



# BundeSciencia Science Café – Women in Science – The new *Status Quo* of the Digital Era



**SAVE THE DATE!**

26.03.2018 at 19.00 h

**WHERE?**

Cervantes Institute Berlin (Rosenstr. 18-19, 10178)



## ‘Catalysis at the nanoscale’

**Prof. Dr. Beatriz Roldán Cuenya**

Fritz Haber Institute of the Max Planck Society Berlin



Currently, we develop customized materials with optimized performance for a variety of applications, including those relevant in the fields of energy conversion and environmental science (e.g. the transformation of CO<sub>2</sub> to valuable chemicals and fuels). These materials aim to improve our life-quality and diminish our carbon footprint. This talk focusses on the understanding of novel physico-chemical properties of nanostructured materials at gas/liquid/solid interfaces. The optimal design of nanoparticles, nanostructures, surface-modified thin films and multilayers are the basis for the understanding of the dynamic behaviour of surfaces and interfaces in different chemical environments. Using state-of-the-art synchrotron-based microscopy and spectroscopy characterization methods, we obtain a deeper understanding of the materials, being able to tune catalytic performance at the atomic level to achieve our initial goals.



## ‘Life is a journey, not a destination’

**Prof. Dr. Anne-Frances Miller**

University of Kentucky

This generation faces challenges that span the whole world and all people. It is time to change *ourselves* and the way we live on our precious planet. I devote my career to teaching science and elucidating biological means of using water and energy more economically. Ancient lineages of bacteria reveal mechanisms of using electron transfer energy in more versatile and efficient ways. My research aims to permit implementation of such strategies in man-made materials and devices. We also work with engineers to create catalytic artificial membranes that can remove agricultural toxins as water passes through. Finally, I work with teachers, after-school clubs, and even churches to give children and parents confidence that science is real, and the problems are real, but they can be addressed with science as a part of the *solution*. These activities are united in my public service goals as President-Elect of the Biological Division of the American Chemical Society.



## ‘Understanding the “hows” and “whys” of mRNA degradation’

**Prof. Sutapa Chakrabarti**

Freie Universität Berlin



Our lab focuses on studying mechanisms of mRNA degradation in eukaryotes. Post-transcriptional regulation is an important step in determining the gene expression profile of a cell and a critical step therein is regulating the level as well as the quality of mRNA transcripts. We employ structural and biochemical tools to decipher how RNA binding proteins recognise their target RNA, engage the mRNA degradation machinery of the cell and also how they are regulated in the context of specific pathways. The talk will focus on the function and regulation of a specific RNA binding protein which is involved in multiple decay pathways.

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