the usual; something which has resulted in extensive taunting from my brothers and sisters.

Then again, I never really thought of academia as being my sole profession, since I had always wished to do research at an academic level, but to be able to apply it clinically. But I found it difficult to carry out research and be a clinician at the same time on this island, particularly due to the lack of specialists in the field, and I would have probably ended up spending too much time in hospital with no time for research. So instead of trying to do both at the same time with the risk of diminishing my quality of work in either one of the fields, I chose to go into research. But at heart I am still a doctor, and I tend to do research which has clinical applications.

CM: What does your role as Head of Anatomy Department entail?

PSW: To be completely honest, I am still learning! But most of the job basically entails managing the curricula, although on this aspect I have been very lucky since sterling work has been done by the previous Heads of Department, Professor Camilleri Podesta and Professor Cuschieri, both on the curriculum itself and also on expanding our methods of teaching. The latter I think are very helpful, in particular the living anatomy and critical thinking sessions.

The job also involves the day to day running of things. Then there are also the official responsibilities which involve my representation in boards, in particular the Faculty Board, the Examination Board and Departmental meetings. I also need to coordinate the academic and non-academic staff. There is also the very important task of assessing budgets, staff requirements, research requirements, and to make the necessary requisitions to the university administration.

CM: What major challenges did you find on taking on such a responsibility?

PSW: One of the things I felt were important was involving the non-academic staff more, who are, luckily for me, a very good team and are working very well. Another challenge was trying to make optimal use of the various skills of all the academic staff.

I am also taking on the challenge, through the combined work of all our staff, of creating a cataloguing system with a database complemented with photos of the prosections in the dissection room.

Also, like the rest of the departments, we are now undergoing the process of what is being referred to as the 'migration of the websites', where the idea is that all websites related to the University of Malta have a standardised format, and not a piecemeal arrangement, like it presently is.

CM: What do you think of the current academic standard of the medical course in Malta?

PSW: I think we have a high input of quality students, and the graduate students, both foreign and local are helping to improve this. Although most students have a high academic effort, they are too exam driven, with the counter-effect of being less self-sufficient and mature. This is also where the graduate students are helping, since they bring with them and share their experiences from their particular field.

The method of teaching, in particular the living anatomy and critical thinking sessions, I believe are also essential to help develop the students' thinking skills. There might also be a weakness in the way students are chosen to get into the medicine course, where locally, as we only use the A-level results as a tool. It should also be kept in mind that sometimes people who do not do exceptionally well in the course, then do very well clinically, and vice versa.

"I think that we have achieved a good balance between excessive detail which is not of much use and important clinical correlations and applied anatomy."

CM: Are you satisfied with the way and extent current students are being exposed to anatomy?

PSW: Yes, I think that we have achieved a good balance between excessive detail which is not of much use and important clinical correlations and applied anatomy. Maybe some areas like Histology, Cell Biology, Embryology, Head and Neck and CNS still need to be modified further. Anatomy theory also still needs to be integrated more with the teaching from other departments, in particular the Physiology Department, but we are already moving in that direction.

CM: Are you considering any changes within the Anatomy Department in the near future? If yes, would it be possible to illustrate some examples?

PSW: As I already mentioned, I would like to have the dissection room organised and catalogued. A lot of work is already ongoing. I would also like to see how to reduce the amount of formalin and phenol in the cadavers, the former being carcinogenic long term and the latter being very irritating on exposure.

I would also like to upgrade the X-Ray specimens used mainly for the Living Anatomy sessions. I would hopefully like to get access of digital, anonymised images, such as those used at Mater Dei which we can use for teaching purposes. This is important because we feel there is the need for students to be exposed to imagery more, especially since it is the way that they will be exposed to anatomy in clinical practice.

Other things not directly related to your immediate teaching is trying to expand the post-graduate teaching by means of anatomical training courses for preparation of FRCS etc., and also continue on our international graduate training. We already have some foreign surgeons making use of our department in this regard. In fact a cadaver freezer was recently donated to the department as part-payment for offering the premises, where we can store cadavers without using formalin.

Since a large area of research carried out within the department is related to tissue culture, we are also thinking of changing our current Meeting Room into a Tissue Culture Lab. The current labs that we are currently using for research are being over utilised, and we need to expand, hopefully reaching out to other courses such as Pharmacy and Medical Lab Science.

"We feel there is the need for students to be exposed to imagery more, especially since it is the way that they will be exposed to anatomy in clinical practice."

Also, since we now have fresh frozen cadavers, it would be ideal to utilise some of the structures from these cadavers for research. One example would be utilising decellularised collagen skeletons of some tissues, for example the skin, and culturing new tissue on the collagen matrix which may then be utilised clinically.

CM: What do you think of the current pre-clinical groups of medical students?

PSW: Very sexy – only joking – good bunch. Both first and second year groups are well motivated, have taken to the new methods of teaching well and really want to learn. The fact that the first years are a big group causes some problems though since we have limited staffing levels and rooms which are not large enough.

CM: Is there any advice that you would like to give them?

PSW: Yes. Primarily, pick and choose what you study; do not study all areas in equal detail in all subjects. Try to be aware of what is more important and spend more time studying that. Secondly, make sure you have friendships and support systems to help you through the bad and hard times. Try to avoid excessive competitiveness and learn to work with others. Remember that in clinical practice you will have to work with a lot of different people, even with those you do not get along with so well. Lastly, do not take life and especially exams so seriously. As my dad used to tell me and I now tell to you, "what one fool can do, any other fool can do". In other words, you can make it through the course.

CM: Do you have any other passions apart from the medico-academic world?

PSW: I have a particular passion for science education. I am currently involved in a series called "X-Lab" which is being broadcasted on television, with the aim or encouraging young children and youths to take up sciences, which I think is also important for our local economy.

I have a passion for voluntary work in Africa, where I went to work for some periods. I and some colleagues have also created a "Share Foundation", information on which can be accessed through my website, by which we try to help run projects in Kenya, in collaboration with other international foundations. We are currently working on some dentistry projects and education. We are particularly in need of dentists, so if there are any interested dentists reading this, kindly contact me.

