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Women in Science and Technology International Visitors with OES Assistant Secretary Dr. Kerri-Ann Jones

Accomplished Scientists and Engineers Meet with Assistant Secretary Kerri-Ann Jones: Pictured above, an International Visitor Leadership Program group of women scientists from Muslim majority countries met with Dr. Jones in her Washington office on Oct. 27. Many of these women were honored in our 2010 inaugural group of NEA's Women in Science Hall of Fame. During that morning at the State Department, these outstanding women also met with Farah Pandith, U.S. Special Representative to Muslim Communities, and Dr. Sandra Laney, who is spearheading a program to attract women in Muslim-majority countries to consider studying science, technology, engineering, and math at one of the 56 all-women's colleges in the United States.



Charlie Swartz, Embassy Tel Aviv, and participants hold up the t-shirt made for the day. Photo by Caron De Mars

“World Diabetes Day” at Augusta Victoria Hospital, Jerusalem: The Consul General of U.S. Consulate Jerusalem, Daniel Rubinstein, delivered opening remarks at Augusta Victoria Hospital’s diabetes awareness event for children with Type 1 diabetes on Friday, November 18. Augusta Victoria Hospital is one of East Jerusalem’s most well-known and prestigious hospitals that treat primarily Palestinian patients from the West Bank, East Jerusalem, and Gaza. The event was funded by a USD 6,000 grant from the Bureau of Oceans and International Environmental and Scientific Affairs (OES) via Embassy Tel Aviv. Sixty children and their parents from the West Bank and East Jerusalem participated in the event, and learned how to control their diabetes with activities, games, and entertainment. Type 1 diabetes affects an estimated 5,000 Palestinian children, who have an average of 12% glycemic control (a healthy level is less than 7%). The event was covered by Al Quds newspaper and As-Shams press outlet; click below for the stories: <http://www.alquds.com/pdfs/pdf-docs/2011/11/20/page4.pdf>, and <http://www.ashams.com/art,63835>. The text of the CG’s speech can be found here: http://jerusalem.usconsulate.gov/st_111811.html



Children posed with CG Rubenstein after his opening remarks at the World Diabetes Day Event. Photo courtesy of Consulate Jerusalem

Iraqi Chemists and Chemical Engineers Meet in Amman: I was an opening speaker for a session on chemical safety and security in Amman on November 13. Dozens of Iraqi chemists and chemical engineers met for the week-long seminar in Amman to look at case studies and discuss lessons learned from chemical disasters. One of the most tragic case

studies was a BP chemical explosion that took place in Texas City, Texas in 2005, which resulted in 15 fatalities and 170 injuries. The scientists discussed how these lessons could be applied to prevent chemical mishaps in Iraq. These chemical security programs were first launched Southeast Asia in 2007 by State's Office of Critical Threat Reduction. The training has since been expanded to include scientists in SCA and NEA.

Highlights of Israel Trip Nov. 16-18:

WATEC Conference: We attended part of this multi-day conference which drew dynamic speakers from all over the world. In the Foreign Service, we sometimes lose touch of the challenges and solutions that the United States faces. Therefore, I'm highlighting the talks of the two American speakers. **Dr. Sharon Megdal, Director of the University of Arizona Water Resources Research Center:** Seven arid western states rely on the Colorado River Basin, including Arizona. There are several challenges in managing that resource: many farmers still use flood irrigation; water rights are held in perpetuity; and there is uneven regulation. Even within each state there are shared water issues. This problem is amplified in Arizona due to water resources shared with Native American Reservations and Mexico. Additional concerns are scarcity, a lack of a water plan, climate variability, and laws that allow pumping to 1000 feet. She listed solutions such as conservation programs, desalinization, tiered pricing, rainwater harvesting, water banking, shortage sharing, and monetary deals. **Pat Mulroy, General Manager of Southern Nevada Water Authority:** Nevada is also one of the seven states in the Colorado River Basin, and Ms. Mulroy's jurisdiction includes Las Vegas. Climate change has already compromised the state's resources: Lake Mead is only at 40% of its capacity. Her water authority has entered into shortage arrangement with neighboring states and has budgeted \$200 million to buy water during draught. Las Vegas has conservation programs and reuses 100% of its water. The Authority pays customers to take out grass, won't allow rainwater harvesting since water needs to go into the recharge zone, and has four tiers of water tariffs. She contends that the seven states and Mexico need integrated resource plan: negotiations are ongoing with the states, and the Departments of State and Interior. Further, she contends that individuals shouldn't be able to harvest water and greywater should be recycled into drinking water.

