

Malta X Anniversary and COVID-19

by Emma Zajdela and Zafra Lerman

In December 2021, the Malta X Conference “Frontiers of Science: Innovation, Research and Education in the Middle East—A Bridge to Peace” will mark the celebration of the tenth anniversary of the Malta Conferences. The first Malta Conference was held on the island of Malta in 2003 amidst the height of the Second Intifada. Since then, the Malta Conferences Foundation (MCF) has been a pioneer in using science diplomacy as a bridge to peace and sustainable development in the Middle East [1]. MCF uses science diplomacy to advance the following four UN Sustainable Development Goals: 1. Ensure inclusive and quality education for all (Goal 4) 2. Ensure access of Water and Sanitation for all (Goal 6) 3. Ensure access to affordable, reliable, sustainable, and modern Energy for all (Goal 7), and 4. Promote Peace and Justice, as well as inclusive societies (Goal 16). In 2016, MCF received the UN NOVUS Summit award for Goal 16: Peace and Justice [2]. The Summit was held in the UN General Assembly.

Widespread conflicts, spurred by a deteriorating environment, rapidly expanding populations, unsustainable water and energy supplies [3], inadequate educational institutions, unequal access to medical treatment and supplies, and most recently, the COVID-19 pandemic threaten civilization in the world. Science diplomacy is the best tool to address these issues, especially in regions of conflict. The Malta Conferences are the only platform in the world that brings together scientists

from fifteen Middle East countries (Bahrain, Egypt, Iraq, Iran, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, and the United Arab Emirates), Morocco, and Pakistan with several Nobel Laureates to form multinational collaborations in order to address these problems, which affect the region and the world. Although Pakistan is not part of the Middle East, Pakistani scientists requested to participate in the Malta Conferences in order to use the Malta model for science diplomacy between Pakistan and India.

Since its inception, MCF has held the strong belief that to use science diplomacy for peace and stability in the Middle East, all countries in the Middle East must be involved, not just Israel and Palestine, the focal point of tension in the region and the focal point of diplomatic efforts from the world. Therefore, MCF has worked on developing collaborations between Israel and other Arab nations. The attendees at the Malta Conferences were diverse in gender, religion, career stage, and cultures; they came from academia, industry, and government.

Many dignitaries have participated in the Malta Conferences. Director-General of UNESCO, Irina Bokova, and His Royal Highness Prince Hassan of Jordan [4] attended Malta V, which was held by invitation at UNESCO’s headquarters in Paris as one of the last events of the 2011 International Year of Chemistry. His Excellency Dr. George Abela, President of the Republic of Malta attended Malta VI. Her Excellency Marie Louise Coleiro Preca, President of the Republic of Malta, the Maltese Minister of Education and Employment, and a member of the French parliament attended Malta VII (in Morocco) and Malta VIII. His Excellency Dr. George Vella, President of the Republic of Malta and the Maltese Minister of Education and Employment attended Malta IX. Several ambassadors participate in every Malta Conference.

More than 700 scientists have attended these conferences. Since these scientists, professors, and institute directors influence large numbers of students and the public, the impact represents an enormous multiplier over the conferences alone. The Malta Conferences have yielded results that are a cornerstone for a bridge to peace and sustainable development in the Middle East [5, 6], a model which could be implemented in other regions of conflict.

At Malta IX the introduction of interactive workshops co-chaired by a scientist and an entrepreneur encouraged collaborations and launching startups. A woman’s forum was also initiated in Malta IX as a platform to discuss the role of women in science and in science diplomacy, in addition to developing guidelines



Yaseen Al-Soud of Jordan discusses a poster at Malta IX.



The Malta IX Head table from Left to Right: Fadila Boughanemi, Deputy Head of Unit, European Commission, DG Research and Innovation; Ambassador Roberto Tanzi-Albi, Senior Adviser, Ministry for Foreign Affairs of Finland; His Excellency George Vella, President of the Republic of Malta; Zafra Lerman, President, Malta Conferences Foundation; His Excellency Stuart Gill, OBE, British High Commissioner for Malta; and Mark Schapiro, Charge d'affaires, American Embassy in Malta

on how to encourage girls in the Middle East to pursue STEM fields. MCF provides an opportunity for students and early-career scientists to interact for five days with several Nobel Laureates and many distinguished scientists [7]. This forum is important in preparing the next generation to be successful in science diplomacy.

The COVID-19 pandemic has highlighted the importance of science diplomacy, which will continue to be crucial during the post-COVID period and especially among countries whose governments are hostile to one another. Science diplomacy can overcome cultural, religious, and political boundaries that other forms of diplomacy cannot.

With the current COVID-19 situation, dangerous misinformation has been appearing on social media and other outlets. COVID-19 prompted MCF to come up with creative ways to inform all the participants about the pandemic, research, and collaborations which contribute to the solution. MCF organized a series of virtual conferences for the participants of the Malta Conferences concentrating on COVID-19. The first virtual conference, held on 30 September 2020, was titled *Insights on the collaboration between Pluristem Therapeutics (Haifa, Israel) and Abu Dhabi (UAE) Stem Cells Center (ADSCC) concerning Covid-19*.

This is the first joint project which brings together the expertise and knowledge of Pluristem (Israel) and ADSCC (UAE) to advance a potential COVID-19 treatment. The project will involve the first-time administration of Pluristem's PLX cells via a nebulizer, a drug delivery device that helps a patient inhale a medication through a mask or mouthpiece, to COVID-19 patients. The collaboration will allow ADSCC to expand its stem cell therapy options using Pluristem's novel PLX cells, while enabling Pluristem to leverage ADSCC's nebulizer administration experience to develop a new treatment delivery model for PLX cells. ADSCC has reported effectively using nebulizers to treat patients suffering from COVID-19 infection with stem cells sourced from the patient's own blood.

