



The NewsKeeping Gene

A Quarterly Newsletter highlighting activities at the Bangalore Life Science Cluster

Research Highlights

Reconstructing the cell surface in a test tube

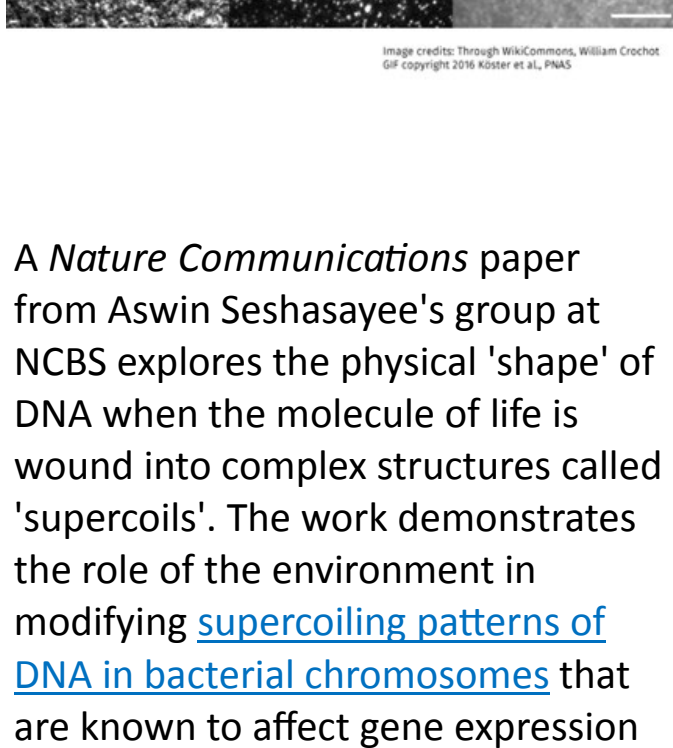
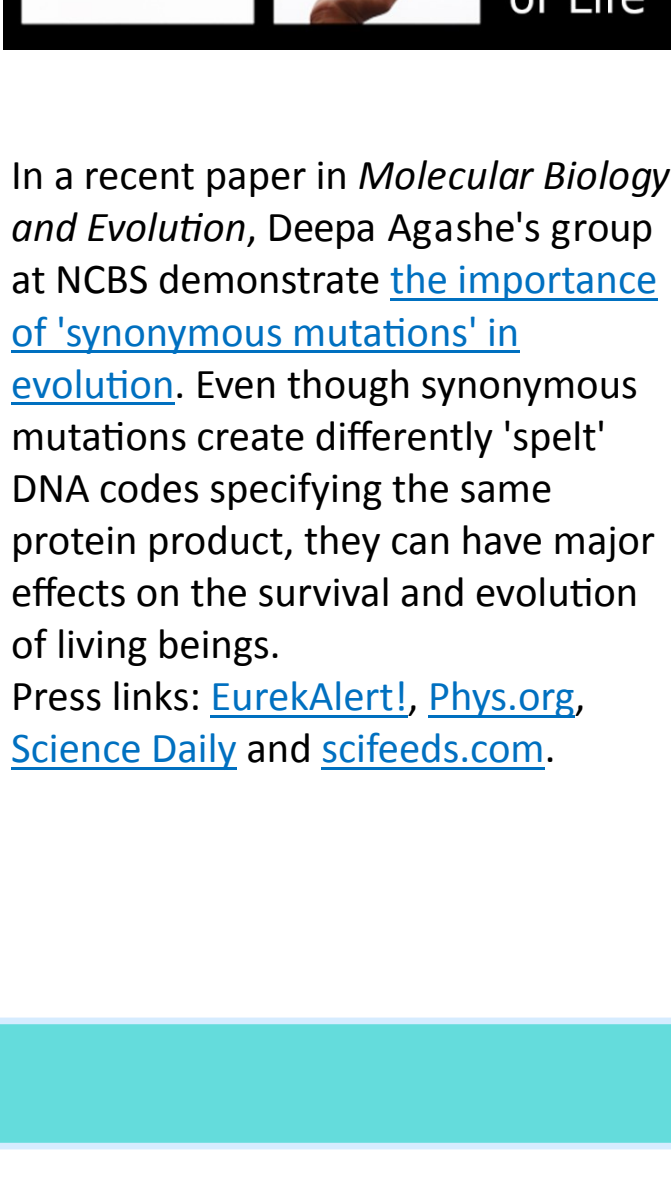