Friends of the Earth Middle East (FoEME): FoEME's Gidon Bromberg told us FoEME organized a water conference in September with 16 attendees each from Jordan, Israel, and Palestinian Territories to gather support for rehabilitation of the Jordan River. He had commitment for rehabilitation from the Israel's water authority. He also commented that Israel's Environmental Minister supports the rehabilitation and also endorses FoEME's regional water plan.

The Israeli government has agreed to stop high water withdrawals at current levels from the Sea of Galilee and will no longer allow the dumping of sewage on the Israeli side into the Jordan River, which both feeds into and flows from that lake. Mr. Bromberg contends that five to seven consecutive years of good rainfall could lead to flooding to rehabilitate river and lake with the reduction of water uptake, reducing fish ponds, and sewage treatment improvement.

BIRD and TRIDE: We met with Dr. Eitan Yudilevich, who oversees BIRD – the Binational and Industrial Research and Development – and TRIDE - Trilateral Industrial Development. **BIRD** is a foundation established in 1977 with a \$110 million endowment with the objective to fund joint projects between Israel and the U.S., which lead to commercialization. Typical grants are \$1 million and primarily attract big U.S. and small Israeli firms. These are conditional grants with repayment based on sales if technology developed: 20-30% of BIRD's budget comes from repayment. When proposals are submitted, evaluators are

appointed by the U.S. National Institute of Standards & Technology (NIST), who in turn rank the projects and approve them for funding. Here is a success story: U.S. broadband and cable ARRIS (www.arrisi.com) teamed up with Israeli Resolute Networks Ltd. (www.resolutenetworks.com) to develop a cable network for multi-service operators with the support of a \$1.1 million grant. **TRIDE** is able to grant \$2 million per year for up to four projects for projects including Israeli, Jordanian, and U.S. companies. Dr. Yudilevich is most proud of a software program conceived by Jordanian, U.S., and Israeli partners in 2005, which would boost family interactions from a distance. Here are the resulting websites of that project: www.mygrandchild.com and www.mychilmymilitary.com. He said the prevailing political situation makes it more difficult to find Jordanian collaborators, but TRIDE is particularly interested in funding projects for increased energy efficiency and renewable energy. TRIDE has half a million dollars to go toward building a biogas plant. The U.S. no longer contributes money to TRIDE, but Dr. Yudilevich thinks it is important to keep the U.S. on the brand to encourage Jordanian collaboration.

Visit to Middle East Regional Cooperation (MERC) Grantees: I am on the MERC Committee that selects proposals for scientific cooperation between Arab and Israeli scientists. The State Department gives \$7 million per year to USAID to administer the grant program: grantees can get up to \$1 million per grant. The program was created in 1979 and the first grant was awarded in 1981. Initially, scientists from Israel, Jordan, and Egypt applied; the program has been expanded and later grants have been given to Israelis paired with Saudi, Iraqi, Algerian, Moroccan, and Tunisian collaborators. USAID's Dr. Kathleen Rankin and I visited the Marine Science Station in Aqaba, which has a project in which Jordanian and Israeli investigators are analyzing the waste excreted by farmed marine species. They are using different diets to determine the fish growth, water quality, and phosphorous levels in the excrement. In another project in Aqaba, seismologists from Jordan and Israel mapped fault lines in the Gulf of Aqaba. The Jordanian investigator presented the results to his government, which used the information to move Jordan's proposed nuclear plant site from Aqaba to Zarqa. A team of Israeli and Jordanian engineers have been studying sink holes around the Dead Sea since 2009 with funding through MERC. They have published their findings, and the forecasting sink holes in a particular inhabited area propelled the Jordanian government to move homes out of harm's way.

Other News:

Disclaimer: The following news articles do not represent the point of view of the ESTH Hub or any USG representative and are merely a collection of articles gathered from local and online media.

MENA - Winners of the L'Oreal-UNESCO Pan-Arab 2011 for Women in Science

Fellowship Announced: On December 07, Dr. Abdalla Alnajjar, president of the Arab Science and Technology Foundation (ASTF) announced the winners of the L'Oreal-UNESCO Pan-Arab for Women in Science Fellowships program 2011, managed by the Arab Science and Technology Foundation (ASTF). The fellowships covered 17 Arab countries and now in their second year in the Pan-Arab region, promote the importance of ensuring greater participation of women in science by offering awards to outstanding female postdoctoral researchers. The \$20,000 fellowships, to be given to each fellow, have been designed to provide practical help for the winners to undertake research in their chosen fields.

