



The University of Malta Research, Innovation & Development Trust

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Message by the Chairman

am pleased to report on the work of our university research trust over the past year. Our mission to support and promote excellence in research, innovation and scholarship at the University of Malta continues to be of paramount importance.

The RIDT plays a critical role in providing the resources necessary for our academics to pursue ground-breaking research across a wide range of disciplines. Through your generous support, we have been able to support important projects that can help solve problems and provide a better quality of life for all of us.

As things stand today, research funding for our university remains limited, although we have to acknowledge that we have seen some encouraging changes over the years. Research funding is critical to the success of universities and their ability to make a meaningful impact on society.

When the University of Malta set up the RIDT, the objective was to create a platform through which the

community could use philanthropy to engage with the researchers. This way, the community participates in the shaping of the future of our University.

I would like to extend my gratitude to the donors and supporters who have made our work possible. Your generosity has allowed us to make significant contributions to the advancement of knowledge and we are deeply grateful for your continued support.

As we look ahead, we remain committed to fostering a culture of excellence and innovation in research and offering continued support to our researchers. We are confident that, together, we can make a lasting positive impact on society and thus contribute to a better future for all.

Prof. Alfred J. Vella Chairman, RIDT



Message by the CEO

While we continue living in turbulent times, we are grateful that the COVID-19 pandemic and its restrictions are now behind us. Following two very difficult years for all of us, we saw the world slowly picking up the pieces in 2022. At the University of Malta, we saw research activity going back to normality, and thankfully we saw our supporting community regain the strength to continue providing us with the much-needed financing of across-the-board research projects.

We are indeed grateful to all the companies, NGOs and individuals who picked up from where they left off and came forward with their donations to the RIDT. I have to admit that there were times during the two years of the pandemic when we doubted whether we would go back to where we were, but that doubt is now gone and we look forward with enthusiasm and hope.

Thanks to the lifting of the restrictions, a number of RIDT-funded projects could continue in earnest, having had to stall or slow down during the pandemic months. The conservation of the Great Siege mural at the Grandmaster's Palace was one of these projects. Having started in 2018, following two generous donations, the project almost came to a standstill during 2020 and 2021. During the same period, most of the foreign students working on the project went back to their respective countries, making it very difficult for the project to keep its momentum. Thankfully we are now back in full swing and the project is due to be concluded in 2023. We are also happy to see our regular donors return with the same dose of enthusiasm that they had before the restrictions. They are the backbone of our mission and we owe them our recognition and gratitude.

2022 was also the year when we re-activated one popular tradition with our donors and benefactors. The RIDT Christmas Celebration Concert could not take place for three consecutive years and so, once the air had cleared, we felt the need to bring it back in our December calendar. And what a comeback that was! You can read more about it in this report, and I take this opportunity to thank the musicians and chorists who made this such a special occasion. Most of all a big thank you is due to Mro Michael Laus who was the musical brains behind it.

It is hard to recall how life was before the pandemic. So many things have changed. What has not changed is the need to invest more in research in order to find solutions for today's problems. Another thing that has not changed is the generosity of our community, which continues to support us. We will continue to put your donations to good use so that we can all dream of a better future.

Wilfred Kenely Chief Executive Officer, RIDT

RI IN NUMBERS

75 PROJECTS SPONSORED

12 Ph.D. scholarships

850 Donors

45 MAJOR DONORS (€10,000+) **€4.3 million** RECEIVED SINCE SETTING UP

€500,000 RECEIVED IN 2022



ALIVE – 10 years of cycling for Cancer Research

Cycling was very important to Elton Barry: he used to love playing football, but 'blew his knees' – as he put it – and at the age of 36, getting on a bike filled the gap. However, around that time, his father-in-law passed away after a bout of cancer while another close relative survived. It made him think long and hard.

He turned, of course, to his closest friend Nicky Camilleri, and the two pondered the mysteries of life and, specifically, cancer. They realised that while a tremendous amount was being done for cancer patients, little was being done to fund the research that could result in breakthroughs in diagnosis and treatment.

With quite a circle of fellow cyclists, they came up with the idea of organising a fundraising event.

"At the time, we were thinking about a few dozen cyclists, and we were aiming to raise €40,000 – which seemed an impossible target at the time!" Elton said.

The first event – a meandering 820 km route from London to Paris – was a logistical nightmare: finding and checking the route, organising transport and relatively cheap accommodation, planning support for the cyclists. Nicky smiled when he looked back at it.

"We did not have a physiotherapist with us and very minimal back-up. It was a real learning experience!"

It was, nevertheless, a huge success: the Alive Foundation was able to donate €55,000 to breast cancer research from that first event and plans began for the next year, which raised a further €80,000, beyond their wildest dreams.

By the third year, they had 45 cyclists and realised that they needed to cap the number of participants around that number. The logistics had by then settled down into a routine, with 17 weeks of training prior to the event. Elton and Nicky were very clear in their mind: this was not a race but a challenge and flexibility was the key. People could stop if they could not continue on a particular day but were encouraged to carry on the next day – Elton himself had problems with his knee during the first event and resumed cycling.

"For us it was always clear: it was about raising funds,





not about the individual. This is also why we stayed within Europe for the week-long challenge, as this makes it much easier for participants and for logistics," Elton said, adding that the events had attracted people who had never cycled before – some who had never even owned a bike before!

"And when something goes wrong, it can go spectacularly wrong! Imagine trying to sort out medical treatment in another country and in another language!" Nicky added. Over the years, Alive Charity Foundation built up quite a following. The youngest participant was just 18, and so far, their oldest participant (who has already done three events) is 67. Some of the participants had survived cancer; others had just finished treatment. Another had Type 1 diabetes and had to juggle his insulin to keep his blood levels stable.

"Look, it is absolutely not a holiday. Apart from the tough training, the trip itself is arduous and we sometimes sleep four to a room to keep costs down. Participants are given a target amount to raise, which is actually harder to do than the cycling itself!" Elton added, noting that the Foundation was helped by sponsors who donated funds or in-kind products and services.

Over the years, the Foundation has gone to most European countries – the Ukraine war disrupted plans to go East and COVID put a halt to the events for two years. However, plans are at an advanced stage for the 2023 event which will go from Barcelona to Santiago, covering a distance of some 1,300km.

The pair, who now have an established committee of five others to help them, put transparency at the forefront, with KPMG auditing them and full reports being issued to stakeholders. Although the number of potential participants is increasing, the donations pot is not infinite and the Foundation competes with other NGOs involved in raising funds for cancer patients. Alive Charity Foundation focuses solely on cancer research.

"Well, 'compete' is maybe the wrong word. We all do very valid work and support each other. Every bit helps," Nicky added.

The bottom line is... well, the bottom line. How much have they raised? An impressive €702,000! Apart from one year, where they accepted to help with a recreational area for children at the Oncology Hospital, all the money has gone towards research, and they speak with great pride of the outcomes.

One outcome is, however, perhaps not as obvious unless you are involved in the world of research: motivation for Ph.D. students. Nicky explained that without projects and



funding, students were very often left with little choice but to go abroad. Others have made significant findings that could go a long way towards earlier diagnosis and better treatment.

"One of the researchers, Shawn Baldacchino, who is now working at the European Commission, found a way to detect a specific type of breast cancer much earlier, increasing the chances of successful treatment," he said with pride.

The co-founders are as passionate now as they were 10 years ago, in spite of personal challenges. Elton, for example, survived a brain haemorrhage in October 2017 which could easily have killed him. Not only did he defy all expectations with regards to regaining his speech and mobility, he insisted on taking part in the 2018 challenge.

"Look, we are doing this for cancer research. When you go through something like this you understand more about what cancer patients go through. It is a very important part of the challenge and it is what keeps us all motivated," he said.







ALIVE Foundation donates another €90,000 for cancer research

The ALIVE Charity Foundation raised another €90,000 for cancer research, with its participants riding 1,000km around Sicily after a two-year break due to COVID-19 restrictions.

This brings the total raised by the ALIVE Charity Foundation to over €700,000 for cancer research.

The Foundation was the first Maltese charity set up specifically to fund cancer research, and it will celebrate its 10th anniversary in 2023 by tackling a 1,300km journey across Spain, from Barcelona to Santiago de Compostela.

The funds were donated to RIDT during a ceremony held at the Biomedical Labs at the University, which gave Prof. Christian Scerri, on behalf of the cancer research teams at the University of Malta, the opportunity to explain how the money received from the Foundation has so far been utilised.

The ALIVE Charity Foundation is chaired by Nicky Camilleri, who said that the NGO was well aware that cancer was, unfortunately, a reality that affects us all, albeit to different extents. He stressed that the Foundation would continue to raise funds for cancer research as this provided a ray of hope not only for patients but also for their families, friends and communities.

