

Calcineurin substrates involved in stress survival and virulence of *Cryptococcus neoformans*

ABOUT THE LECTURE

Calcineurin, a Ca^{2+} /calmodulin-dependent protein serine/threonine phosphatase, is the target of the immunosuppressive and antifungal drugs, FK506 and cyclosporine A. Dr. Cardenas's lab has investigated the role of calcineurin in the growth and virulence of the opportunistic human pathogenic fungus, *Cryptococcus neoformans*. More than one million new cases of *Cryptococcal* infections are reported annually, resulting in >620,000 deaths. To identify novel calcineurin substrates in *Cryptococcus*, Dr. Cardenas' lab has employed a comprehensive approach comparing the phosphopeptide profiles of fungal cells in which calcineurin is active with those where the phosphatase has been inactivated. In this talk, she will discuss the results from this innovative approach, which have revealed calcineurin substrates that may provide an improved understanding of fungal pathogenesis.

- Speaker:** **Prof Maria Cardenas-Corona**
*Research Professor, Department of Molecular Genetics and Microbiology,
Duke University Medical Center*
- Host:** **Prof Shirish Shenolikar**
Senior Associate Dean of Research, Duke-NUS Graduate Medical School
- Date:** **Wednesday , 10 Jul 2013**
- Time:** **4.00 PM—5.00 PM**
(Light refreshments will be served at 3.30 PM)
- Venue:** **Duke-NUS Graduate Medical School**
Amphitheatre, Level 2
- Contact Person:** **Ms Shanti Rajaram, Office of Research**
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ABOUT THE SPEAKER

Dr. Cardenas received her Ph.D. in Biochemistry from University of North Texas. She did her postdoctoral studies as the Norman and Rosita Winston Fellow in Biomedical Research with Dr. Titia de Lange at Rockefeller University. She began her career at Duke University Medical Center as Research Associate in 1993 and is at present, a Research Professor in Department of Molecular Genetics and Microbiology. In 2011, she was elected a Fellow of the American Association for the Advancement of Science. Her team is currently studying the evolutionarily conserved TOR signalling cascade, which senses nutrients and regulates gene expression, translation, and ribosome biogenesis in yeasts and humans.