I also enjoy gardening, which I find very relaxing, snorkelling and the sea. Since childhood, I was always interested in all kinds of animals, including bugs which I used to conserve in formalin.

My wife and kids are also my passion. Probably the thing I most purely enjoy every day is Keiran running at full speed from deep inside the house to greet me with a hug and kiss as soon as he hears the key turn in the lock as I get home.

For the future I would like to try scuba diving and micro-light flying, although for the latter I would have to lose at least a third of my weight for the micro-light aeroplane to hopefully lift off!

The Teddy Bear Hospital Booklet!

On behalf of the SCOPH team I proudly announce the publication of the Teddy Bear Hospital Booklet. This is a project that has been going on for almost four years. It was Anne Marie Busuttil who first came up with the idea of writing a booklet containing some basic but important information regarding Child Health and the most frequent diseases that they go through while growing up, as an aid or reference to parents of these young children.

Since then, a team of medical students compiled information ranging from basic First Aid to asthma, influenza and other infections, as well as behavioural disorders. Unfortunately, plans for completing the booklet were pushed aside for a while and it was only last summer that the SCOPH team started to work on completing the booklet once again. The first step was getting the booklet reviewed and edited by an expert in the field of paediatrics and in this we were very generously helped by Prof Simon Attard Montalto who corrected and improved the information we had included, very diligently. The editing took a lot of our time but given the final result it was all worth it.

After a year of very hard work we have finally printed 5000 copies of the booklet, in full colour and in a very good quality. We have started to distribute the booklet at several schools where TBHs were held throughout this year and we are receiving some very positive feedback. We have also given copies to all the Heads of Departments in our Faculty and sent booklet to IFMSA and to all our sponsors. Hopefully, the rest of the booklets will be distributed around Malta and Gozo in future TBHs.

My special thanks go to Karl Cutajar who helped me so much when it came to the editing and implementation of all the changes the booklet needed throughout the year. I would also like to thank all the sponsors, co-authors and designers of the booklet and especially Prof. Attard Montalto, for all his help and support throughout this year.

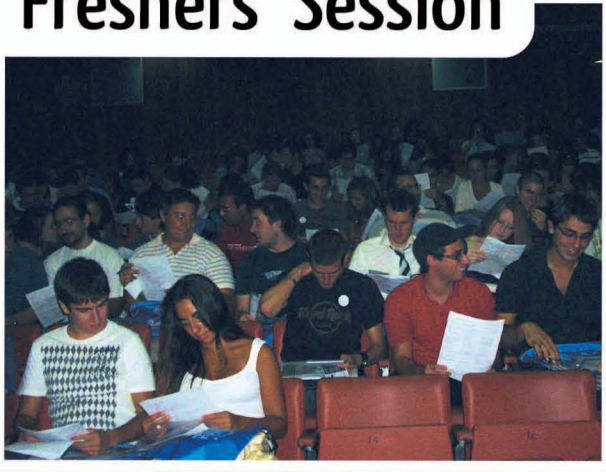
Darlene Muscat

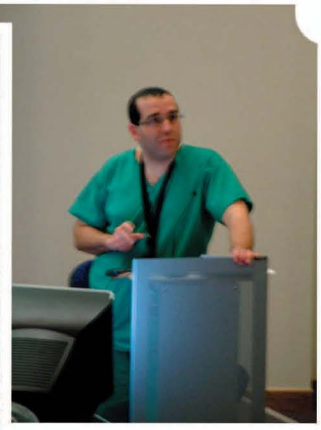
SCORP

Human Rights Week

Peace Test

Freshers' Session





Careers Convention

SCOME

Leisure

End of Summer Party



Christmas Party





Hollywood


S-Party



Paintball

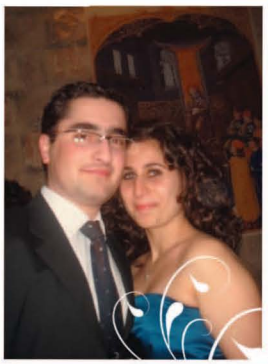
Football tournament



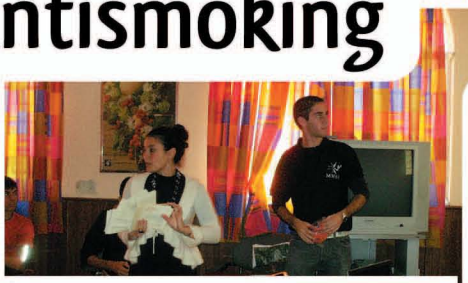

Basketball tournament

Ballo Dei Medici






Antismoking



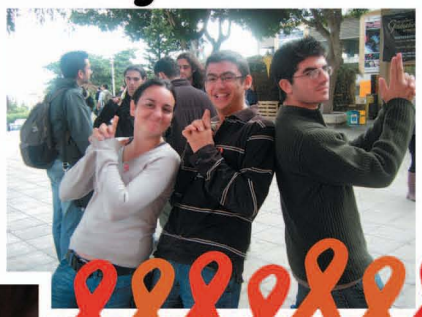
Eating Disorders Campaign

World Diabetes Day

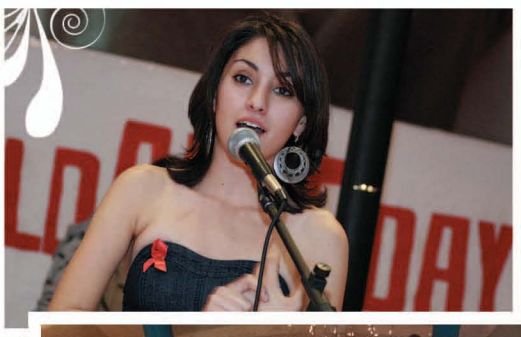
SCOPH

Christmas Presents for children at Mater Dei

Pjazza Cafe'



