

# Sessions

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## **Finding New Sources of Water for Growth**

Habibah Al Menaie, Kuwait Institute for Scientific Research, Kuwait  
Rula Deeb, Geosyntec Consultants, United States

*Wastewater Management and Reuse: Motivations, Challenges and Opportunities in Developing Countries*

May A. Massoud, American University of Beirut, Lebanon

*Rethinking Wastewater: Water Reuse in the United States*

David L. Sedlak, University of California at Berkeley, United States

*Water Reuse in the State of Kuwait: Successes and Hopes*

Mohamed I. Ahmed, Kuwait Institute for Scientific Research, Water Resources Center, Kuwait

*Mitigating Risks to Sustainability in Desalination Technologies via Innovative Materials, Economic Analyses and Environmental Assessment*

Hassan A. Arafat, Masdar Institute of Science and Technology, United Arab Emirates

## **Old Energy, New Methods to Access Resources: The Hydraulic Fracturing Story**

Habibah Al Menaie, Kuwait Institute for Scientific Research, Kuwait  
Rula Deeb, Geosyntec Consultants, United States

*Water Management for Enhanced Sustainability and Economics of Shale Gas Development*

Kelvin B. Gregory, Carnegie Mellon University, United States

*Fracturing Challenges: The Journey to Innovative Solutions*

Mohammed Bataweel, Saudi Aramco, Saudi Arabia

*Fracture Geometry Characterizations through Physical Modeling*

Waleed Al-Bazzaz, Kuwait Institute for Scientific Research, Kuwait

*Technology Integration in Hydraulic Fracturing: Being Effective while Remaining Efficient*

Taner Batmaz, Schlumberger Oman & Co. LLC, Oman

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## **Global Food Security: Adaptations for the Future**

Nisreen Al-Quraan, Jordan University of Science and Technology, Jordan  
Joy Ward, University of Kansas, United States

*Adaptive Management of Water Resources in Grasslands: Challenges in a Changing World.*

Jesse Nippert, Kansas State University, United States

*Food Security in the Arab countries: Current Status and Future Scenarios*

Rezq Basheer-Salimia, Palestine Technical University, Palestine

*Climate Change: Threats to Water Resources and Food Security*

Ali Al-Shrouf, Abu Dhabi Food Control Authority, United Arab Emirates

*Seed Maturity and Drying Methods at Harvest are Critical to Seed Desiccation Tolerance and Quality: Impact on Food Security*

Nezar Samarah, Jordan University of Science and Technology, Jordan

## **Keynote**

Yaseen Al-Mulla, Sultan Qaboos University, Oman  
Sherien Elagroudy, Ain Shams University, Egypt

*Water-Energy-Food Nexus in the Arab Region: Risks and Opportunities*

Hani Sewilam, The American University in Cairo, Egypt

# Sessions

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## **Environmental Regulators of Cancer**

Mehdi Bourouba, University of Sciences and Technology H. Boumediene, Algeria  
Muhammad Zaman, Boston University, United States

*Epigenetics, a Link between Environmental Exposure and Cancer?*

Lifang Hou, Northwestern University, United States

*Effective Therapeutic Targeting of Leukemia Initiating Cells in Chronic Myeloid Leukemia*

Rihab Nasr, American University of Beirut, Lebanon

*Can Environmental Exposures that Damage Mitochondria Contribute to Cancer?*

Joel Meyer, Duke University, United States

*The Biological Clock in Health and Diseases*

Mohammed Boudjelal, King Abdullah International Medical Research Center, Saudi Arabia

## **Linkages**

Sherien Elagroudy, Ain Shams University, Egypt  
Hesham Hamoda, Boston Children's Hospital, United States

*Environmental Chemicals and Chronic Childhood Disease: Emerging Concerns and Possible Solutions*

Leonardo Trasande, New York University, United States

*Hydraulic Fracturing of Shales: Water Contamination Risks, Wastewater Management Strategies, and Emerging Research Challenges*

Brian Ellis, University of Michigan, United States

*Targeting Cancer with Dietary Bioactive Agents*

Mostafa Waly, Sultan Qaboos University, Oman

*Metabolomics an Emerging Technology Addressing Plant and Human Health Research Projects in the Post Genomic Era*

Mohamed A. Farag, Cairo University, Egypt