

Women in Science and Engineering

KAUST WORKSHOP

March 8 and 9, 2021



AGENDA

Chair: Prof. Niveen M. Khashab

CoChairs: Prof. Suzana Nunes, Prof. Deanna Lacoste

Day 1 – Monday, March 8, via zoom

- 08:45 - 08:55 Introduction by President Tony Chan
- 09:00 – 09:30 Katharina Kohse-Höinghaus, Bielefeld University, Germany
- 09:40 – 10:10 Karin Schroen, University of Wageningen, Netherlands
- 10:15 – 10:45 Claudia Caltagirone, University of Cagliari, Italy
- 10:50 – 11:20 Anne Bourdon, Ecole Polytechnique, France
- 11:25 – 11:55 Anna McConnell, University of Kiel, Germany
- 13:30 – 14:00 Sara Althari, Ministry of Investment, KSA
- 14:05 – 14:35 Jana Yamani, Middle East Broadcasting Center (MBC), KSA
- 14:40 – 15:10 Cally Haynes, University College London, UK
- 15:15 – 15:45 Carla Portugal, Nova University Lisbon, Portugal
- 15:50 – 16:50 Workshop Panel,
Lama Peyroles, KAUST, KSA
Jo D. Lamb, KAUST, KSA
Niveen M. Khashab, KAUST, KSA
Suzana Nunes, KAUST, KSA
Deanna Lacoste, KAUST, KSA
- 18:55 – 19:00 Provost Lawrence Carin, KAUST, KSA
- 19:00 – 19:15 Frances Arnold, CalTech, USA
- 18:00 – 23:00 Women at KAUST Celebration Event – By Invitation Only
(per HSE regulations)

Day 2 – Tuesday, March 9, via zoom

- 09:00 – 09:30 **Rong Wang**, Nanyang Technological University, Singapore
- 09:40 – 10:10 **Francesca De Domenico**, University of Cambridge, UK
- 10:15 – 10:45 **Luisa Torsi**, University of Bari Aldo Moro, Italy
- 10:50 – 11:20 **Zeynep Culfaz Emecen**, Middle East Technical University, Turkey
- 11:25 – 11:55 **Nabiha Chaumeix**, French National Centre for Scientific Research (CNRS), France
- 13:30 – 14:00 **Safa Saber**, KAUST, KSA
- 14:05 – 14:35 **Jessica Eid**, KAUST, KSA
- 14:40 – 15:40 **Lina Daouk-Öyry**, American University of Beirut/Aalto University, Lebanon, Finland
- 15:45 – 16:00 **Nimisha Rajawat**, KAUST, KSA
- 16:00 – 17:00 **Sara Skarbalak**, Indiana University Bloomington, USA (Closing Lecture)

This event sponsored by:

Office of Sponsored Research (OSR)

Advanced Membranes and Porous Materials Center (AMPMC)



Katharina Kohse-Höinghaus



Title: Women in Science and Engineering: Exotic or a normality?

Katharina Kohse-Höinghaus is a Professor of Physical Chemistry at Bielefeld University, Germany. Her research focuses on combustion combining chemistry, physics, and engineering. She has received many prestigious awards and honorary professorships, is a member of five academies, and has served in leading functions in professional societies and academic organizations. She is also a mother, a dedicated teacher and a mentor to early-career researchers. Her career has had multiple experiences of “the first woman” for a given position or appointment. Science to her is inspiration and an essence of life.

Her advice: remain curious!

Karin Schroën



Title: From small town kid, to being a professor in two Dutch universities

Karin Schroën is a full professor at Wageningen University (the Netherlands). Her field of research is food technology and she specializes in effects occurring at micro- and nanometer scale. She takes this as the starting point for the design of food processes that are intrinsically more sustainable.

She also holds several other functions, such as dean of technical sciences at Wageningen University, scientific director of graduate school VLAG, and she is also a chair holder at the university of Twente (Membrane Process for Food). She has >200 publications in scientific journals to her name, approximately 15 book chapters, and 7 patents. She is frequently asked as a (keynote) speaker at conferences, workshops etc.

Claudia Caltagirone



Title: A journey into the world of indole-containing receptors for anion recognition.

Claudia Caltagirone received her PhD degree in Inorganic Chemistry from the University of Cagliari under the supervision of Prof. Vito Lippolis in 2006. In the same year, she became assistant professor in Inorganic Chemistry in the Faculty of Science of the University of Cagliari. From 2006 to 2008, she was an academic visitor in the group of Prof. Philip A. Gale at the University of Southampton (UK). In March 2016, she was appointed to be an associate professor at the Dipartimento di Scienze Chimiche e Geologiche" (University of Cagliari).