Many publications were the result of this conference [8-14]. Yaky Yanay, Pluristem CEO and President, was hopeful about continuing collaborations following the conference. "We were very honored to unveil our first joint projects with the ADSCC at the Malta Conferences Foundation." He continued "We see our partnership as a movement between Israel and the UAE, which we hope will lay the foundation for future collaborations that will help potentially bring change to our region and the entire world. As we work together to develop regenerative medicine for key unmet medical needs of benefit to patients around the world, we are excited for the future and its possibilities."

Dr. Yendry Ventura, General Manager of ADSCC, was also optimistic about working with Pluristem "Embarking on this journey with Pluristem, to overcome one of this generation's most complex medical challenges, marks an exciting new chapter full of possibilities when it comes to knowledge sharing and medical innovation. Our partnership speaks volumes about the power of collaboration between partners across previously divided border." [8]

Although a virtual conference, the participants had the opportunity to interact with the presenters, ask questions, and have a discussion. Many of the participants discussed the opportunity to collaborate with the speakers. The reaction of the participants was extremely favorable. The speakers agreed to participate in Malta X.

The second virtual meeting on 14 October 2020, titled *Insights into Science-Diplomacy on Covid-19*, featured speaker Victor J. Dzau M.D., President of the US National Academy of Medicine [15].

In his presentation, Dr. Dzau described the role of the Global Preparedness Monitoring Board (GPMB), which is an independent monitoring and accountability body to ensure preparedness for global health crises. It was created in response to recommendations from the UN Secretary General's Global Health Crises Task Force in 2017. The GPMB was co-convened by the World

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Health Organization and the World Bank Group and formally launched in May 2018. Comprised of political leaders, agency principals and world-class experts, the Board provides an independent and comprehensive appraisal for policy makers and the world about progress towards increased preparedness and response capacity for disease outbreaks and other emergencies with health consequences. Its 2019 Annual Report, titled *A World at Risk* warned of the very real threat of “a rapidly spreading pandemic due to a lethal respiratory pathogen” and the need for determined political leadership at national and global levels (Figure 1). This report was published several months before COVID-19 but was largely ignored.

Dr. Dzau emphasized the impact of COVID-19, noting that the pandemic endangers all populations and is undermining all of the Sustainable Development Goals. For example, in global health, 90 % of healthcare systems were disrupted; in education, 1.6 billion students out of school; in climate, reduction of 30 % investment

in clean energy transition; in poverty, there will be an increase of an additional 135 million people by 2030. He concluded that COVID-19 taught us that “we live in a world where a shock anywhere can become a catastrophe everywhere, which means we are interconnected.”

Another initiative by MCF during COVID-19 is a virtual laboratory with an inventory of scientific equipment where Malta Conference participants who are lacking equipment for certain tests can send their samples to other laboratories in different countries to perform the required testing.

The Malta Conferences Foundation’s mission is to address the shared desire to improve quality of life and political stability in the Middle East by identifying unique opportunities for collaboration to meet the scientific and technological challenges of the region. The Malta Conferences deal with issues of science education, air and water quality, nuclear and chemical security, access to medical treatment and supplies, and alternative energy sources, among other topics of

16 Nobel Laureates Participated in the 9 Malta Conferences




1. Rudolph A. Marcus (1992, Chemistry), 2. Aaron Ciechanover (2004, Chemistry), 3. F. Sherwood Rowland (1995, Chemistry), 4. Danny Shechtman (2011, Chemistry), 5. Jean-Marie Lehn (1987, Chemistry), 6. Martin Karplus (2013, Chemistry), 7. Dudley R. Herschbach (1984, Chemistry), 8. Ada E. Yonath (2009, Chemistry), 9. Ben L. Feringa (2016, Chemistry), 10. Claude Cohen-Tannoudji (1997, Physics), 11. Richard R. Ernst (1991, Chemistry), 12. Tim Hunt (2001, Physiology or Medicine), 13. Yuan T. Lee (1986, Chemistry), 14. Walter Kohn (1998, Chemistry), 15. Roald Hoffmann (1981, Chemistry), 16. Robert H. Grubbs (2005, Chemistry)

mutual interest. Global leaders have recognized that science diplomacy is an extremely important mechanism for working toward stability in the Middle East, and this is what the Malta Conferences have done for the past two decades.

Many obstacles and challenges had to be overcome for every single Malta Conference. For example, the visa issue is almost insurmountable and requires working with embassies in many of the countries in the Middle East and with the government of the countries where the conference is hosted. Although work securing visas starts two years in advance of the conference, it is usually not clear until a few hours before the start of the conference that every invited participant will be able to attend. However, with tremendous effort from MCF, all the participants manage to arrive by the day of the opening ceremony.

Despite the immense challenges and obstacles, there are notable successes. Many personal friendships and cross-border collaborations have been formed. During the Malta VII in Morocco, meetings with several ministers from the government of Morocco and with the advisor to the King took place discussing relationships between Israel and Morocco. These negotiations started in 2015 and helped to achieve the normalization of the relationship between the two countries in 2020.

In a time when the world's eyes are focused on scientists for solutions, and media reports appear hopeless, MCF is offering a fresh approach through science diplomacy. The role of science diplomacy as a promoter of collaborative efforts among scientists is both diplomatic and educational. Improving human lives through science diplomacy has been, and continues to be, the mission of the Malta Conferences Foundation. 

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