Exposed and Unplugged



Candle Vigil

Peer Education

The Genital Affair

SCORA

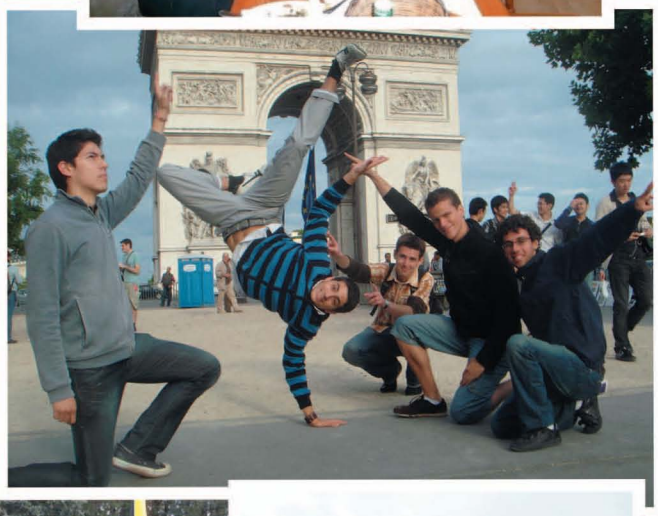
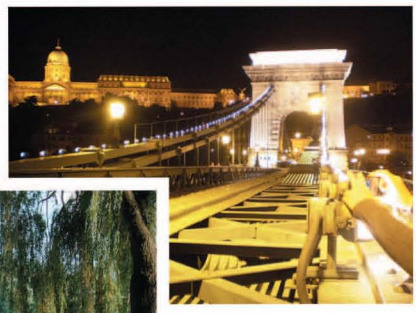
Exchanges: In

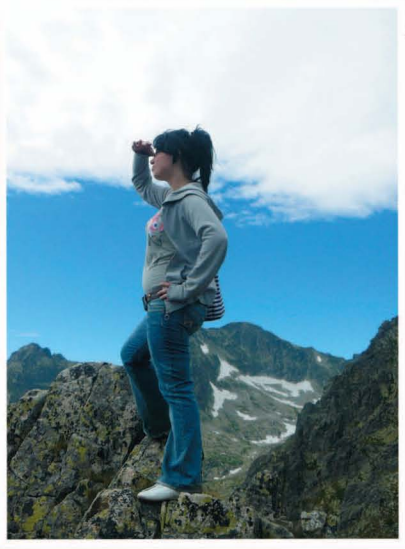






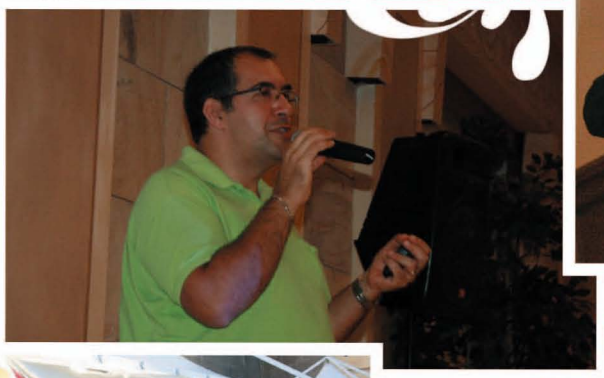


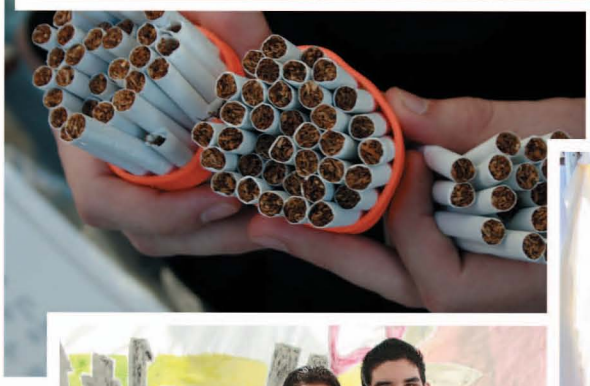




Exchanges: Out

TRD





HealthFest

Christine Azzopardi and Marquita Camilleri explain what's happening now and what's in the pipeline for Maltese medical graduates.

Signing up to the UK's "Gold Standard"

The Foundation Programme in Malta

The Foundation Programme (FP) is a two-year structured programme of workplace-based learning for medical school graduates that forms a bridge between medical school and specialty training. The programme aims to provide a safe, well-supervised environment for doctors to put into practice what they learned in medical school. This programme, described by Dr. Joe Cassar as being "the gold standard for medical training in Europe", was implemented in the United Kingdom (UK) in 2005 and is administered by the UK Foundation Programme Office (UK FPO).

Why do we need the Foundation Programme?

Secondary to the brain drain which struck the Maltese islands in the past few years, the government has felt the need to salvage the medical system by making the present situation more attractive to those newly graduated doctors leaving the island. The FP will ensure that medical training, and thus standards, will be comparable, if not identical, to those in the UK.

The programme that will be implemented is aimed to be identical to that in the UK. The advantages of such a programme are that the house officers will be provided with a formal structured training programme. Although the setup to date allows doctors to train in an informal manner, the FP will be official and should aim to inspire doctors to develop and gain confidence in skills.

The aim of such a supervised training programme is to create a new 'breed of doctors' steering away from the attitude of 'everything goes'. The result will be the ability of the trainees to demonstrate competences at the end of training via an objective assessment. The two foundation years will involve structured teaching and training.

So how will it work?

The foundation programme candidates will have two supervisors: A clinical supervisor who will be the consultant they would currently be working with and an educational supervisor (Table 3). The latter is a specialist who will identify the candidate's educational needs and provide opportunities to air out problems the FP candidates may have. Each medical officer will be assigned two educational supervisors over the two foundation programme years.

The defined competences required at the end of the two years will lead to the acquisition of the medical licence. This programme is not intended to create more pressure or increase the workload on the already inundated medical staff. On the contrary, the FP aims to be a time and outcome based assessment where the candidate will be able to complete tasks which one is meant to be able to do.