The University of Malta has its own research funds, but these are significantly boosted by the funds obtained through RIDT, a point which was made by Rector Alfred Vella.



Rector Prof. Alfred J. Vella Photo by James Moffett



Alive Foundation chair Nick Camilleri (left) and RIDT CEO Wilfred Kenely *Photo by James Moffett*

A DECADE OF DONATIONS: WHAT WAS ACHIEVED

PROJECT 1: DR SHAWN BALDACCHINO

This was the first Ph.D. scholarship that looked into specific pathways in triple negative breast cancer and the benefits that a subset of these tumours might receive through the addition of a drug that is already in use for a different disease. This study also identified a simple and fast way to identify the different types of breast cancer.

PROJECT 2: DR JEANESSE SCERRI

Another Ph.D. study, this time looking at how cancer cells acquire Herceptin resistance and paved the way for further studies in this field.

PROJECT 3: PROF. GODFREY GRECH AND PROF. GODFREY LAFERLA.

This research is looking at early, minimally invasive methods for colorectal cancer screening. At the moment, CRC screening is normally done through fecal testing, an invaluable method but one which usually discovers relatively advanced cancer. The project is attempting to utilise bacteria in the gut and small cellular fragments in blood to identify colorectal cancer in its very early stages.

PROJECT 4: Ph.D. STUDENT GIULIA VASSALLO EMINYAN

This Ph.D. study on Neuroblastoma shows how combinations of drugs cause differentiation and/or cell changes or death.

PROJECT 5: MASTER'S STUDENT SRDJAN TADIC

This study examined the effects of a formalin fixed tumour vaccine on a rat model of breast cancer. The work showed the immune system killing the tumour but inflammatory fluid in the lungs drowned the rats.

PROJECT 6: PROF. MARION ZAMMIT MANGION AND HER TEAM

The team is studying a number of phenolic compounds (such as antioxidant compounds found in orange/red/ bright green coloured vegetables and fruit, tea and other natural products) and their effects on a chronic myeloid leukaemia cell line, at the concentration in which they are present in a native Maltese olive oil. Results are promising in that these have been found to induce differentiation and cell cycle arrest – making it more likely that cells will die a natural death.

PROJECT 7: PROF. MAURO PESSIA AND HIS TEAM

The team is studying the mechanism by which withdrawal of the beneficial drug (dexamethasone) in glioblastoma results in a rapid proliferation of glioma tumour cells. While highly effective, this drug has to be withdrawn after some time due to its side effects. In this study, a particular compound has been identified that reduces this problem, by inducing the expression of a particular gene.

PROJECT 8: DR OWEN FALZON

Artificial intelligence is becoming ever more important as an aid in medical diagnosis, treatment and prognosis. This ongoing project aims to identify a way to combine thermal and visual imaging so as to distinguish between benign and malignant skin tumours and thus avoid unnecessary invasive procedures (biopsies).

PROJECT 9: PROF. CHARLES SAMMUT

It has been shown that by heating tissues, both radio- and chemotherapy are more effective. Prof. Sammut and his team are studying the effect of microwave heating through a special antenna on breast cancer. If successful, this can result in lower doses of radio and chemotherapy.

PROJECT 10: PROF. JOSIANNE SCERRI

This study looks at males that have undergone breast surgery for male breast cancer. There is a lack of studies in the field even though these individuals have physical, functional emotional, social and spiritual problems. This ongoing study has already contributed two publications in international peer-reviewed journals.

Conserving the Great Siege wall paintings cycle

Memories of the bloody Siege of Malta were still fresh when Jean de la Cassière became Grand Master in 1572. Only seven years had passed since he had served as a commander under then Grand Master Jean Parisot de Valette, and it was his ardent wish to capture the fury of those four months, when Malta was pounded by the Turkish armada.

The Ottoman fleet comprised 193 vessels – one of the largest ever assembled – which were repelled by the Knights based at Fort St Angelo, Fort St Michael and Fort St Elmo.

Grand Master de la Cassière knew that it would take a master hand to capture all that had happened in those bitter weeks and he settled on Matteo Perez d'Aleccio.

Perez d'Aleccio, who was only 30 when he came to Malta in 1577 and documented the Siege events in 12 episodes, which he interspersed with allegorical figures, capturing the Siege through monumental, detailed wall paintings in the Grand Council Chamber of the Grand Master's Palace in Valletta. His work is considered to be the most historically accurate visual document of the event, drawing as it did on eyewitness accounts and written narratives – details that Grand Master Jean de Cassière would have seen first-hand.

Between 2001 and 2005, the Dresden University of Fine Arts conserved two-thirds of the paintings to address deterioration caused by water infiltration, building use and past restorations.

Conservation of the final third of the cycle did not begin until 2018, this time under the care of the the Department of Conservation and Built Heritage of the University of Malta, in partnership with Heritage Malta, and under the auspices of the Office of the President of Malta. The project was led by Professor JoAnn Cassar, Head of the Department of Conservation and Built Heritage, and the Department's conservators and academic staff, including Jennifer Porter, Chiara Pasian and Roberta de Angelis.

"It is important to note that the conservation of the wall paintings developed hand-in-hand with the Department's Master's programme in the Conservation of Decorative Architectural Surfaces. In this programme, students are trained, under close supervision, in all areas relating to the documentation, analysis, development of treatments, and



hands-on work on real decorated surfaces which form part of our heritage, in this case the iconic wall paintings in the Throne Room of the Palace of the President," Prof. Cassar said

Before work on the paintings could start, the team conducted extensive research, documenting all that had happened to the paintings since Perez d'Aleccio had finished the work. They put together a dossier of everything from previous restorations to existing documentation, while also taking into account damage suffered during World War II.

The valuable information embedded in the paintings was also given importance: there were numerous details captured by Perez d'Aleccio that gave tremendous insight into this important military campaign.

The project has been running in the frame of the major conservation works being carried out at the Palace, led by Heritage Malta, the national agency for museums, conservation practice and cultural heritage. Throughout the conservation of the D'Aleccio paintings, Heritage Malta curators advised on various important historic details, as well as the context of the paintings from a historical point of view. Prof. Cassar also explained that the Department's analytical equipment was fundamental for the study of the original materials of the paintings and the causes of their deterioration, as well as for determining conservation approaches.

"We use the equipment to understand the composition of materials, how they behave over time, and what sensitivities they may have to conservation treatments. We use a combination of instruments such as photography, microscopes, and infrared and X-ray spectrometers for this work. Many of the instruments are portable and can be used on site, but in some cases we have to remove samples from the paintings to be able to study the materials in the lab.

"Before the equipment was purchased, we either had to work with limited information or we would send samples abroad for analysis. Having direct access to analytical instrumentation has therefore greatly improved the quality and efficiency of our work."

The team was made up of about 15 people, composed of academic staff from the Department of Conservation and Built Heritage, who are also professional wall painting conservators; students and post-graduates from the >















Details of the conservators at work. Photos by the team of conservators

M.Sc. program; Research Support Officers; and interns from recognised post-graduate conservation training courses. All of the team worked together to carry out the documentation and diagnosis of the paintings; and to develop, test and implement the conservation treatments.

"A team of this size was necessary due to the vast size of the murals we were studying and treating: approximately 80 m² of painted surface. All aspects of the work (study of original material and painting deterioration, and conservation treatments) were fully documented using photography, digital mapping, and written reports," Ms Porter explained.

All this work would not – of course – be possible without funds: the project was estimated to cost €300,000 in all.

RIDT was brought in to help and managed to secure €75,000 from the Gasan Foundation in 2019. This helped to launch the project, which was then granted a further €75,000 from the Planning Authority's Development Fund and €10,000 from the Melita Foundation. In 2023, the Planning Authority donated a further €70,000, with its Executive Chair Oliver Magro saying that the restoration would ensure that "this national treasure will be enjoyed by future generations".

Minister for Public Works and Planning Stefan Zrinzo Azzopardi was full of praise for the project, stressing that it would serve as a blueprint for future projects of this calibre.

In the meantime, University Rector Alfred Vella described such projects as an integral part of the institution's role, complementing the traditional roles of teaching and research with active participation in the strengthening of society.

In spite of the generous donations, RIDT is constantly striving to raise more funds to make sure that the momentum is not lost. In 2022, it organised a gala fundraising evening at the Palace, which included music by Karl Fiorini, Clare Ghigo and Anne Marie Camilleri Podesta, as well as an opportunity to see the progress of the project, and to meet the conservation team in person. This was followed by a reception in the Palace Courtyard, catered for by 'Taste History', a Heritage Malta concept, which brings to life centuries-old recipes found in the archives of Heritage Malta.