http://www.zawya.com/story.cfm/sidZAWYA20111208122610/The_winners_of_the_LOrealUNESCO_PanArab_2011_for_Women_in_Science_Fellowship. [Source: Zawya]

MENA - MEPI's Voice for Success: Voice for Success is a program initiated by en.v in collaboration with The Middle East Partnership Initiative (MEPI). This exciting initiative aims

to promote social activism in Kuwait by giving promising young activists greater visibility through targeted media platforms and campaigns throughout the course 2012 to stimulate greater interaction and knowledge sharing amongst active civil society groups at a national level and raise awareness about the most pressing social and environmental challenges of our time. For more information on this program, please download the brief and application form: http://socialprograms.envearth.com/category/region/kuwait/education-kuwait/voice-for-success?utm_source=en.v+Newsletter&utm_campaign=7b47f2bb38-en.v+Newsletter+042+22.09.11&utm_medium=email. [Source: en.v]

MENA – Water Shortages in Dead Sea Could Increase Tensions in Middle East:

Scientists studying ancient mud samples taken from the bed of the Dead Sea separating Israel and Jordan have warned that the fragile political situation in the Middle East will be made worse by the intense water shortages their study is predicting.

<http://www.independent.co.uk/news/science/water-shortages-in-dead-sea-could-increase-tensions-in-middle-east-6273289.html>. [Source: The Independent]

MENA - Arab Scientists Call for Funding for Regional Collaborations: Arab scientists have called for an increase in funding for research partnerships between the Arab states, whether by governments, civil society institutions, or the private sector. During the Qatar Foundation's Second Annual Research Forum on November 20–22, scientists noted the level of scientific collaboration in the Arab region has been minimal, leading to a duplication of efforts and limited research impact. <http://www.scidev.net/en/middle-east-and-north-africa/news/arab-scientists-call-for-funding-for-regional-collaborations.html>. [Source: SciDev.net]

MENA - Friends of the Earth Middle East awarded the Mount Zion Award 2011:

The award of the Mount Zion Foundation recognizes biannually the achievements of



Photo Courtesy of: EcoPeace – Friends of the Earth Middle East

individuals and organizations that made an outstanding contribution to the enhancement of dialogue between the different religions and cultures in the Holy Land. The award was founded by Wilhelm Salberg, a Catholic priest. It was launched in 1987 and is now in its 13th edition. The award ceremony took place in the Dormition Church in Jerusalem on October 30. In a solemn celebration the prize was handed over to the three Directors of FoEME: Gidon Bromberg (Israel); Munqeth Mehyar (Jordan); and Samiramis Kutlo, representing Nader Al-Khateeb (Palestinian Territories). For more information on the

award: <http://foeme.wordpress.com/2011/10/31/mount-zion-award-foeme/>. [Source: Friends of the Earth Middle East Blog]

JORDAN - Science: A Force for the Common Good: Princess *Sumaya bint El Hassan* of Jordan discusses how global cooperation on science can benefit a knowledge-hungry world.

<http://www.scidev.net/en/middle-east-and-north-africa/opinions/science-a-force-for-the-common-good.html>. [Source: SciDev.net]

JORDAN - Activists Call for an Open Nuclear Debate: Environmental activists called for an open debate on the country's atomic energy program on December 3, voicing concern over the feasibility of Amman's nuclear drive. The protestors criticized the new Prime Minister for reaffirming Amman's commitment to nuclear energy in his policy statement at a time when governments and experts are raising questions over the safety, reliability, and cost of atomic energy across the world and demanded a dialogue over a project they say may have unforeseen costs for future generations of Jordanians.

<http://www.jordantimes.com/index.php?news=43918>. [Source: The Jordan Times]

PALESTINIAN TERRITORIES– Hope for a Greener Future: The link below leads to an article by Khaled Al Sabawi, the founder and president of MENA Geothermal, a Palestinian green-energy business. MENA Geothermal was awarded the National Energy Globe Award in 2008 and is currently installing the Middle East's largest geothermal system in Jordan. Khaled was named "One of the World's Top Energy Entrepreneurs" by Global Post and was a speaker at this year's TEDxRamallah. Khaled is also the general manager of UCI, one of the largest real-estate development companies in the Palestinian Territories.

<http://www.thisweekinpalestine.com/details.php?id=3577&ed=201&edid=201>. [Source: This week in Palestine]

PALESTINIAN TERRITORIES – UNRWA to Launch First Environmental Zero Impact School in Gaza:

The United Nations Relief and Works Agency, UNRWA, has unveiled a groundbreaking pilot initiative to build as many as twenty "environmental zero impact" schools in the Gaza Strip. The blueprint was showcased by UNRWA at the UN Climate Change Conference in Durban, South Africa.