Varied assessments will be held regularly in different formats, with the three basic assessment tools used listed in Table 1. These assessments aim to encourage the trainees to think about their own professional development, evaluating their weaknesses and strengths. Medical officers will also be provided with

The three types of assessment most commonly used

Multi-Source Feedback (MSF) provides candidates the opportunity to rate their abilities and offer comments. This can be done through the:

* Mini Peer Assessment Tool (mini-PAT),
* Team Assessment of Behaviours (TAB)
* Multi-source feedback tool, which is mainly used in Scotland).

With all of these tools, a list of colleagues is submitted, including non-clinical members of the healthcare team, as possible assessors. These will be contacted by the administrator who will compile the results on receiving responses. The report is sent to the candidate's educational supervisor, with results and comments being open to discussion with the concerned foundation year doctor.

Direct observation of doctor/patient encounters are observed clinical interactions, providing the opportunity for immediate feedback to the junior doctor. Such assessments must be arranged by the candidate and must also submit copies of the reports. The two most commonly used tools are:

* Direct Observation of Procedural Skills (DOPS)
* Mini Clinical Evaluation Exercise (Mini-CEX)

During placements, experienced colleagues are asked to observe the candidate perform a particular procedure (DOPS) or conduct a clinical consultation (mini-CEX). The doctor's level of competence will be rated and feedback provided.

Case-Based Discussion (CBD) is a structured review of cases the junior doctor has been involved in and allows the discussion of decision-making and clinical reasoning in a safe, non-judgemental environment with a senior clinician.

Table 1: Assessment tools used in the FP

formal teaching of one hour per week and at least 70% attendance is required to obtain one's certification. (Table 2)

All these assessments will be done electronically with an online portfolio mirroring that of the UK. The UK delegation has ensured commitment to

Teaching

Formal teaching:

* 1 hour every week protected time (70% attendance required)

Training days:

* Immediate life support in FY 1
* Advanced life support in FY 2

Table 2: Scheduled teaching in foundation year 1 and foundation year 2

The Educational Supervisor

Serves to act as a mentor who:

* Receives training and is accredited as competent to offer educational supervision
* Supervises and reviews the foundation doctor appropriately
* Assesses the competence of foundation doctors and maintains appropriate records of assessment
* Contacts the relevant foundation programme directors if any foundation doctor's performance causes concern

Clinical Supervisor

The Doctor would be the Clinical Consultant with the following roles:

* Provides appropriate training
* Teaches and provides feedback and assesses foundation doctors
* Clinical supervision appropriate for a foundation doctor's competence
* Guides foundation doctor to take responsibility for, and perform, any clinical or surgical or other technique, that they have the appropriate experience and expertise
* Delegates some supervision

Table 3: Educational vs clinical supervisor

equivalence of both programmes during meetings held back in November 2008. However, for the programme to be successful, commitment from all parties is required.

Steps are being taken to reduce the time-consuming and tedious tasks that take up much of the house officer's time such as the phlebotomy services. In fact, application forms have been sent for vacancies of Health Assistant in Phlebotomy Services, and the duties of such workers will include collection of blood from patients primarily by performing venipuncture. The medical officers will be limited to taking only urgent blood samples, with the routine blood investigations being taken by phlebotomists employed for that purpose. An induction programme is on the sidelines allowing newly graduated doctors to shadow a medical officer for one week before starting duties in full swing.

At the end of the day we must remember that at the core of these efforts to better medical education and training is the patient. Dr. Tonio Piscopo has stressed this during a meeting held for all medical students on the 16th of December 2008, that the patients' needs should be at the forefront at all times. The FP is there is order to implement change. As stated humorously by Dr. Piscopo "Change has come to America, change will come to MDH". Yet, all this is done with the hopes of changing things for the better.

What has been done till now...

Much work has been done already and a lot more is being carried out whist reading this. Members of the Maltese delegation set the ball rolling in August 2008, when the first meetings were held with the Medical Education Director Prof. David Sowden, Head of Workforce Capacity Department of Health (England) Ms Debbie Mellor and Deputy British High Commissioner Ms Janett Hancock.

It was here that the local infamous brain drain that made so many headlines in the local press was discussed with the intention of finding a tangible solution to solve this problem. Since it was clear that Maltese doctors were flocking to the UK because of the FP and negatively affecting the local health system delivery in the process, possibilities were explored seeking ways of classifying the Malta House Officer rotation as equivalent to the UK's FP.

"The UK NHS is offering direct help by finding 1-2 year placements for Maltese Higher Specialist Trainees. However, the UK is also prepared to consider sending UK graduates to do their FP in Malta once our programme becomes validated."

Surprisingly enough, this meeting turned out to be a win-win situation for both parties. Since the FP has only been up and running since 2005, the UK's National Health Service was still seeking validation of this new methodology of training their house officers. Having us wanting to sign up for the UK's "gold standard" was a positive sign confirming that this training programme is laudable to continue operation.

In fact, if our FP proves to be a success, it would be considered as equivalent to UK FP, with this having two implications. Maltese trainees will be able to apply for UK postgraduate posts on equal basis to UK trainees. In fact, the UK NHS is offering direct help by finding 1-2 year placements for Maltese Higher Specialist Trainees (HSTs). However, the UK is also prepared to consider sending UK graduates to do their FP in Malta once our programme becomes validated.

The Maltese Health Department committed itself to establishing the FP in Malta during the 2nd meeting back in September 2008. Here, the historic target date was set, after having decided to start getting the FP up and running in July 2009. During this meeting, the outline of structures needed to establish the Maltese FP was made and a business plan was submitted. The Maltese delegation also planned to visit some of the UK Foundation School in November, amongst which where: Trent Foundation School in Nottingham, LNR Foundation School in Northamptonshire and Derby Foundation School at the Derbyshire Royal Infirmary.

The first talk on the FP was held on the 26th of September 2008, with the opening speech being given by Hon. Joe Cassar, Parliamentary Secretary for Health

in the Ministry for Social Policy, during a seminar explicitly entitled: Why Maltese Doctors do not need to go to the UK for Foundation Programme Training.

In November 2008, the UK FPO showed a commitment to making both programmes equivalent. An agreement has been reached with Scotland to secure our e-portfolios and a roadmap of further collaboration was discussed.