Out of this world MALETH II research in space

Prof. Joseph Borg

Who could possibly have foretold that the mobility restrictions relating to COVID-19 could have resulted in tissue samples being sent from Malta into space?

Prof. Borg, who found his normal workload and research into experimental haematology and molecular genetics curtailed, was thrilled to have more time to read, and in late 2020, he was poring through a series of articles about the biology of space flights. "I have been passionate about space science and research since I was young," he laughed.

The articles were about twins Mark and Scott Kelly: the latter spent a year in space and his DNA after his sojourn was different to that of his twin who stayed on Earth. For Joe, the articles sparked his imagination. "Things are amplified in space, possibly because everything else is omitted from the equation," he explained.

"I had been doing a lot of experiments in my own lab and had not found the answers to all my questions. Using space could be an additional way to uncover these missing pieces or hard to come by answers."

Out of sheer coincidence, he was contacted soon after on LinkedIn by a man working with Space Applications Services, a company in Brussel, who asked whether he had ever considered sending experiments to space. The coincidence provided the encouragement he needed to investigate the possibility. He reached out to the authors of the original set of articles about biology in space and, after originally considering experiments relating to blood, he realised that there would also be much to gain from sending tissue from diabetic foot ulcers, the chronic open sores susceptible to bacterial infection. There are 10 new cases each week in Malta that require attention and medical care, and over 100 amputations per year on the island alone. One of the people in his team, Ph.D. student Christine Gatt, was working on diabetes and – as they say – the rest is history.

Joe recalled the day in August 2021 that the first experiment was meant to take off from the USA, bound for the International Space Station. As so often happens with rocketry, the launch was cancelled at the last moment, putting paid to the planned event at the Campus Theatre in Valletta, where the then Foreign Minister Evarist Bartolo, representatives from the two local sponsors Evolve and Arkafort and a presenter had been lined up.

"The rocket eventually took off the next day, but here it was after midnight, so I watched it from the comfort of my home! You cannot capture the feeling in words. It was a heart thumping moment; such a mixture of emotions, after the stress of getting everything ready in that short time – including funding through RIDT!



Top: Samples ready to go into space. Below: Prof. Joseph Borg



And I got bizarre moments of panic as to whether the experiment was actually on board or whether they forgot to load it! You only know for sure when the astronaut unpacks the payload and shows it to the camera – but that it is a few days later!" he laughed again.

His personal recollections of the three Maleth projects are interspersed with all the scientific rationale behind the experiments.

"I wanted to understand any links between the process of bacteria becoming resistant to antibiotics and them becoming resistant in space – so that we could find out how to treat people better here on Earth!" The amount of data generated by the three space flights is phenomenal and it is too early yet to shout about their conclusions. However, one thing is for certain: the projects have opened up untold opportunities for international collaboration, including a project in August 2023 which will involve blood tests on private citizen astronauts who will be going into space for six days; the blood will then be sent to the University of Malta for analysis.

"We know that a million red blood cells per second get destroyed in space when compared to Earth, which results in roughly 54% more cells destroyed in people that travel to space than those that remain on earth," he said during a recent interview. "Knowing how these red blood cells are destroyed, why, and how it can be mitigated will allow us to devise better therapies aimed at treating blood disorders such as thalassaemia and sickle cell disease."

"We are already a group of four people working in various analysis working groups at NASA's Gene Lab, with data from Maleth missions already deposited and available as part of open science research," he said.

For Joe, it is a dream come true, not just for him and his team, but for the University, for all the patients that might benefit, for young researchers and for life sciences. And to think that it all started because he finally had time to read those articles...

"Imagine if it could help us to prevent or reduce the number of amputations..."

Christine Gatt

or Christine Gatt, space really is the final frontier: she has never even watched Star Trek. So when Prof. Joe Borg asked her what she thought about sending some samples into space, she just stared at him.

"I thought he was joking!" she laughed.

Christine, a medical laboratory scientist at Mater Dei specialised in microbiology and human infections, was reading for a Ph.D. and had eventually decided to study the microbiome of diabetic foot ulcers. These are notoriously resistant to treatment and unfortunately very often result in minor amputations.

Malta has the dubious honour of having one of the highest prevalences of Type II diabetes in Europe, which is linked to lifestyle factors such as diet and exercise. This unfortunately results in a considerable number of amputations every year.

"It is very traumatic to have a toe removed... and then another and another. It is all very difficult for patients and really affects their quality of life," she explained.

When she found out that the International Space Station has a large laboratory used for a plethora of experiments, she immediately realised the importance of Prof. Borg's idea: a big part of the research is understanding how bacteria become resistant to stress – and that stress is not only caused by exposure to antibiotics but also to microgravity in space.

The Malta team only had a year in which to put the project together, from raising funding and sorting out the ethics involved, to collecting the samples, getting them to Florida and then to the ISS in August 2021.

The project was looking at two aspects: the bacteria that were causing the infection; and the skin tissue itself.

Christine contacted the vascular surgery team, under Prof. Kevin Cassar, who immediately accepted to join the project. They would notify her when an amputation was being done so that she could collect the samples straight away – the advantage of having everything in one hospital!

The scientific part then kicked in: growing bacterial cultures; setting up controls against which the space samples would be compared; and so on. In many ways, getting the samples into space and back was only the beginning. The samples have to be submitted to a variety of tests, with parts also frozen for eventual genetic analysis.

The first foray into space was followed up a year later by Maleth II, and in March 2023, by an international collaboration with Saudi Arabia, the United Arab Emirates and the US. This latter trip involved samples taken from patients at King Faisal Research Hospital in Saudi, as well as those from Maltese patients, and skin scrapings taken from healthy Maltese controls.

"It has been such an exciting time. We could watch the samples via cameras while they were in the ISS, and we monitored the temperature – 30 degrees – so we could keep the control samples at the same temperature.

"From a medical point of view, it was also very interesting, as treatment here is usually based on UK standards but Malta is very different: for example, the amount of time we spend outdoors and barefoot! And the temperature and humidity in the Saudi environment are much closer to ours so it will be interesting to compare."

Of course, Christine's research goes well beyond the Maleth project, and over a few months she collected samples from over 100 amputations, as well as normal healthy skin swabs from each patient.

"We are still in the early stages of analysing it all, but we hope to learn more about what could affect bacterial resistance or their DNA, and this in turn might enable us to improve patient care and management. Imagine if it could help us to prevent or reduce the number of amputations..."





Top: Maleth 3 – Christine Gatt (second from right) and Maria Vella from the University of Malta, together with Mauro Ricci and Veronica Botti (Space Application Services) and Leonardo Barilaro (MCAST)



CREATING LEGACIES Research in ALS

t all started when the family were planning the funeral. One of Heidi's children pointed out that there would be so many flowers, given how many things their dad had been associated with.

Indeed, Anthony Rizzo, known to his friends as Turu, left behind a veritable legacy. He had worked at Air Malta and had been the CEO of Enemalta, Water Services Corporation, the Malta Resources Authority and the Circular Economy Malta. Beyond his work life, he had been involved with the Scouts for decades, was active in a cycling group and part of the Christian Life Community, to name but a few. His premature death, at the age of just 62, would undoubtedly generate an outpouring of appreciation.

It did not take Heidi long to decide. The comment about the flowers brought to mind Turu's mantra: "Let's help to do good!" Rather than flowers, why not ask people to donate to a cause? And the immediate choice was RIDT. "Anthony had already donated samples of his blood for research into the disease that killed him. If I had asked him what to do, this is what he would have wanted," she said.

The family were right: many people wanted to express their gratitude for all that Turu had meant to them and the money poured in. Heidi donated over €8,000 to RIDT, and there are still people contacting her about ways to donate more.

It all helps Heidi tremendously, providing solace as she struggles to cope with her loss. She is still stunned by the speed with which the disease reduced him to a shadow of his former self. In November 2021, he was busy doing up their flat in Xemxija, and when he came home complaining of back pain, she was sure that he had been overdoing it. But the pain persisted. Eventually, a doctor injected gel into his spine to replace the natural gel that had been drying up – but at that stage it was still all being taken as part of the ageing process.

The months passed and the back pain seemed to have been solved, but a friend of theirs – a doctor – noticed during a social gathering that his breathing seemed quite laboured, his voice more constricted. He was assessed at Mater Dei Hospital but still no cause could be found.