She chose to study Chemistry because it was a challenge for her, she was curious about the subject, but not sure if she was able to do it. She thinks she won the challenge as she has succeeded in transforming a great passion into her job.

Anne Bourdon



Title: Why becoming a low-temperature plasma scientist

Anne Bourdon is a CNRS researcher working at the Laboratory of Plasma Physics (LPP) in France. Since 2016, she is the chair holder of a research project on the electric propulsion of satellites at Ecole Polytechnique (France). Since 2020, she is deputy director of LPP.

What she likes the most in her job is the opportunity to work with students and scientists in her lab and in collaboration with colleagues from different countries.

Anna McConnell



Title: A Supramolecular Journey Around the World: From Ion-Pair Receptors to Cages

Anna obtained a DPhil in Inorganic Chemistry from the University of Oxford in 2010. Following postdoctoral research stays at the California Institute of Technology and the University of Cambridge in the groups of Prof. Jacqueline Barton and Prof. Jonathan Nitschke, respectively, she became a Junior Professor at Christian-Albrechts-Universität zu Kiel in November 2016. Her research focuses on stimuli-responsive metal-organic cages, dynamic covalent chemistry and luminescent complexes.

Her advice: Don't be afraid to try something new, you learn and grow more as a person when you challenge yourself.

Sara Althari



Title: Non-linear career paths: the transferable skills of STEM

Dr. Sara Althari is an Advisor for Biotechnology and Healthcare at the Saudi Ministry of Investment where she is leading the development and activation of a value-based investment strategy for the biomedical science sector in the Kingdom. She holds a PhD in Genetics and Genomics from the University of Oxford where she was a Radcliffe Department of Medicine Scholar.

Sara's advice to a high school student: the foundational skill required to succeed in anything is self-awareness. If you cultivate a deep level of self-awareness and find something you are irrationally passionate about, you will be unstoppable!

Jana Yamani



Jana Yamani is the Executive Director of MBC Academy & MBC Talent. Her work focuses on developing the next generation of world-class content creators and media professional through offering educational and training programs that leverage MBC Group's infrastructure, while enabling the talents through the agency to take part in local, regional and international works and opportunities. Jana graduated with a master's degree in Computation for Design and Optimization from the Massachusetts Institute of Technology (MIT). Jana is a mother of five and resides in Riyadh, Saudi Arabia.

The thing that I'm most proud of and that drives me to do more, is when I see amazing talents that were part of programs that I led, succeed and become leaders in different organizations in the country.

Cally Haynes



Title: Teaching an old host new tricks

Cally Haynes grew up in London (UK) and studied for a PhD in supramolecular chemistry at the University of Southampton under the supervision of Prof. Phil Gale. In 2019, Cally became a Lecturer and group leader at University College London. Her research interests are in supramolecular chemistry, including molecular transport and separations, coordination driven self-assembly and the design of functional soft materials.

The most important quality that has helped me to be successful has been learning to ask for help instead of thinking I had to manage everything by myself.

The support of friends, colleagues and mentors makes us all stronger!

Carla Portugal



Title: Protein-surface interactions in membrane bioprocessing - a journey into a complex molecular beauty

Carla Portugal obtained a PhD in Chemical Engineering (membrane separation processes), in 2005, from NOVA School of Sciences and Technology. She is Assistant Researcher at the Associated Laboratory LAQV-Requimte, since 2009 and she is lecturer of classes on “Membranes in Regenerative Medicine”, since 2011. Carla Portugal has particular interest on understanding, monitoring and control of protein structural behavior and their interaction at/to surfaces, while using this knowledge for development of membrane processes with improved performance for bioprocessing. She authored over 60 invited and regular oral communications. She collaborated in the management of the network of excellence: Nano-Based Membrane Technologies – NanoMemPro (2006-2007) and from 2017-2021 she was member of the European Membrane Society (EMS) Council.

Jo D. Lamb



Jo Donna Lamb, obtaining Bachelor of Science in Civil Engineering and EIT from Columbia University and New York State Department of Education, respectively. She worked for the managerial departments for a number of universities and Piedmont Healthcare. Since Nov 2020, she has been working at Facilities Management Department of King Abdullah University of Science and Technology as the Director of Planning, Design, Engineering, & Construction (PDEC). She is a high-performance and results-driven team-builder with more than 18 years of experience in planning, design, construction, engineering, program/project management and maintenance planning. Her expertise includes organizational development, staff planning, strategic planning, client satisfaction, and schedule and budget/estimate management. She also possesses proven adeptness in leading and managing all phases of complex construction projects.