Training visits were held for the trainers in February and March. On the week starting 16th February 2009, Deputy Director Dr Stuart Carney together with Director of Strategy and Communications Ms. Carrie Moore came to Mater Dei Hospital to provide training for Educational Supervisors and Clinical Supervisors and have also carried out e-portfolio training sessions. It was also on the 16th of February that Dr. Carney and Ms. Moore came to speak to us medical students to try and tackle all our burning questions, with the meeting being mostly aimed for the 5th years, yet students from all three clinical years were present. It was also during this visit that a memorandum of understanding has been signed with the UK FPO on the 20th of February 2009 (Figure 1).

"In November 2008, the UK FPO showed a commitment to making both programmes equivalent."

On the week starting 23rd March 2009, more training was be provided to both the Educational and Clinical supervisors.

The UK team will come back to visit in May-June 2009 and October 2009 for monitoring visitations, to make sure that the Maltese FP is running in perfect working order.

FAQ Corner

On the 16th of February 2009, Dr. Stuart Carney and Ms. Carrie Moore from the UK FPO met up with us clinical medical students, and gave us the opportunity to ask questions and raise any issues of concern. Here are some of the questions asked,

Can we have a guarantee that we are at par with British graduates when applying for speciality training posts in the UK?

A memorandum of understanding has been signed on the 20th of February this year that the British and the Maltese FP will be the same! Foundation doctors are going to follow the same curriculum and the same process, having the same portfolio and undergoing the same assessments. Hence, after the two foundation years,

Figure 1: Malta signs a memorandum of understanding with the UK FPO on the 20th of February 2009. From left to right: Dr. Sturat Carney from UK FPO, Parliamentary Secretary for Health, Health Care Services Division and Ministry for Social Policy, Dr. Joe Cassar, and Director General of Healthcare Services Dr. John M. Cachia. Photo taken from www.timesofmalta.com.

"The FP is not about weird pathology. The FP is about commitment... it's about interest... our commitment and interest in learning."

the evidence will be the same as that of the the UK applicant. The Maltese delegation and the UK FPO have come to the agreement that Maltese graduates will be at par when applying for speciality grouping in ST1 (Speciality Training 1).

It is a fact that we work longer hours as housemen than our UK counterparts, leaving us with less time for research-based projects and other CV enhancing experiences. Will this work against us when applying for a speciality training post?

It is an understandable fact that time is an issue. Despite the long hours, there are some projects that can only be done whilst working in hospital, such as writing up case reports and undertaking audit projects. Juggling between work and clinical research can be a tough balancing act – one that can only be successfully achieved through effective and efficient use of time. Yet, although working longer hours does leave less time for CV enhancing experiences, this doesn't put the Maltese doctor at a complete disadvantage. After all, there is a lot of value in clinical exposure. More time spent on the wards helps build clinical experience – experience that can make the foundation doctor a very valuable member of the team. So, CV enhancing experiences are not that essential.

Is Malta going to be the 27th Foundation School with regards to recruitment? Can British doctors do their FP over here?

At the moment, there are no plans to make Malta the 27th Foundation School. With that having been said, British graduates can still come to do their FP here in Malta, especially with the European Union giving right to all its member states to freedom of movement. Also, the British medical students are very excited about the possibility of doing their FP here in Malta.

Is it going to be of the same standard?

Yes it will be! In fact, UK regulatory bodies will come next year to work with the Deans involved to ensure that the standards are being met. And if a problem is detected, this will not mean that the Maltese FP will completely close down, but rather every effort is made to work towards improvement. In the FP, it is not just the foundation doctors, but everyone is committed to learning!

Malta is a small island and this will naturally impose certain limitations in our clinical expose. For instance, there will be rare pathology which we will never get to see. Are we at a disadvantage?

The FP is a generic programme, which aims to reinforce the same things we learnt at medical school and to give doctors the opportunity to experience as wide a range of specialties and clinical settings as possible. This is done in order to help doctors inform their future career choice whilst providing with a broad range of basic clinical skills. The FP is not about weird pathology. The FP is about commitment... it's about interest... our commitment and interest in learning. Tutors are not interested in the big and wonderful. Tutors are only interested in knowing whether doctors have acquired a solid foundation of the basics!

Is this being done to delay us going to the UK?

That depends entirely up to the individual! The choice whether to stay or leave is ours. This reply is in keeping with what Dr. T. Piscopo and Mr. K. Cassar said to the students during a meeting held on the 16th of December 2008. Mr. Cassar has explicitly stated, "We're not here to stop people going to the UK." In fact, Dr. Piscopo confirmed this by saying that our older peers are still managing to find posts in the UK without the need of the Foundation Programme. On must remember that hospitals need to run a health service and if the government feels that this is the last attempt to keep junior home, then

it did the right thing to go for it. However, it is a win-win situation. Doctors do yearn for structure and good quality training. Also, we have come to an age where this is becoming even more necessary for the safety of our patients who are starting to question our authority more than ever before. Therefore, it is in our best interest to keep on our toes.

Can I only do part of my FP in the UK?

Exchange programmes are a possibility, though these have not been concretely set up as yet. However, FY1 must be done in Malta. If you want to have an experience abroad, you can take time out from your FP for a whole year.

Are you sure that we're starting in July? Is there a possibility of this project coming to a sudden halt half way through our FP?

Yes, the FP will most definitely start in July 2009. It is unlikely that the FP will stop to a halt half-way through. Now that the train has left, there is no way we intend to look back!

What if I have problems with placements? What if my tutor is not very keen on training me?

The FP will only be as good as the feedback we give, since the people in charge need to gather data in quality. On the 16th of December 2008 meeting, Dr. Piscopo and Mr. Cassar said that only trained members of staff are allowed to be educational supervisors, and that if there are consultants regularly neglecting their duties as clinical supervisors, the Maltese FP team must be warned, although, we've been reassured that most consultants are currently more than willing to undertake this responsibility. With that having been said, we were reminded that it is not only our consultants that will assess us. In fact, it has been discouraged to get all our feedback and training solely from the clinical supervisor. We have 12 assessments a year, and feedback should ideally be provided from a wider range of senior colleagues, including BSTs, HSTs and other health care workers working in our team (nurses, physiotherapists, clinical pharmacist etc...).