Heidi started to worry: his breathing became more laboured; he lost his appetite, he started to stoop. He arranged for someone to drive him to work as he refused



Mrs Heidi Rizzo presenting the donation on behalf of the Anthony Rizzo Memorial ALS Research Fund. Photo by James Moffett

to stay at home, but she noticed that he could hardly lift his feet up the two stairs at the entrance to their house.

By April, just a few months later, he choked while eating a tiny sandwich, was admitted to the Intensive Therapy Unit at Mater Dei – and never left.

It was only a week later that the diagnosis came in: a very rare form of amyotrophic lateral sclerosis, known as ALS. The disease, which affects nerve cells in the brain and spinal cord, normally affects the extremities and then works its way towards the main organs. Turu's was different, starting with his lungs and spine and rapidly making its way to his limbs.

"It was one in five million," Heidi explained. "We knew about ALS from Bjorn Formosa, who was diagnosed when he was just 28. And the 2014 Ice Bucket Challenge had made people around the world aware of it. But this was reverse ALS. It was so rare that the doctors treating him were in touch with the Mayo Clinic in the USA, who wanted to learn all that they could about the debilitating condition.

"Turu knew what was happening and when he was asked by the neurosurgeon to answer questions about the disease and to donate blood for research at the University of Malta he did not hesitate. It is so typical that he would think of others, even though he was hardly able to eat, just lying there surrounded by machines, with pipes everywhere." Time slows down at ITU. His wife and children sat listening to the bleeps of the machines and waited. Turu was determined to last long enough to see his new grandson, and 10 days after his daughter gave birth, he passed peacefully away in May 2022.

The money raised for RIDT established the Anthony Rizzo Memorial ALS Research Fund in his honour.

Prof. Ruben Cauchi and his team of scientists are working on the genetics of motor neuron diseases, including ALS. The work centres around the patients' blood samples, which are stored at the University's biobank.

"Sequencing [of the DNA] helps us understand the changes in patients' DNA, which in turn provides us with pointers for potential new therapies," Prof. Cauchi explained during the presentation of the funds, stressing the importance of donations.

RIDT CEO Wilfred Kenely believes that this appeal for donations in lieu of flowers is an inspiration for others, and that it is "the best way to celebrate the memory of those who have left us".

Donations to research on ALS at the University of Malta can be made by visiting researchtrustmalta.eu/donate

Europa Donna sponsors second Ph.D. Scholarship

ocal NGO Europa Donna Malta has generously donated €40,000, to be used to fund a second Ph.D. scholarship in breast cancer research at the University of Malta.

The first Ph.D. scholarship funded by Europa Donna Malta was awarded to Dr Istvan Mifsud whose ongoing research is aimed at identifying the biomarkers associated with early metastatic breast cancer.

The donation was presented by the president of the NGO, Gertrude Abela, to the RIDT CEO Wilfred Kenely, following the annual Hilda Schembri Memorial Lecture, held on 27 October 2022 at the University of Malta Valletta Campus. The lecture is held to honour the memory of the NGO's founder, Hilda Schembri, and in 2022 the theme was appropriately linked to the decision to fund a second Ph.D.: "Research, Innovation and the Way Forward". The lecture was chaired by leading surgeon Mr John Agius, and the panel featured some of the top researchers from the University of Malta. The participants were Prof. Godfrey Grech, Ms Stella Kyriakides, Dr Claude Magri, Ms Anna Catania, Ms Mariella Smeir and Ms Clare Busuttil, as well as the Ph.D. researcher Dr Mifsud.

This was not the only event organised by Europa Donna Malta last year. It also organised a visit for its members to the cancer research labs at the University of Malta where Dr Mifsud was able to guide them through his line of research. The participants, which included Mr Kenely, also met Prof. Godfrey Grech from the Department of Pathology, who is Dr Mifsud's Ph.D. supervisor.

Europa Donna Malta is a breast care support group, and is a member of Europa Donna, the European breast cancer coalition. It was set up to raise awareness about breast cancer and breast health in Malta and to support people affected by the disease.

- Breast cancer is the most commonly diagnosed cancer in women with more than two million cases reported annually worldwide.
- In Malta, 79 people died of breast cancer in 2019 (Eurostat), representing 2.1% of all deaths. In 2020, Malta had the fifth highest breast screening rate of the EU Member States.
- While incidence rates of breast cancer have increased over the past decade, death rates have declined or stabilised, reflecting increases in survival rates due also to earlier diagnosis and better treatment (Health at a Glance: Europe 2020)



In recognition of Europa Donna Malta's continuous support, RIDT CEO Wilfred Kenely presented the president of Europa Donna Malta Gertrude Abela with a commemorative plaque.



Top: Europa Donna officials visiting UM cancer research labs and meeting with Dr Istvan Mifsud, recipient of the first Europa Donna Ph.D. Scholarship. *Photo by James Moffett*

Bottom left: Europa Donna President Gertrude Abela presenting donation to RIDT CEO Wilfred Kenely. Bottom right: Europa Donna officials and UM researchers.





Further support for renal research by LifeCycle

Dr Edith Said, from the Department of Anatomy at the University of Malta, is very clear about what her team's research is trying to achieve: they have found that the genetic profile of Maltese patients with polycystic kidney disease differs from that reported in other countries. The team was looking for variants in the genes, using next generation sequencing and bioinformatic analysis. This methodology allows several genes to be analysed with a single test.

The study started in October 2019, identifying the families affected by this condition. The team's painstaking work was successful: they found novel mutations which have not yet been reported in scientific literature. The team is now analysing these but the allimportant question is clear: does this mean that once a patient is diagnosed, they could test and diagnose other members of the family – using a DNA test – even before they develop any clinical symptoms? "Gene therapy is still at the research phase but the fact that it may be available in the future makes it even more important to identify individuals having ADPKD," she said.

ADPKD is the most commonly inherited kidney disorder and a significant cause of end-stage renal disease. There is no exact data on how many people have this condition in Malta, although preliminary data indicate that the point prevalence of ADPKD for the Maltese adult population is 2.1 per 10,000 inhabitants – which means a potential of over 100 people at any point in time.

The Malta team is currently looking to collaborate with overseas researchers. And the results have been significant enough to be published at international and local conferences. They will soon be published in an international journal.

However, this sort of research depends on significant resources. The University of Malta started its kidney research programme in 2014, with the help of €70,000 donated by the LifeCycle Foundation, which organises an extreme annual cycling challenge to raise funds for kidney disease. The programme, conducted in collaboration with the Department of Medicine and the Department of Pathology at Mater Dei Hospital, was aimed at prevention, diagnosis and treatment of kidney disease.

Over the next few years, much ground was covered. A kidney disease biobank was established and the research project of the genetics of congenital kidney disease in Maltese children was launched with the aim of improving the quality of life of patients. Research is also being carried



of the University of Malta, by Alan Curry, founder of the LifeCycle (Malta) Foundation and chairperson Shirley Cefai, in the presence of representatives of Nescafé, the main sponsor of this year's challenge, and members of the RIDT research team.

Photo by James Moffett

out on adult diabetic nephropathy, which refers to the kidney disorders secondary to type 2 diabetes – a common disease and a common complication.

However, this is not the full story of LifeCycle's involvement. The Foundation has been helping the Renal Unit and its patients for over two decades: since 1999. When COVID-19 meant that its cycling challenges were not possible, it organised LifeWalks instead. Over the years, hundreds of cyclists have taken part in what is considered in Europe to be one of the gruelling endurance events, covering an average of 2,000km in just ten days. The extreme event has taken its message across the world, from Japan to South America: a total of 53 countries. The 2023 challenge will see cyclists ride from Bangkok in Thailand to Kuala Lumpur in Malaysia.

The work has paid off: LifeCycle has raised an estimated €3,200,000 over the past years to help improve the lives

of kidney disease patients, covering three principle areas: awareness, treatment and research.

€ 25.000

Its most recent donation was made to RIDT in October 2022, when the Foundation and its sponsor Nescafé donated €25,000.

This was the fourth year that Nescafé supported the Foundation, which it sees as being in line with its own position to promote healthy lifestyles, enhancing the quality of life as well as its commitment to the wellbeing of the communities in which it operates.

The University Rector Prof. Alfred J. Vella said: "This type of research cannot be carried out, unless we have adequate funding. Malta will benefit from advanced research in kidney disease and I applaud our researchers as well as academics, who are making this happen with the constant support given by the RIDT."

Chair in Economics Central Bank of Malta re-instates Chair in Economics

The Central Bank of Malta (CBM) has re-established the Central Bank of Malta Chair in Economics and related studies within the Faculty of Economics, Management and Accountancy (FEMA) at the University of Malta.

The CBM signed an agreement in July 2022 covering three academic years with the University of Malta and the RIDT.

