UC San Diego UC San Diego News Center

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Shirley Meng Named Inaugural Holder of UC San Diego Zable Endowed Chair in Energy Technologies

The \$1 million endowed faculty chair was established by a bequest from the late Cubic founder Walter J. Zable and his wife, Betty

Shirley Meng, professor of nanoengineering at the University of California San Diego, is focused on developing the next generation of high performance batteries that will power electric cars and a green energy grid for a more sustainable future. As director of the <u>UC</u> <u>San Diego Sustainable Power and Energy Center</u>, Meng is leading efforts to advance solutions to some of the key technical challenges associated with energy generation, storage and power management. In support of her research, teaching and service activities, Meng has been appointed the inaugural holder of the Zable Endowed Chair in Energy Technologies in the <u>UC San Diego Jacobs</u> <u>School of Engineering</u>.

The \$1 million endowed faculty chair was established in 2013 by a bequest from the late Cubic Corporation founder Walter J. Zable and his wife, Betty C. Zable. The chair provides a dedicated source of funds, in perpetuity, for the



Shirley Meng

chair holder's scholarly activities as well as support for faculty salaries and graduate fellowships.

"We are extremely grateful to the Zables for their gift and their unwavering support for the pursuit of knowledge for the good of society," said Albert P. Pisano, dean of the Jacobs School of Engineering. "Walter Zable provided crucial support and leadership for many years that helped the Jacobs School to grow and thrive. This endowed chair enables us to support exceptional faculty, like Shirley Meng, who are solving some of the most important energy challenges necessary for building robust, scalable carbon-neutral energy systems."

Renewable energy sources like solar panels and wind turbines are important for a low-carbon future, but they do not work in isolation. The energy they produce must be stored, managed, converted and accessed when it's needed most. To help usher in an era of better and less expensive batteries, Meng is advancing the fundamental understanding of battery materials at the atomic level and at interfaces —where one battery component meets another.

Meng's research team at the <u>Laboratory for Energy Storage and Conversion</u> in the nanoengineering department uses advanced imaging and computational techniques to explore novel energy storage materials and their electrochemistry, as well as the mechanisms underlying these materials' functionalities for lithium-ion batteries, flow batteries, aqueous batteries and solid-state batteries, to name a few.

"I am honored to be the inaugural holder of the Zable Endowed Chair in Energy Technologies," said Meng. "This is truly an exciting time in the field of energy research. We are bringing together multidisciplinary teams to solve the technical challenges that renewable energy technologies face, but at the same time we are tackling the economic, social and political challenges of building a robust ecosystem for electric vehicles and carbon-neutral microgrids. Private support helps us advance solutions for a more sustainable future."

Meng received her doctorate in advanced materials for micro and nano systems from the Singapore-MIT Alliance in 2005, after which she worked as a postdoctoral research fellow and became a research scientist at MIT. She joined the UC San Diego faculty in 2009 and in 2015, became the founding director of the Sustainable Power and Energy Center, one of 10 agile research centers at the Jacobs School of Engineering. Meng has authored or co-authored more than 140 peer-reviewed journal articles, one book chapter and four patents. She has received a number of awards, including the NSF CAREER Award, the UC San Diego Chancellor's Interdisciplinary Collaboratories Award and the Charles W. Tobias Award from the Electrochemical Society.

Walter J. Zable founded San Diego-based Cubic Corporation in 1951 and served, until his death in 2012, as chief executive, chairman and president of the public corporation that provides military defense equipment and automated fare collection equipment. The Zables were longtime supporters of UC San Diego, giving to a variety of campus areas and initiatives since 1966. In addition to the Zable Endowed Chair in Energy Technologies, their bequest was used to establish a chair at the Rady School of Management, support undergraduate scholarships and graduate fellowships, and provide funding for the Shiley Eye Institute.

UC San Diego is currently in a \$2 billion fundraising campaign to transform the student experience, the campus and ultimately the way that humanity approaches problems and develops solutions. For more information, visit the <u>Campaign for UC San Diego website</u>. To learn more about supporting the Jacobs School of Engineering, go <u>here</u>.

MEDIA CONTACT

Kristin Schafgans, 858-822-3353, <u>kschafgans@ucsd.edu</u> Liezel Labios, 858-246-1124, <u>llabios@ucsd.edu</u>

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