Lama Peyroles



Lama Peyroles is a French Consultant, Writer and Artist. She has previously worked as a War Reporter; a Middle-East Analyst; and News Anchor and Correspondent for AFP (Agence France Presse), RMC (Radio Monte Carlo), INA (Agence Nationale d'Information). Subsequently she worked as an International Image Consultant for Luxury Brands, and was Founder and CEO of Image Strategies, a consulting firm focusing on Cross Cultural Management, International Corporate Image and Media Consulting, Business Development, and Marketing. Recently she has been focusing on Performance, Leadership, Career and Personal Life Coaching. Lama has been also working on Creative Art Projects, House remodeling, Landscaping, Home Staging, and Interior Design Projects. Lama lived and worked several years in Paris (France), Beirut (Lebanon), Glasgow (Scotland), Yogyakarta (Java-Indonesia), Seoul (South Korea), Singapore, Sydney (Australia) and Rome (Italy). She has two children and has been living since a few years between KAUST (KSA) and Paris. She speaks fluently French, English, Middle Eastern Arabic and Indonesian.

Frances Arnold



Frances Hamilton Arnold is an American chemical engineer and Nobel Laureate. She is the Linus Pauling Professor of Chemical Engineering, Bioengineering and Biochemistry at the California Institute of Technology (Caltech). In 2018, she was awarded the Nobel Prize in Chemistry for pioneering the use of directed evolution to engineer enzymes. Frances Arnold is a director of Alphabet Inc. since December 2019. Since January 2021, she serves as an external co-chair of President Joe Biden's Council of Advisors on Science and Technology (PCAST).

Rong Wang



Title: Novel membrane development for water reuse and desalination

Dr Rong Wang is a Full Professor and President's Chair in Civil and Environmental Engineering at Nanyang Technological University (NTU), Singapore. She also holds the position of Director, Singapore Membrane Technology Centre (SMTC). She is a Fellow of the Academy of Engineering Singapore, and the founding President of Membrane Society in Singapore (MEMSIS). She specializes in novel membrane development for water production and wastewater treatment, liquid purification and gas separation, and in the development of novel hybrid membrane systems and process simulation. Dr Wang has over 300 SCI tracked journal publications (cited times: >16,800, h-index: 73 @Web of Science as Feb 2021) and is the inventor of 24 patents/technical disclosures for novel membrane fabrication.

Francesca De Domenico



Title: Fighting sound with lasers: shining some light on singing flames

Dr Francesca De Domenico is a Junior Research Fellow in Engineering at the University of Cambridge. She earned her BSc and MSc in Aerospace Engineering from the University of Padova (Italy) before moving to Cambridge for pursuing her PhD in Combustion and Applied Laser Diagnostics. During her PhD, she spent five months in KAUST developing laser diagnostics techniques for applications in combustion. Beyond flames and lasers, she loves travelling and doing all kinds of outdoor sports and activities.

Luisa Torsi



Title: Let's Shine a Light on Women in STEM

Torsi is professor of chemistry at the University of Bari and adjunct professor at Abo Academy University. She received her laurea degree in Physics and the PhD in Chemical Sciences from UNIBA and was post-doctoral fellow at Bell Labs in USA. She is also the only women awarded with the H.E. Merck prize. Recently, she was awarded with the Distinguished Women Award by the International Union of Pure and Applied Chemistry. Torsi has authored almost 200 ISI papers, including papers published in Science, Nature Materials. Her works gathered almost 13.000 Google scholar citations resulting in an h-index of 54. Gathered research funding for over 26 M€, comprises several European and national contracts.

Torsi is committed to the role-modeling for younger women scientists. In a recent campaign she was featured in a story of TOPOLINO (Italian comic digest-size series of Disney comics), as "Louise Torduck", a successful female scientist of the Calisota valley.

Zeynep Çulfaz-Emecen



Title: Back to cellulose for membranes: New applications in organic solvents and membrane fabrication without organic solvents

Zeynep Çulfaz-Emecen received her PhD degree in 2010 from the University of Twente, Membrane Science and Technology Group in the Netherlands. Since 2011, she is a faculty member in Chemical Engineering Department of Middle East Technical University (METU) in Turkey. Her research is on developing membranes and membrane-based processes for enhanced separations in chemical and biochemical industries as well as for water treatment and reuse. She is co-author of 23 publications, is principal investigator in several research projects supported by national funds and projects co-funded by international programs such as NSF and COST. She is the recipient of 2017 UNESCO-L'Oréal For Women in Science National Fellowship and a member of the Early Career Editorial Board of Journal of Membrane Science.