The \in 30,000 agreement enables the Faculty to engage foreign professors of economics to provide professional consultancy and to participate in seminars organised mainly by the University but also by the CBM.

The chair was first endowed by the CBM in 2012, when €108,000 was donated to cover the costs for a 4-year period. It was subsequently renewed in 2016. The aim was for the foreign professors to lecture students registered for the Honours course and part-time students in the Master of Arts in Economics. Central Bank of Malta employees remain entitled to preferential terms when applying for the latter.

The CBM has a vibrant economics unit, which contributes greatly to independent and autonomous assessments of various aspects of the Maltese economy, published in its own regular publications as well as other journals.



Front Row from left: Professor Saviour Zammit on behalf of RIDT, CBM Governor Professor Edward Scicluna and UM Rector Professor Alfred Vella. Second Row from left: CBM Deputy Governor Alexander Demarco, CBM Chief Operating Officer Daniele Romano, CBM Chief Officer-Economics Dr Aaron Grech, UM Head of Department of Economics, Dr Carl Camilleri.

Women in Research

nspirational. Dedicated. Resilient. The number of adjectives that could be applied to these extraordinary researchers is truly endless. They operate in a wide range of sectors, from medicine and culture to archaeology and transport. The one thing they all have in common is their curiosity and their ability to keep asking questions even when bogged down with administration, chasing funds and reams of data awaiting analysis.

They all see themselves as researchers first and foremost, and – yes – also as women. They saw their participation in this section as a positive opportunity to encourage other people to go into research.

- Research and development contribute to one of the Sustainable Development Goals. According to the UNESCO Institute for Statistics (UIS), just over 30% of the world's researchers in 2021 were women, up from 29.3% in 2019.
- There are also challenges. Various studies have found that women in STEM fields, for example, publish less, and are paid less for their research. They also do not progress as far as men in their careers. However, there is very little data at the international or even country level showing the extent of these disparities.
- According to the UNESCO report, in 2019, worldwide, women represented 53% of bachelor's and master's graduates. At the Ph.D. level, 43% were women, and 28% of research positions were occupied by women.
- In Malta, the percentage of female researchers stood at 33.4% in 2019 (the last year for which UIS had data), up from 28.5% in 2015.

Prof. Eleanor Scerri Affiliate Associate Professor, Classics & Archaeology - Faculty of Arts

Many people have only a vague idea of what they want to become when they grow up. For Eleanor Scerri, there was never any doubt. At the tender age of four, her parents took her to the Natural History Museum in London, and the seed was sown.

"I told them it was the most important day of my life," she laughed, adding that when she was just eight, she wrote an essay on the evolution of vascular plants.

"From a young age, I had told my parents that I wanted to study evolution. I never had any doubt about what I wanted to do with my life." She could never have dreamed that her work would turn on their head the current theories of humankind's origins. Over the course of her career, she had three key questions that haunted her: how did the species evolve in Africa; why did some of them leave; and what was their impact on the environment before agriculture.

The dominant theory of evolution says that humans originated within a single region and population in Africa. Her research has changed that model and argues that there were multiple stems of population contributing to the roots of our species. These were spread across the African continent, and at times may have even lived in South West Asia. >



The new theory was a hard sell, in spite of the solid arguments that had been built up to support it. From those involved in genetics to those working with fossils, all had to reconsider their data in the light of this new theory that she had driven. After several publications, including in Nature [journal], her work was not only widely accepted, but also increasingly validated.

"I like to compare it to the story of the drunk looking for his lost keys on the floor under the lamplight. We need to venture beyond that circle of light if we are to find the keys!"

At the beginning of her quest, this meant exploring different places in Africa, rather than focussing on the more traditional regions.

"Whenever I got some funding, no matter how small the amount, I would jump into a rusty 4x4 with all the food I needed packed into a bag, a gas canister and a tent and I would drive into the African bush to see what I could find! Slowly, slowly I would report on all the things that I found and it built up. As a project, it started from nothing so handling multimillion research projects now is something I would never have imagined back then," she admitted.

She remains as driven now as she was at the beginning of her quest: "There are still so many unanswered questions. We do not know how many regions of Africa played a role in the human story. We do not know how many stem populations there were or precisely when these populations were isolated or connected. People also left Africa multiple times but those populations died out when they got to Eurasia. We don't know why all the non-Africans today are descended from one group of people who left Africa about 50,000 years ago.

"What was so special about that one group and their circumstances? We do not know the answer to that and it is something that we are trying to investigate.

"For a long time, there was this idea that, before agriculture, the environment was pristine with hunter-gatherers living in harmony with nature. That picture is almost certainly not true. Hunter-gatherers were altering the location and the composition of faunal and vegetal communities.

"At the moment, a major theme in ecology suggests that our current understanding of the biosphere is based on a world artificially devoid of large land animals – the so-called megafauna – that died over the last 50,000 years. These animals were essential to healthy ecosystem function, and no one can agree on why they died, for example.

"One of the projects that I am working on in Malta is a microcosm of that question: you have a small island – so you have controlled conditions – and you have a dwarf megafauna, which were nonetheless the giants in their ecosystem. We need to understand what drove their extinction and more about the consequences of those extinctions over the last 50,000 years."

The questions are not academic. After all, two of the current crises – climate change and biodiversity loss – need those answers.

"I am very grateful to have the ability to tackle these questions and very fortunate to have a team of very clever people working for me who help me to answer them."

Prof. Therese Hunter Associate Professor, Physiology & Biochemistry -Faculty of Medicine & Surgery

Therese Hunter doesn't seek the limelight. When asked to describe her role, she laughed: "We are the eccentric scientists in the basement."

To be fair, actually describing what she does can be quite a mouthful. Her team uses biochemical and biophysical techniques to study the structure and functions of proteins, in order to understand the mechanism of diseases such as cancer and metabolic disease. They are also important when it comes to drug design.

Remember COVID-19 and the 'protein spikes'? Remember how important they were when designing vaccines? And how changes to the proteins caused new variants with different characteristics?

Well, there you go.

Going into research was not the obvious career for Therese. She speaks wistfully about her eldest brother Laurence – who passed away a year ago – who helped her find contacts in New York, also funding her studies and putting her up.



"I was just 24 when I joined the University of Malta as an assistant lecturer... It was just me in the Department! There is a sense of pioneering as there has been so much progress – more equipment, more personnel, more research – within the University and within the Faculty and the Department. Perhaps the newer members of staff do not realise what it was like..."

Therese paused when asked why she opted for academia and research, rather than – perhaps – a job in the private sector.

"It takes a particular kind of person. You are always looking to understand, just for the sake of understanding. But there is also an element of discovery, even in the small things that you find. There is already so much in the literature and it is so easy to assume that there is nothing left to discover.

"But researchers are explorers in their own way. They research life itself, and the application of what we find... You need a lot of patience and a lot of perseverance, and an underlying curiosity that has to be allowed to grow..." she explained.

Working in such a specific field is not without its drawbacks. "My daughter is now 27 but when she was around eight or so, she did not know how to explain to people what I do as I did not fall into the more traditional categories. Our lab was called the 'worm lab' as we used to grow nematode worms for research as we had identified a unique gene in them. So she told her schoolmates that I studied worms!" she laughed.

The reality is much more interesting, if not as catchy for 8-year-olds. In disease, genes mutate and as a result the proteins change structure. Therese's was the first group in Malta to map the structure of a protein, something which had been done in other countries but not here.

However, Therese does not only gauge success by the science but also by the people that have passed through the department and faculty.

"Now that I am older, I have changed my approach. I feel I now have a duty to ensure that young people can fulfil >

their dreams with regards to science. In the past, a lot of people did not have the opportunity but 5-6 years ago I opened a course in medical biochemistry, which can be followed by a Masters or Ph.D.. The students have spread across the world – working in all sorts of fields from forensic science to assisted fertilisation. "I am pleasantly surprised to meet people who love science for the sake of science. It gives me great satisfaction. We started with nothing but have now made opportunities for the future."

Prof. Vicki Ann Cremona Theatre Studies - School of Performing Arts

Although Vicki Ann is well known for theatre – she is, after all, a professor in theatre studies at the University of Malta – her research is more specifically in theatrical events.

"Once we opened the horizon to theatricality, so many things in Malta needed to be examined, such as Carnival, processions, protests... even Parliament! It allowed me to look at Maltese realities through the lens that interests me: the relationship between theatre and power," she explained.



"This is the common thread in my research. Theatre either interprets power, through satire for example, or is conditioned by power. If we take, for example, the Prince's Box in a theatre such as the Manoel, it was a symbol of power.

