



## UCSD GENETICS AND GENOMICS SEMINAR

Sponsored by the UCSD Institute for Genomic Medicine, the Departments of Medicine, Neuroscience, Ophthalmology, Pathology, Pediatrics, Psychiatry and School of Medicine, UCSD Stem Cell Program, Charles River

Please visit [genetics.ucsd.edu](http://genetics.ucsd.edu) for upcoming lectures

**Leichtag 107 Noon**

**Apr. 5th (Thurs)**

"Inducing pluripotency by RNA and small molecules"

**Tariq Rana**

*Sanford-Burnham Medical Research Institute*

**Hosted by Benjamin Yu**

**Research Summary:**

The Rana lab studies RNA-mediated mechanisms of disease and cellular processes. Much of his past work has focused on RNA-mediated silencing and host-pathogen interactions in HIV. This Thursday, Dr. Rana will discuss the regulation of cellular processes by RNA during creation of induced pluripotent stem cells (iPSC) and in various disease states. Current medical and disease models under investigation in the laboratory and with collaborators include regenerative medicine, AIDS, neurodegenerative disease amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), and cancer.

**Recent Publications:**

Nathans R., Chu C.Y., Serguina A.K., Lu C.C., Cao H. and Rana T.M. (2009) Cellular microRNA and P bodies modulate host-HIV-1 interactions. *Mol Cell*, 34, 696.

Nathans, R., Cao, H., Sharova, N., Ali, A., Sharkey, M., Stranska, R., Stevenson, M. and Rana, T.M. (2008) Small-molecule inhibition of HIV-1 Vif. *Nat Biotechnol*, 26, 1187.

Robb G.B. and Rana, T. M. (2007) RNA Helicase A Interacts with RISC in Human Cells and Functions in RISC Loading. Mol Cell, 26, 523-537

Baigude H, McCarroll J, Yang C.S., Swain P.M. and Rana T. M. (2007) Design and creation of new nanomaterials for therapeutic RNAi. ACS Chem Biol, 2, 237-41.

Rana, T. M. (2007) Illuminating the silence: understanding the structure and function of small RNAs. Nat Rev Mol Cell Biol, 8, 23-36.

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**organization committee:** faculty (J. Gleeson, B. Hamilton, B. Yu, K. Zhang, G. Sen),

students (A. Conway, J. Nelson, M. Lam, C. Rivera, E. Heinrichsen)

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