Nabiha Chaumexi



Title: A woman in combustion or a researcher in combustion

Dr. Nabiha CHAUMEIX, senior researcher at the ICARE-CNRS, the head of the “Shock Wave” group at ICARE has a Ph.D. in mechanical engineering (University of Orléans, 1993). She has over 20 years of experience in the flame dynamics, explosions safety and combustion chemical kinetics. She is actually deputy director of the French Research Network on Soot and President of the Institute of Dynamics of Explosions and Reactive Systems (IDERS) since August 2017. URL: <https://shockwaves-icare.cnrs.fr/>

Safa Saber



Title : Life Above the Clouds

Safa Saber is an experimental flight test pilot and a commercial airline pilot. She tested experimental fighters and flew 35 different types of aircraft in the US Air Force, and she has 1500 hours in the Boeing 737-NG and 737-Max. She has Master’s degrees in physics and flight test engineering and is now in the PhD program at KAUST. Two qualities that have helped her along the way are patience and perseverance.

Jessica Eid



Title: Innovation and Technology Transfer

Jessica Eid is a Senior Technology Commercialization Manager for the Physical Science and Engineering Division at the King Abdullah University of Science and Technology (KAUST) in Saudi Arabia. Jessica manages the intellectual property portfolios within the physical science division and drives the research and innovation activities through to commercialization.

Jessica earned a M.Sc. in inorganic chemistry from Claude Bernard University in Lyon, France. In 2007, she obtained her Ph.D. in Materials Science and Engineering from Institut Polytechnique de Grenoble. Subsequently, she was a postdoctoral research scholar at the French National Centre for Scientific Research (CNRS) and worked on semiconductors materials growth, in particular the synthesis of silicon carbide single crystals for LED applications.

Lina Daouk-Öyry



Title: Closing the gender gap: Personal Branding for upward and onward mobility

Dr Lina Daouk-Öyry is a Tenured Associate Professor of Work & Organizational Psychology at OSB at American University of Beirut specialising in employee assessment, development, and individual differences. Lina's research lies at the intersection of people, technology, and organizations. Lina's research has appeared in several top tier journals across disciplines e.g. Journal of Personality and Social Psychology, British

Journal of Management, and Annals of Emergency Medicine. In 2020, Lina was awarded the "Distinguished Scholar Award" from the Arab Fund for Social and Economic Development.

When you consider field of study, don't only think about which specialization will give you better job opportunities; also consider which career fits your personality and your personal values the most as you are more likely to succeed in a field that fits the whole of you!

Nimisha Rajawat



Title: Obstacle is the way

Nimisha was born and grew up in a small town of India. Her father was a farmer. She brought up in a very traditional Indian family. She got a Masters in museology and later a post graduate degree in Early Childhood Education from Canada. But these degrees and successful career could not divert her from pursuing the true purpose and calling of her life-Yoga. Nimisha has been a Certified Registered yoga and mindful teacher for the last 11yrs. Her purpose and goal in life to bring the powerful practice of yoga to benefit people's lives. 5 years ago she self-started Garage Yoga for the People in her garage at KAUST. From past 11 years Nimisha is teaching yoga as a holistic approach to nurture our body and mind. Using yoga and mindfulness to build resilience in challenging times. She is the mother of two gorgeous young children. Nimisha loves to cook for her friends and family, is a passionate weight lifter and Thai boxer. She believes movement is the way to live life to its fullest—helping us to thrive in both physical health and mental well-being.

Sara Skrabalak



Title: Chemoselectivity in Nanomaterial Synthesis

Sara Skrabalak received her B.A. in chemistry from Washington University in St. Louis in 2002 where she conducted research with Professor William Buhro. She then moved to the University of Illinois at Urbana-Champaign, completing her Ph.D. in chemistry in fall of 2006 with the tutelage of Professor Kenneth Suslick. After postdoctoral research at the University of Washington – Seattle with Professors Younan Xia and Xingde Li, she began her independent career in the Chemistry Department at Indiana University – Bloomington in 2008, where she was named the James H. Rudy Professor in 2015. She is a recipient of many accolades; most recently being named a fellow of the American Association for the Advancement of Science in 2020. Professor Skrabalak is Editor-in-Chief for both *Chemistry of Materials* and *ACS Materials Letters*. Her research group focuses on nanomaterial design and synthesis for applications in catalysis, solar energy use, secured electronics, chemical sensing, and more (<https://skrablabsitehost.iu.edu/>).

Over the years, I have received a lot of advice – the most beneficial thus far have been 1) say yes, intentionally, 2) cultivate and work as a team, and 3) use your “other skills” to advance your career forward.

#BE_WISE

Be Wise!
Be a Woman in Science and Engineering