"It is also about what is not allowed, through censorship; for example, in Carnival having satire aimed at politicians. So suddenly seeing theatre in relation to power brings along a whole development of micro-history as a way to look at the macro-historical picture. The small stories give you a very different outlook on the larger historical reality.

"You are not looking at the major events but people and their everyday relationship with the times in which they lived and how they perceived historical realities. This is what my writings tried to shed light on. I wrote an article about the protests after Daphne Caruana Galizia was murdered. If you look at them in a theatrical perspective, you end up with a sociological study of this theatricality (which a protest is a form of) with people who want to attract attention, to be seen, for example."

Looking back over the decades since she started her quest, Vicki Ann has been able to track change, sometimes dramatic and sometimes more nuanced. For example, this year (2023) there was no satire in the Carnival. It could be an interesting point to study, she thought: Is it because people are fed up of the political parties? Because they do not dare to criticise? Because the float makers favour one party rather than another and do not want to cause offence? What is important is to look at things in this new way to make them aware of perspectives, things that before were taken for granted, she commented. Vicki Ann admitted that the biggest thrill is going through the archives – the National Archives and the National Library mostly – finding letters, documents and photos which make you sit down in amazement that things might not have been as we had been told.

As a historian, she stressed that even contemporary events are part of history: "It is important to bring these documents to life. To make people understand that these are not just musty old papers but stories that tell us who we were and who we are today."

As is so often the case with research, funding is crucial. RIDT is helping Prof. Cremona find funding for her new fullcolour book but she has in the meantime had a first: she won the Research Excellence Fund, which she saw as a real breakthrough. "It was huge that this fund was awarded to the arts, as sciences usually get all the funds and arts get nothing. It allowed me to now consider telling these stories, not only through books but perhaps through a documentary, working with a filmmaker, allowing people to speak in English or Maltese, with subtitles so that it could reach more people."

Another problem is space: "It is difficult to convince the University that we too need a 'laboratory', just as biology and chemistry do. We need somewhere to try out physical work, work with text. It is an uphill struggle to persuade people that this too is research. Whether through text or posture, it is all about the body and this is the line between amateur and professional theatre. The actor has to be aware of every single gesture. If you don't have space to work on that, it is a problem."

Dr Martina Sciberras Medical Doctor and Researcher

Artina Sciberras has been a specialist in gastroenterology since 2017, but when asked by strangers what she does, she confesses to a mischievous moment: should she tell them that she tests people's stools?

Most of the time, she resists the urge – although it is actually a very important part of the research into coeliac disease that she is doing, thanks to a donation of \leq 41,000 from an Italian company that makes gluten-free products, Dr Schaer, made through RIDT.

Dr Sciberras is on a mission: she believes that – based on the prevalence in Western countries – there may be as many as 5,000 people in Malta who have coeliac disease and don't know it.

This is one of the main reasons that she decided to take on this 3-year, part-time project, with the all-important support of her supervisor Prof. Pierre Ellul, her colleagues and her family.

Letters were sent to 1,000 people at random, inviting them to be tested with a simple pin prick. Those who

tested positive for the antibodies that denote the body's inflammatory response to coeliac disease are invited to have an endoscopy and for their stools to be tested. As >



she waits for all the cases to be processed, the results are already impressive: 0.8% of the people tested are positive for the disease.

She recalled treating a woman in her 50s who had had a rash for most of her life that defied treatment.

"She was positive for coeliac disease and once she started her new diet, all her skin symptoms disappeared. Her GP called me a few months later to tell me how grateful she was! I don't blame doctors or patients because there is such a wide range of symptoms: headaches, hair loss, fatigue, osteoporosis, weight loss and even weight gain!"

It is perhaps hard for us to understand how you may be living with a disease and not know it.

"We call this the coeliac iceberg. You can see those who are diagnosed – we know of 1,500 people who have it – but underneath the surface there are so many more that are not visible, who either have no symptoms or who live with them or who ignore them assuming that they are normal," she said.

However, it is the social aspect of the disease that fuelled her determination. Because it involves food – specifically gluten – it has an impact on people's lives through their ability to go to restaurants or to socialise at friends' houses. "The fact that you need to spend your life on a strict gluten free diet is very tough. So you need to spend time discussing these issues with your patients. That affected me profoundly when I was in my clinic and that is why this was such an obvious choice for my research" she said.

Her research analyses the microbiome of those with the disease, comparing the bacteria and colonies in their stools before they change their diet. She will then check them again after they have been on a gluten-free diet for a year or so.

"We know from previous studies that there are changes between those who do not have the disease and people who do. Could those changes be responsible for them getting the disease? For example, twins who have the same genetic make up do not get the same diseases. So there must be other factors," she explained.

However, apart from the medical research, she hopes to raise awareness, especially when it comes to restaurants.

"You need to know that even a crumb of gluten can affect a coeliac patient. You cannot, for example, cook gluten free pasta in the same water used for normal pasta! Establishments really need to learn how important it is to avoid cross-contamination so that patrons can feel safe."

Prof. Maria Attard

Director - Institute for Climate Change and Sustainable Development & Head of Department of Geography, Faculty of Arts

Maria Attard is known for her boundless energy but she is, first and foremost, an optimist. So the obvious place to start with her story is somewhere positive: in September 2023, she will be giving the annual lecture at the Royal Geographical Society in the UK, an event dedicated to the legendary transport geographer Brian Hoyle.

She was also recently awarded the Transportation Chair in the Benelux.

She mentioned these things only after substantial prodding, and only to make the point that it is these wins

that encourage her to continue her work trying to change transport behaviour in Malta.

She is adamant that there have been wins, and many of them. For the first ten years of her career she was in academia while also working with policy-makers. The projects implemented left a huge impact on the Maltese way of life, such as the launch of the park-and-ride system, and the pedestrianisation of Merchants Street.

In those years, she used to adopt a top-down approach to sustainable mobility. Now an academic

and associate professor, she has adopted a bottom-up approach as the most effective way to instigate change. This means working with communities and reaching out to them to get them to appreciate the need for better road environments, better options for pedestrians, for the elderly to be able to walk safely.

"We have been doing this for the last 10 years: focusing on active travel, on behaviour, and to get people to change – rather than trying to influence politics. Politicians have all the evidence they need. What they need is public support!" she said.

This is easier said than done, as anyone knows who has tried to remove a parking space from a locality. Hence, the bottom-up approach she has adopted as she believes it is all a matter of engaging with communities and explaining things to them.

She recalled a project in one of the villages. She and her team did surveys, compiled all the information, determined how the street environment could be improved and how the traffic could be reduced. They asked the local council to gather the community so that they could present their findings.

"We told the packed hall that we would remove parking, perhaps providing it elsewhere – but that they would end up with a pedestrianised area to enjoy. There were so many other benefits that we outlined, including how much more their property would be worth if the setting had fewer cars and more trees. We were offering an outdoor environment that was conducive to becoming part of a community rather than feeling like an alien in their own village."

The research was eventually presented at conferences in two continents and won an award from Transport Malta. It was even included in the national transport strategy as a case study.

You would think this was one of the victories that encouraged her to keep trying, but the story does not have a happy ending: the project was not implemented. There were endless institutional problems and the team was sent from one entity to another. In the end, they had to give up. Undeterred, she worked on projects to – for example – improve the infrastructure for walking and cycling. "We tried to provide evidence to policy-makers that you can achieve great results with even the smallest of changes.



If you invest in roads, you get more cars. If you invest in pavements, you get more people walking. But you need to make the investment and for some reason this is not seen as a 'sexy' policy," she lamented.

She frets that changing behaviour can be frustratingly slow, especially since she sees the hidden costs of our transport situation.

"It is costing the economy hugely in terms of obesity, cardiac disease, respiratory problems etc...The health crisis is barely talked about. And we should also be talking about climate change. Our dependence on cars affects air pollution – and transport is the main culprit," she said.

Yet again, her natural optimism kicked in and she talked about all that has been achieved in the past years.

"We want to get to the public to make people more aware of life beyond 'my' parking space. I think it has worked. There is greater awareness and many activist NGOs. Many of their supporters were my students; some have formed their own groups. It is frustrating, I agree. But there are so many more active young people than a decade ago; their energy is contagious. I support them in any way possible."

RIDT EVENTS

Grandmaster's Delights

An evening of art and beauty at the Grandmaster's Palace, Valletta

A litese composer and pianist Karl Fiorini played his piano sonata in the Tapestry Hall, while Clare Ghigo sang arias by Frescobaldi, Caccini and Purcell, accompanied on the harp by Anne Marie Camilleri Podesta in the Throne Room.