Do I have to do a rotation in the speciality I would want to apply for in the future?

As most people are aware, not everyone will get the specialties they request during the foundation years since there are a finite number of available jobs in any one specialty. However, such choices will not have a direct bearing on your chances of getting into your specialty training programme of choice at the end of the FP. After all, FP training is about achieving the generic skills needed by all doctors in any area of practice. Also, one of the original aims of the FP was to give doctors the opportunity to reflect on their career path whilst working. Yet, interest is expected to be shown, and one way of doing that is by organising a taster with your educational supervisor in your speciality of choice. By definition, a taster experience offers time-limited exposure to the work and lifestyle of those involved in a speciality. These experiences may have a positive effect on the foundation trainee and confirm that a particular choice is appropriate for the individual. Conversely, a trainee may learn through this experience that the speciality is not what s/he had expected and may be excluded as a future career choice. A taster usually lasts around one week. Despite the period being rather short, there is evidence that any experience in a speciality, however brief, can be influential in a career choice.

Do we have study leave? And can we use this to study for our Royal College exams?

There will be 30 days of study leave provided: 10 days of which will be used up leaving you with 20 days to spend any way you please, either by doing the above mentioned

tasters or to participate in projects and audits. This study leave cannot be used to study for your Royal College and other postgraduate exams! This is definitely not allowed in the UK, and Malta does not seem to be very lenient about this issue either.

Quo Vadis? What happens after the foundation programme?

After the 2 foundation years, no matter what career path you take, everybody goes through the following process... waiting for the call of applications, writing up an impressive CV with good referral letters, attending interviews and hoping to get the job you yearn for most! During interviews it is not only your medical knowledge which will get you through. A positive attitude and charisma will gain you points as will your interest in subjects other than medicine. This is true at all specialty levels.

Choosing which career path to follow needs a great deal of thought. Your interests have to be in tune with your aptitude and strengths, as well as a realistic assessment of what your chances are against the competition. The Career's Convention, which has now become a yearly event organized by MMSA, is a good eye-opener. This year, SCOME invited people from all specialties to tell us what the situation is like locally, including specialties like general practice, radiology, anaesthesia, pathology, public health and also research.

For those interested in a hospital based specialty, one starts their journey by undergoing Basic Specialist Training (BST), with all training programmes being available in Malta. The options are numerous and the situation, so far, looks promising.

For those interested in working as family practitioners, a specialist vocational training programme has been established and has been an obligatory requirement as from 1st of May 2004 in order to be included in the Maltese Specialist Register. It is one of the few courses with a defined starting and finishing point, with the course being three years long ending with an exit exam, to obtain the Membership of the Malta College of Family Doctors (MMCFP) and an internationally recognized MRCGP.

Where can I go for more information?

In case this Murmur feature is not exhaustive enough, a FP handbook is being written for Maltese foundation doctors and it should be ready any moment if it has not been distributed already. In the meantime, there's more information available at www.foundationprogramme.nhs.uk/pages/home – The Foundation Programme UK's official website.

The Maltese FP has its own website too...
http://www.fpdoctors.info/

Stephanie Azzopardi discusses the evolution of antibiotics from the humble mould to today's multibillion dollar industry, as well as the increasing problem of resistance.

Along the boundaries of use and abuse:

The antibiotic saga continues...

Ever since his arrival on Earth 35, 000 years ago, man has fought many a heroic battle. Clubs, spears, bows and arrows have shaped our history and the face of the Earth, giving rise to great men and greater civilisations. Yet, before all that man built, and probably long after the last civilisation crumbles to dust, other organisms exist on this planet that have a lasting hold upon man's fate.

All that glitters is not gold, and beneath the dazzle of every victory of war, medicine had its own battles to conquer. Amidst the well-bred propriety of the Victorian age we find Florence Nightingale, the "lady with the lamp" who founded modern nursing back in a time when the world of medicine looked very black and bloody indeed. The same dirty times also gave us Joseph Lister (1827-1912), a Scottish surgeon who realised the importance of keeping wounds and equipment clean and germ free during operations. This was indeed important at a time when someone getting caught in the rain, or cutting themselves while shaving, could very easily have died from a simple infection, suffering a fate that was anything but poetic.

A great deal has changed nowadays. The reasons for the medical revolution are many, but antibiotics were certainly one of the fiery standards heralding this new age. The tale of their discovery is, unfortunately, not exactly a moving and heroic one. All it took, really, was a humble little creature called mould.

It seems that the ancient Egyptians used to put mouldy bread upon their battle wounds to improve their healing. Sure enough, when Alexander Fleming discovered penicillin in 1928, it was his forgotten, mouldy cultures that started him off and changed our world for good. Since then, the pharmacological industry has grown and diversified, with various antibiotics on the market today. Antibiotics have revolutionised medicine and saved millions of lives. They are a sword in the physician's hand that cannot be easily evaded by its enemy.

But that's the thing with swords... Many of them are double-edged. Some of the microorganisms could evade the blow and live to tell the tale... And to multiply! In so doing, they gave rise to new strains of their progeny which possessed properties that allowed them to evade or fight back against the antibiotic and survive. This is a phenomenon which we medics know as antibiotic resistance. This serious problem is intensified by the abuse of antibiotics in today's society. The more antibiotics are used, the greater the chances are of new resistant strains cropping up. The classic example is the so-called 'superbug'

"There is no doubt that antibiotics are both overused and overprescribed in Maltese society. Illegal over-the-counter purchases are common, as are antibiotic prescriptions for slight colds or even viral infections, where such medication is useless."