<http://www.unrwa.org/etemplate.php?id=1165%22>. [Source: UNRWA website]

ISRAEL - Officials Stress Water Cooperation at Conference: Deputy Foreign Minister Danny Ayalon asked Arab leaders to consider water as a catalyst for peace and stressed the importance of sharing renewable technologies, at the sixth annual international WATEC-Israel exhibition. <http://www.jpost.com/Sci-Tech/Article.aspx?id=245749>. [Source: Jerusalem Post]

ISRAEL - Greenpeace Protests Recycling Complacency: Two Greenpeace activists were arrested in Jerusalem on November 20 when they climbed up eight-meter flagpoles outside city hall attempting to display a giant banner to convey their message: "Stop recycling promises – begin recycling garbage, now!". <http://www.jpost.com/Sci-Tech/Article.aspx?id=245486>. [Source: The Jerusalem Post]

EGYPT - Scientists to Make Diabetes Drug from Bitter Fruit: Bitter gourd, a plant long held to have anti-diabetic properties, is to be turned into tablets that Egyptian scientists hope will provide an alternative to insulin injections. <http://www.scidev.net/en/middle-east-and-north-africa/news/egyptian-scientists-to-make-diabetes-drug-from-bitter-fruit.html>. [Source: SciDev.net]

EGYPT - Team Wins at Intel Challenge for Hepatitis C Detection: A team of entrepreneurs from Egypt came in third place at the seventh annual Intel Global Challenge at UC Berkeley, winning \$10,000 for an innovation that can detect Hepatitis C. NanoDiagX of Egypt uses gold nanoparticles to develop a virus test that can detect Hepatitis C in less than an hour, and at one-tenth the cost of current commercial tests, according to an Intel

statement. For more information: <http://thedailynewsegypt.com/it-a-telecom/egypt-team-wins-at-intel-challenge-for-hepatitis-c-detection.html#>. [Source: The Daily News Egypt]

MOROCCO - Innovation Centre Aids Start-Ups: The Moroccan Government offers assistance to small enterprises helping to expand the national economy. The Moroccan Innovation Centre (CMI) is designed to support businesses in critical sectors to implement new projects. The CMI was founded in July 2011 by the Ministry of Industry, Ministry of Finance, and the National Agency for the Promotion of Small and Medium Enterprises, on the principle that encouraging innovation helps to stimulate job creation and foster a culture of entrepreneurship.

http://www.magharebia.com/cocoon/awi/xhtml1/en_GB/features/awi/features/2011/10/11/feature-03. [Source: Magharebia.com]

BAHRAIN - Rising Sea Levels Threaten Country: Based on an Arctic Monitoring and Assessment Program report, Bahrain's UN resident coordinator Peter Grohmann declared that up to 22 per cent of Bahrain's land could be under water by the end of the century as a result of rising global sea levels. <http://www.gulf-daily-news.com/NewsDetails.aspx?storyid=317739>. [Source: Gulf Daily News]

U.A.E. – United Arab Emirates Elected to Chair IRENA Council: The United Arab Emirates has been elected as Chair of the Council of the International Renewable Energy Agency (IRENA) by its 21 members. Following the second meeting of the two-day Council in Abu Dhabi on November 13, the members also reviewed the work of the Agency in preparation for the upcoming Second Meeting of the Assembly on January 14, 15, 2012. The United Arab Emirates has also received approval on a proposition to create a trust fund in order to ensure the active participation of least developed countries and small island developing states. http://www.go-green.ae/greenstory_view.php?storyid=1898. [Source: Go-Green.ae]

YEMEN – The Country is Experiencing Two Revolutions: Thousands of female protesters have been actively participating in demonstrations across the country since February 2011. Female doctors have been playing an important role treating wounded protesters and female activists have been running seminars on political issues. The Government's security forces arrested four female doctors on April 19, 2011, while the doctors were marching along with a peaceful demonstration to provide medical help if needed. The female doctors were released after pressure from protesters. This is a double revolution; a political one to topple President Saleh and a feminist one to ensure that women have equal rights in what Yemenis hope will be a new Yemen.

http://edition.cnn.com/2011/11/17/opinion/yemen-revolution-afrah-nasser/index.html?hpt=imi_mid. [Source: CNN]

Green Tip of the month

Do you know the different ways to recycle CDs and DVDs? Here is a great link with information on how to recycle those shiny rounded plastics!

<http://earth911.com/recycling/electronics/cds-and-dvds/tips-for-recycling-cds-and-dvds/>