This was the setting for the RIDT's Gala Fundraising event held on 10 June 2022 in aid of the conservation of the Great Siege mural by Matteo Perez D'Aleccio. Guests were treated to an evening of art and beauty, during which they had the opportunity to see the progress of this conservation project, and also to meet the conservation team in person. The project was undertaken by the Department of Conservation and Built Heritage of the University of Malta, headed by Prof. JoAnn Cassar.

Lead conservator Jennifer Porter gave a detailed presentation about the methodology being used in the project and about the history of the mural, with particular reference to its previous conservation attempts.



RIDT EVENTS

Christmas Celebration Concert

The annual RIDT Christmas concert is an eagerlyawaited event, an opportunity for the Trust to thank its stakeholders. These range from the all-important sponsors, whose funds make its work possible, to the researchers whose projects are taken to the next level of progress. The concert could not be held for the past three years, making the 2022 event an even more important date on the calendar.

The concert was held on Tuesday 13 December 2022 at the 16th Century Jesuits' Church in Valletta – one of the oldest churches in Valletta. It brought together singers from the Goldberg Ensemble and members of the Malta Philharmonic Orchestra, under the baton of Mro Michael Laus. The Goldberg Ensemble is made up of 24 singers from many of the outstanding choirs on the island. They perform a wide range of music but focus primarily on Baroque choral music. The Ensemble was the brainchild of Mro Laus, who remains its director.

The "Christmas Celebration Concert" programme featured over a dozen pieces, ranging from Brazilian, Russian and Sicilian carols, to more traditional ones.

The evening was rounded off just a few steps away at the adjacent University of Malta Valletta Campus foyer, where the guests were invited to enjoy mulled wine and mince pies generously offered by AX Hotels.



From left: RIDT CEO Wilfred Kenely, Mro Michael Laus, and RIDT SEO Claudette Buttigieg *Photo by Joseph Galea*



Top: The Malta Philharmonic Orchestra Middle: Mro Michael Laus Bottom: The Goldberg Ensemble *Photos by Joseph Galea*



Communicating our message

Throughout the year in report, RIDT made constant efforts to spread the word and make its work known to all. This was achieved through a constant presence in the media. Radio, television, printed and social media were pivotal.

RIĊERKATURI

Wilfred Kenely, RIDT's CEO, hosted his weekly programme "Ricerkaturi" on Campus FM. The programme takes a casual format through which listeners get to know leading researchers and their work at the University of Malta. Through the musical interludes chosen by the researchers themselves, we also get to know the person behind the researcher.

This year "Riċerkaturi" saw an important change to the scheduling. A second repeat was added to the weekly programme. This gave RIDT the possibility to make itself known to a wider audience. During the two sets of programmes, "Riċerkaturi" hosted 24 guests, mainly researchers from a wide range of areas of studies. Other guests included regular donors and supporters.







GUEST APPEARANCES

Throughout 2022, RIDT was given the opportunity to promote research and funding through guest appearances on TV and radio programmes. Wilfred Kenely and researchers from the University of Malta made regular guest appearances on TVM, Net TV, One TV and 103FM. Popular presenters Stephanie Spiteri, Josef Bonello, Matilde Balzan and Angele Galea were instrumental in helping RIDT to inform Maltese TV and radio audiences on how research helps to find solutions and how supporting research through funding is essential.

SOCIAL MEDIA

RIDT continues to use popular social media platforms to keep the community well informed about the initiatives which continue to support research. This year the main focus was on Facebook, Instagram and LinkedIn.





New position at RIDT

Claudette Buttigieg

Claudette Buttigieg can clearly remember the point at which she filed RIDT in her mind as a great entity to support: in 2012, a fundraising music album was being put together based on the poems of Karmenu Vassallo, and composer Dominic Galea – who knew her as a singer – asked her to participate.

"The album raised money for the Trust – we still have a few in the office! – and I thought at the time that it was such a good cause," she said.

Fast forward over a decade to September 2022, when she joined the Trust full-time as a senior executive officer.

"Many people will associate me with politics, with singing, and with two decades as a TV programme presenter... But my background is actually advertising, and sales and marketing. When this vacancy came up for a full -time role, I thought immediately that it would be a great fit," she said.

Her role at RIDT is that of a matchmaker – bringing funds and research ideas together, whichever side is seeking a counterpart. Her numerous contacts, from every aspect of her life, are invaluable.

"We come across so many people where I can recall meeting them or dealing with them in a completely different context! You have to boldly pick up the phone and tell people 'we need help' because we are setting up a team to do research in a particular area. It's selling all the time! Instead of doing it commercially, I am now doing it for a cause. "We are also seeing a shift and are finding a lot of companies seeking to do something related to their environmental, social and governance impact, whose only restriction is that they want to fund a particular sector, while others might even want to commission specific research. You cannot imagine how many researchers there are who have a long wishlist of topics that they want to work on, who leap at the chance once funding becomes available," she explained.

"It is all about that moment when it clicks and the link is made. Sometimes, it has nothing to do with the business itself, but you mention something about the research – often when it is medical – and when you are talking about the project there is that moment of recognition that sparks their interest."

Since she joined RIDT, she has realised just how much work is done behind the scenes: she and CEO Wilfred Kenely put their boundless energy into fundraising events, meetings with sponsors and researchers, reporting requirements, media contributions and signing ceremonies when their matchmaking is successful.

"Research is all about trial and error. But it is wonderful to see it happening! After all, the quality of the life we live today is the result of yesterday's research. At RIDT every day is a new adventure and I am so happy to help people to create a legacy!" she said.

"I am really happy working here and I appreciate that not everyone can say that about their work. I have found my place."

Our Supporters

As a bank with a century-old history of engagement in the community, we always promoted education and knowledge as central to our ethos. In RIDT, we immediately saw a project that resonates loudly with what we are as a bank, as research introduces the person to new ideas, expands one's knowledge and leads to creativity and innovation. So we felt a real, tantalising need to support all this for the benefit of society.

While research is normally thought of as something that requires endless budgets and very deep pockets, the prospect of being able to contribute to this goal – even if in a small way, and in our micro-environment – was too good to disregard. There is no limit to the good which RIDT's activities can bring to our islands; equally there are never enough funds to sustain the breadth of study and knowledge-based enterprise that we can develop as a nation.

Mindful that the State cannot drive this agenda on its own, APS Bank has been a proud supporter of the University of Malta, and of RIDT in particular, for years. We support them in various ways and forms, from direct financial contribution to fund-raising events. And we are proud to say that RIDT is always there in our minds when we come to planning our CSR budget – a permanent name on the list!



Marcel Cassar CEO, APS Bank Plc

The Melita Foundation

As a sponsor, the board of The Melita Foundation has experienced first-hand the profound impact of supporting projects, and we wholeheartedly encourage others to follow suit. Being a sponsor has positively affected the lives of those we have helped and, for each of us on the board, enriched our own perspective on life.

Sponsorship has enabled The Melita Foundation to provide essential support for vital projects and to help individuals reach their full potential. Providing funding makes a tangible difference, whether it's through supporting digital skills, heritage, creativity or the environment.

The personal connection that forms



between the sponsor and the sponsored is truly remarkable. We have learned from voluntary and professional groups dedicated to the environment, disadvantaged cohorts, technological advancement, developing creativity and enriching our culture. Through direct engagement and visits, we have witnessed the transformative power of knowing someone cares and supports various causes. The bond that develops is one of respect, gratitude, admiration and hope. The Melita Foundation urges others to join us by becoming sponsors. Contribution to social projects can break down barriers, unlock potential and provide opportunities that may otherwise be out of reach. Sponsorship goes beyond financial assistance. It is about building relationships, sharing experiences, and bridging perspectives. It is about being part of a growing community that values the dignity and tremendous worth of every human being.



Oliver Magro Executive Chairman, Planning Authority

The Planning Authority wholeheartedly chose to support the restoration works on the unique wall paintings in the Grand Master's Palace that illustrate in detail the 1565 Great Siege battle because of its two-fold approach.

Not only will the project ensure that these prestigious wall paintings are restored to their former glory but it is serving to provide our future generation of conservation scientists with the training and practical experience they require. It is only by exposing our students to such high-level professional projects within a closely-supervised setting that they can excel in this discipline and gain first-hand experience in the conservation of decorative architectural surfaces.

We commend RIDT for its unwavering dedication and commitment to conserve one of Malta's most prestigious works of art. The meticulous process used throughout this project has been backed by valuable research and innovative conservation practices. These two ingredients are sure to give a new generation of professional conservators the latest standards of practice and skill sets that are vital for the future of quality conservation in Malta.