MRSA (methicillin-resistant *Staphylococcus aureus*) – a bacterium which colonizes the skin of 30% of healthy individuals and is responsible for a large number of hospital-acquired infections. Here, indeed, the good old days used to emerge triumphant, as most Staphylococcus aureus infections could be cured with penicillin in the World War II era. However, by the time the slogan had changed from Lord Kitchener's 'Your Country Needs You' to 'Make love, not war' in the 70s, resistance to penicillin required the switch to be made to produce another antibiotic, methicillin. Once again, the microorganisms were winning the battle by the 90s, giving rise to widespread epidemics. Even the seemingly impressive arsenal at the physician's disposal, is starting to lose against these microorganisms' ability to mutate and get smarter than the bombs thrown against them. It all sounds very much like a microscopic version of the X-men saga.

This problem has resulted in various initiatives by health organisations aimed at informing both the general public and the community of health professionals of the arising problem. Last year, the EU launched the first European Antibiotic Awareness Day on the 18th of November, an annually-recurring event aimed at increasing public awareness about antibiotic misuse, and how this can be prevented.

Malta was also part of this initiative, having organised various educative campaigns promoting proper antibiotic use on billboards, television shows, newspapers and various other forms of media. It seems that this has wrought some effect, as demonstrated by a survey carried out by the Infection Control Unit (ICU) with the help of MMSA in November 2008.

The data collected is still being analysed and is due for publication in the near future. However, a quick glance at the results suggests that many people did hear of the campaign through various outlets; including posters, radio programmes and breakfast shows. In particular those of a more mature age, such as pensioners, seem to be much better informed than the teenagers and young adults surveyed. Perhaps it might be a good idea to extend the campaign to Paceville's clubs next year.

The data also suggests that many Maltese do not purchase antibiotics unless prescribed by their medic – a fact that is in contrast with other figures published by the ICU in 2002, which show 19% of those surveyed admitted to taking antibiotics without prescription, coupled with a further 11% saying they had also given their children unprescribed antibiotics. The source of these medications could be either an over-the-counter purchase, or leftover antibiotics from a preceding prescription. In fact, a fair percentage of those surveyed did admit to having antibiotics in their homes, though most said they would not consider using them without their doctor's acknowledgment. Unless, of course, we are talking about fusidic acid...

An interesting non-statistical fact is that a number of people marked YES when asked whether they would take non-prescribed antibiotics, only to cross it out later and mark the NO answer-box. An irrelevant observation, or the result of judicious thinking overruling the first, probably more honest, instinct? Would these same people also stop to think it through the next time they have a bad cold and decide to stop by the pharmacist's on the way home from work?

There is no doubt that antibiotics are both overused and overprescribed in Maltese society. Illegal over-

the-counter purchases are common, as are antibiotic prescriptions for slight colds or even viral infections, where such medication is useless. Many people would say that it's mainly due to paranoid patients, who expect to be given the same drug that their neighbour, aunt or third cousin twice removed received for similar symptoms. After all, that's also what that website their teenage niece accessed recommended! However, the problem is not just that. We are now living in a post-modern age of a pill for all ills – a result of the optimism born in the scientific revolution of the late fifties, sixties, and seventies.

Any doctor who fails to come up with an entire regiment of pills that the patient can later complain or brag about to sympathetic relatives, is often perceived as someone who obviously got through medical school by pure chance alone. The general idea is that the stronger the medication is, the better, and that it is preferable to pop pills and be safe than sorry. Well, sorry to burst your bubble my friend, but it doesn't quite work that way.

Solutions to this problem do exist. The CDC (Centres for Disease Control and Prevention) has outlined 12 steps to prevent antimicrobial resistance, which are divided into four main areas:

1. **Infection prevention,** which encourages the use of vaccinations and getting the unnecessary devices, such as urinary and intravenous catheters, out as soon as they're not needed!

2. **Diagnosing and treating the infection effectively,** where microbiologists and infectious disease specialists will surely come in handy. Knowing local and regional data is also essential, something which the ICU is currently working on.

3. **Wise use of antibiotics,** by knowing when to say 'no', treating the infection not the contamination and by stopping antimicrobial treatment as soon as the infection would have resolved.

4. **Preventing transmission.** Yet, the wise old saying that prevention is better than cure applies here more than anywhere else. Hand-washing, in particular, is a powerful tool against disease transmission which is not given enough importance by your everyday health professional. When Dr. Semmelweis first suggested that young doctors should wash their hands between performing autopsies and giving birth to babies, his colleagues were outraged by the notion that they could be infecting their patients. Semmelweis was ridiculed, slandered, driven to a breakdown and finally thrown into an asylum, where he died. Things have drastically changed since then, but not to the extent one would wish to believe. Let's not repeat our forefathers' arrogant mistakes!

"It's not just Ganni l-poplu or Cikka tal-grocer that need to be taught that these magic pills come with a limit of three wishes. It is the doctor; every GP, every consultant, and most especially every medical student who needs to be informed."

The problem is real, and it's out there. It has to be fought against, mainly by using a little something called education. And it's not just Ganni il-poplu or Cikka tal-grocer that need to be taught that these magic pills come with a limit of three wishes. It is the doctor; every GP, every consultant, and most especially every medical student who needs to be informed. My father once told me, that an old crooked tree can never grow straight again, which is why it's up to us, the green shoots, to straighten up the kinks in this microscopic show.

Professor Josanne Vassallo MD PhD FRCP gives her insight on the Maltese medical research scene and what it takes to get a publication on the radar.

Research in Medical Education

The integration of research into the medical curriculum varies across the different regions of the European Union depending on the particular medical school and the structure of the curriculum. The concept of evidence-based medicine has served as an impetus to promote translational medicine and to bridge the gap between research into the basic sciences and clinical medicine. The European Union is actively promoting research in the medical sciences through establishing a European Research Area but the competition for funding is enormous.

Regrettably in a large number of medical schools, the research component of the medical curriculum is poorly defined, as are the learning outcomes in this respect. Medical schools that are modelled on the Bologna process system of a two-cycle degree with three-year plus two-year structure often have a strong element of education in research methodology and gear students to proceeding to take up careers in academic medicine and reading for PhDs. Graduate-entry medical schools have a shorter four-year course but students starting such courses generally have a first degree, possibly but not necessarily a BSc, which serves to give a good grounding in research and scientific methodology.