Maria & James Grima Calleja



Eight months before getting married, while making plans and preparations for our big day, my husband and I felt we needed to do something different regarding souvenirs for our guests. We did not want the usual 'boring' trinkets but

wanted to make a difference and donate money to a good cause. Since I have been a research manager at the University of Malta for six years, I know first-hand the importance of research and its impact on our society. I also appreciate the value of supporting such research through funding which is sometimes lacking.

My husband and I thus decided to donate to RIDT; it was an honour for us to do so and we were delighted to receive great feedback from all our guests.

We are aware of the huge work done by RIDT to find funds within our society which support a broad spectrum of research: blue sky (early); medical; environmental; humanities; conservation; and much much more.

We encourage other couples to donate to RIDT as their 'wedding souvenirs' or for any other special occasion – such a beautiful opportunity to contribute towards research and leave an invaluable legacy.

How can you help?

RIDT works effortlessly to reach out to prospective supporters. By working in the community, and through a regular media and social media presence, the aim is always to make members of our society aware of ongoing, high-end research projects.

From corporate businesses to SMEs, from NGOs to individuals, the spectrum of prospective supporters willing to fund research and innovation at the University of Malta is definitely wide and varied. To appeal to such a diverse audience, we are constantly working on initiatives which will engage with new and repeat supporters to yield the much needed funds. The *Making Memories* and *Welbee's Supermarket* campaigns are a clear example of this.







GIVING IN CELEBRATION

Celebrations are an essential part of our family and social life. Be it a wedding, a special anniversary, the birth of a new member of the family, a birthday or any other celebration, these are all occasions where people come together. While celebrating, we continue to create new and long lasting memories.

The campaign **Making Memories** – Giving in Celebration is an appeal to all those celebrating a special occasion to donate money to RIDT to support research in Alzheimer's disease, which causes dementia. Researchers across the world, including at the University of Malta, are closing in on finding effective therapies for Alzheimer's disease, thus ensuring a better quality of life for future generations.

By making a donation towards our **Making Memories** campaign, you'll be helping to fund the development of new treatments in dementia. RIDT will provide you with bookmarks as souvenirs for each guest to inform them of your generous donation on their behalf. To find out more, visit **www.ridt.org.mt**

Welbee's Supermarket – every point counts

RIDT is benefitting from points generated from the loyalty scheme at Welbee's Supermarkets. Clients generously donate these points through the Welbee's app, specifically for research through RIDT.

We continue to encourage all Welbee's Supermarkets' clients to donate towards the vast array of research

projects underway in different areas which include medicine, humanities, environment, climate change, social wellbeing and much more.

Donating Welbee points is very simple. For further information please visit **www.ridt.org.mt**

Other ways you can help

Make a donation

You can make a donation either online, via www.ridt.org.mt or by transferring funds to this account:

Account Name: RIDT Donations IBAN: MT45VALL2201300000040019904377 SWIFT CODE: VALLMTMT Bank: Bank of Valletta

Alternatively, send cheques by mail to: RIDT, University of Malta, Valletta Campus, St Paul's Street, Valletta, Malta

Offer ongoing support

Regular donations from individuals or companies, either in cash or in kind, are also very welcome. Please contact RIDT for more details on how to set this up.

Leave a lasting legacy

Remember RIDT when drawing up a will, or make a donation towards research in memory of a departed loved one.

Join the University Staff Contribution Scheme

All members of staff of the University of Malta, whether academic or non-academic, can contribute any amount from their salary. Such contributions are deducted before tax, which means they would cost less for the person making the contribution. Details are online at **www.ridt.org.mt**.

Get in touch

We hope you enjoyed the stories in this report. If you would like to offer support, or learn more about any of the projects mentioned, please contact us:

🖬 info@ridt.org.mt | 🚯 /RIDTMalta | 💿 ridtmalta | 🛅 RIDT - University of Malta Research Trust | 🖡 ridt.org.mt

The University of Malta Research, Innovation and Development Trust Management Accounts December 2022

INCOME AND EXPENDITURE

	Year ended 31 December 2022	Year ended 31 December 2021
Income		
Donations - Unrestricted	17,410	31,558
Donations - Specific	405,672	290,505
Donations - Equipment in kind	58,974	-
Bank interest	12,063	-
University subsidy	112,433	-
Commission	69,697	54,726
	676,249	376,789
Specific endowments	405,672	290,505
Donations - Equipment in kind	58,974	-
Donations		4,500
	464,646	295,005
Expenditure		
Salaries	100,606	74,061
Marketing	9,026	3,392
Fundraising expenses	6,621	-
Communications	1,152	1,198
Hospitality	1,546	859
Bank interest	11,826	-
Stationery	653	195
Transport	7	14
Other	15	15

Net Surplus	80,151	800

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131,452

1,250

80,984

Audit fees

The University of Malta Research, Innovation and Development Trust Management Accounts December 2022

BALANCE SHEET

	As at 31/12/2022	As at 31/12/2021
Assets		
Current assets		
Accrued income	281,258	138,734
Bank balance	3,725,041	3,438,428
Commission	4,006,299	3,577,162
Total assets	4,006,299	3,577,162

Reserves and liabilities

Specific endowments	702,997	740,314
Capital account	800,000	800,000
Reserves	(778,144)	(858,295)
	724,853	682,019

Current liabilities

Accruals	7,347	6,250
Other Creditors	10,000	10,000
Owed to University	3,264,099	2,878,893
	3,281,446	2,895,143
Total reserves and liabilities	4,006,299	3,577,162

We thank our supporters. You kept us going over the years.

Corporates

3a Malta Ltd Adpro-Instruments Ltd Alberta Group Alegria Dance Company **APS Bank plc** Arkafort Atlas Insurance Ltd **Bart Enterprises** Bit 8 Ltd **BPC International Ltd** C&F Ent. Ltd Camilleri Paris Mode Cherubino Ltd **Class Optical** Demajo Group Dr. Schaer E.J. Busuttil Ltd Entropay Ltd Evolve Ltd Express Group FIMBank plc Foster Clark Ltd GlaxoSmithKline Malta Ltd Hotjar Ltd ICP Ltd ISL Ltd **Ixaris Systems Ltd Kitchen Concepts** Ledger Ltd Logus Ltd Malta University Holding Company Maltco Ltd **ME** Direct Medical Laboratory Services Ltd Modern Refrigeration Ltd **Mvintage Jewellers Piscopo Gardens** Pro-Health I td Rahuma International Ltd **RCI Insurance Riverdream Ltd** Singleron Biotechnologies Suratek Ltd T4B Ltd

Technoline Ltd The Malta Chamber of Commerce, Enterprise & Industry The Malta Freeport Terminals Ltd The Phoenicia Hotel Tipico Ltd Volatila Ltd World Express Logistics

Foundations

Action for Breast Cancer Foundation ADRC Trust **ALIVE Charity Foundation** ALS Malta Foundation **AX** Foundation **Beating Hearts Malta** Europadonna Malta Foyle Research Institute UK Gasan Foundation **HSBC** Malta Foundation Lifecycle Malta Foundation Malta Heart Foundation Melita Foundation P. Cutajar Foundation **Rare Disease Alliance** The Alfred Mizzi Foundation The Malta Community Chest Fund The Marigold Foundation Vodafone Foundation Youth for the Environment

Individuals

Alaine Handa Alberta Group staff Alessio Magro Alexia Baldacchino Anna Maria and Paul Borg Anne Cadle & friends Beatrice Axiaq Betsson staff Chiswick House School Christine Zerafa Cynthia Grech Sammut David Attard Francis Gregory

Francis Nicholson Gertrude and Tony Abela **Godfrey Baldacchino** Guzeppi Theuma Heidi Rizzo & family **Jackson Said** Janatha Stubbs Jonathan Shaw Jose L. Ribera Joseph and Rose Attard Josette Fenech Juanito Camilleri Julian Grech Marcelle Abela Maria and James Grima Calleja Marthese Caruana Martin & Lucilla Spillane MBR staff Michelle Gialanze Nicholas Sammut Paul Sant Cassia Philip Attard **RCI Insurance staff Robert Arrigo** Silvio Agius St. Francis Secondary school St. Martin's College **Stephanie Kotes** Stephanie Spiteri Tonio Casapinta University Futsal Team

Public

institutions Central Bank of Malta Malta Enterprise Malta Philharmonic Orchestra Ministry for Energy, Enterprise and Sustainable Development Ministry for Equality, Research and Innovation Regulator for Water and Energy Services Teatru Manoel The National Lotteries Good Causes Fund The Planning Authority Development Fund



The University of Malta Research, Innovation & Development Trust

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