"For those who wish to focus on clinical postgraduate training and specialisation, it is possible to do research under the supervision of the consultant they are working with in the relevant specialty until they gain sufficient skills in study design, statistical analysis and scientific thought."

The University of Malta Medical School has a medical curriculum that is modelled on a one-cycle degree. Currently graduates interested in doing medical research can register for an MSc (taught or by research) and subsequently move on to a PhD if they are keen on a career as clinical investigators. Alternatively it is possible to register for an MPhil and transfer to a PhD. The regulations for registering are available on the University of Malta website.

For those who wish to focus on clinical postgraduate training and specialisation, it is possible to do research under the supervision of the consultant they are working with in the relevant specialty until they gain sufficient skills in study design, statistical analysis and scientific thought. A number of doctors undergoing postgraduate clinical training in fact do research in their chosen specialty under the supervision of their consultants or postgraduate trainers. Such research is mandatory for those who wish to pursue a career in an academic or teaching hospital. The outcome of such research enables them to compete better for training posts and rotations as well as eventually for jobs as consultants in their chosen specialty. The Faculty of Medicine and Surgery at the University of Malta runs a number of taught and research Masters and PhDs which graduates with a first degree can apply for. An alternative is to proceed abroad for the said Masters or PhD courses or to register for example for a course by distance learning.

Against this background patients remain at the centre of medical care and service provision. Patient care cannot and should not be negatively influenced or relegated to a position of diminished importance because trainees and specialists are driven by the pressure to publish or perish. The interests of subjects enrolled into studies which involve any form of intervention are protected by research ethics committees and any research protocol has to be vetted and approved by a research ethics committee.

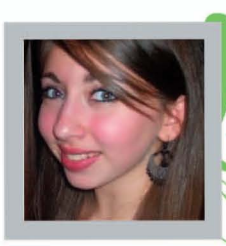
"Patient care cannot and should not be negatively influenced or relegated to a position of diminished importance because trainees and specialists are driven by the pressure to publish or perish."

Once a project or trial is approved, it is essential that patient wellbeing comes first. The rationale of the study must be explained clearly to the patient, informed consent obtained and any results must be communicated to the patient in a caring and professional manner. Explanations to ensure that patients are not alarmed at any stage of the research project from recruitment through to conclusion of studies are essential. Patients' wishes are to be respected and pressure should not be applied to patients at any point. Finally patient confidentiality has to be respected.

There is another side to the coin and that is adherence to a scientific code of behaviour that is rigorous and ethical in respect of one's co-researchers, the scientific committee and ultimately the community at large. This code governs the processing, presentation and publication of data and the conclusions reached. The Data Protection Act is to be adhered to at all times. All co-workers are to be informed of abstracts submitted for presentation at conferences and papers submitted for publication as their input and signed consent is essential. Duplication of data in an attempt to pad one's publication list or CV is to be avoided at all times, as is falsification of data or the purposeful introduction of bias into a study to obtain the "desired" results. Similarly partial or complete withholding of results, for example, because of financial concerns, also constitutes scientific misdemeanour or fraud. Claiming work carried out by others as your own is a serious breach of ethics as is publishing that work as being original. The existence of computer software that tracks down plagiarism has been a major advance in combating such problems.

Research in both the basic and clinical sciences and its eventual translation into the practice of evidence based medicine can be a rewarding but challenging career. Teaching and university hospitals can and do provide the possibility of joint appointments enabling the pursuit of a clinical investigator career track whilst still doing a certain amount of clinical practice. However, the pressure to obtain funding to carry out research, to publish and the fact that academic medicine may not be as financially remunerative as clinical practice are major issues that regrettably can deter physicians from pursuing a career in academic medicine. Ultimately, if one is willing to rise to those challenges, one can look forward to an intellectually fulfilling career in academic medicine.

In the wake of the discovery of a new drug against prostate cancer, **Claire Vella** talks to one of the two Maltese doctors working on the research team in the UK.



An interview with Dr. Gerhardt Attard

In July 2008, the mass media announced that a team of researchers at the Royal Marsden Hospital had developed a groundbreaking new drug for the treatment of aggressive prostate cancer. Abiraterone is a CYP17 inhibitor which blocks oestrogen and testosterone synthesis throughout the body, and the results of a phase I trial published on the Journal of Clinical Oncology were extremely positive – patients showed significant decrease in blood prostate specific antigen (PSA) levels, reduction in tumor size, and shrinkage of metastases. Of special interest is the fact that two key members of the team, Dr. Johann de Bono and Dr. Gerhardt Attard, are Maltese. It is thus a great pleasure to have the opportunity to publish a Q&A with Dr. Gerhardt Attard, discussing the benefits and difficulties of pursuing a research career abroad.

Murmur: Did you run into any obstacles during your research? If yes, what were they?

GA: The first big obstacle is obtaining funding. Some areas are easier than others. For example, obtaining funding for cancer research is easier than for dermatology. Moreover, some areas of cancer research are easier than others. There is more money available for commoner cancers, such as prostate cancer, than rarer tumours. With funding in the bag, things get easier but it does not guarantee space or a position in a renowned research institute.

Survival in research is entirely dependent on publishing good papers in high-impact journals. To do this, one needs novel, good ideas, support in a large institution and from a good team, and a lot of luck. If one does not publish prolifically and continuously, one will quickly lose their job and funding. It is a dog's race in academia. However, if one survives, it is exciting and amazingly rewarding.

Murmur: Is there adequate support for researchers in Malta?

GA: I don't know. I never attempted to do research there.

Murmur: Would you have managed to work on a study such as yours in Malta as opposed to the UK?

GA: No. The running costs are too high to ever have this level of funding in such a small market. Moreover, there are insufficient numbers of patients. I work in a research institution with over 2000 employees – there will never be any opportunity or scope to set this up in Malta. However, there are opportunities for Maltese doctors to participate as co-investigators in multi-centre studies and to collaborate on some research projects.

MMSA GOES INTERNATIONAL!

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IFMSA March Meeting 2009
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For further information and full prescribing information contact GlaxoSmithKline (Malta) Ltd. Tel: 21 238 131. Date of preparation: September 2008.

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