Image credits: Through Microscopies, William Crochier, and Genengnews.com

A *Nature Communications* paper from Aswin Seshasayee's group at NCBS explores the physical 'shape' of DNA when the molecule of life is wound into complex structures called 'supercoils'. The work demonstrates the role of the environment in modifying [supercoiling patterns of DNA in bacterial chromosomes](#) that are known to affect gene expression patterns. Press links: [EurekAlert!](#), [Science Daily](#).

Satyajit Mayor's and Madan Rao's groups at NCBS demonstrate the power of combining theoretical and experimental approaches in science. A paper in *PNAS* based on their collaborative research describes [the reconstruction of a cell surface model from constituent parts](#), namely, lipids and proteins. Press links: [EurekAlert!](#), [The Bangalore Mirror](#), [Science Daily](#) and [genengnews.com](#).

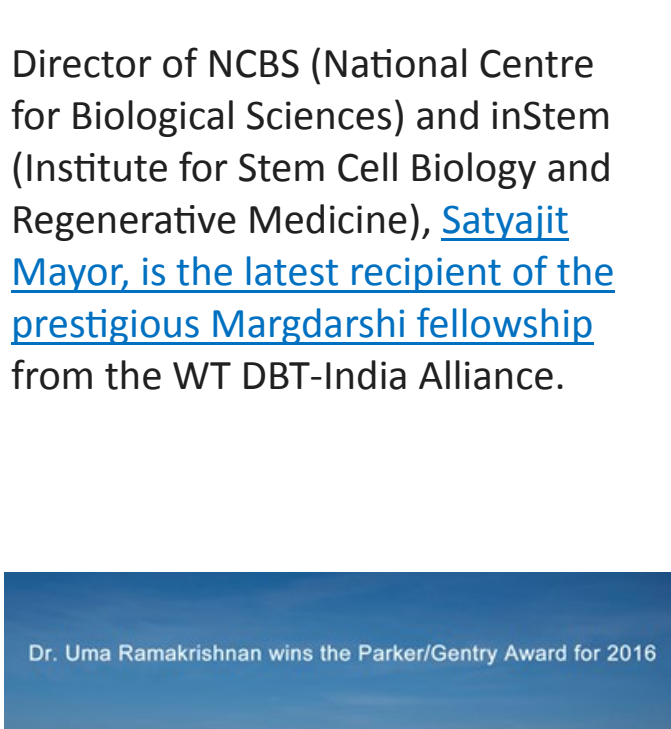


Spelling mutations & evolutionary advantages

In a recent paper in *Molecular Biology and Evolution*, Deepa Agashe's group at NCBS demonstrate [the importance of 'synonymous mutations' in evolution](#). Even though synonymous mutations create differently 'spelt' DNA codes specifying the same protein product, they can have major effects on the survival and evolution of living beings. Press links: [EurekAlert!](#), [Phys.org](#), [Science Daily](#) and [scifeeds.com](#).

In the Spotlight

In conversation with Raghu Padinjat: Raghu Padinjat is a Doctor-turned-Researcher and Wellcome Trust-DBT India Alliance Senior Research Fellow at NCBS, whose group studies information transfer mediated by lipid molecules. Read about his career path in this interview.



Satyajit Mayor awarded the prestigious Margdarshi fellowship

Director of NCBS (National Centre for Biological Sciences) and inStem (Institute for Stem Cell Biology and Regenerative Medicine), [Satyajit Mayor, is the latest recipient of the prestigious Margdarshi fellowship](#) from the WT DBT-India Alliance.

NCBS congratulates molecular ecologist Uma Ramakrishnan on [winning the Parker/Gentry Award for 2016](#) for her work on Tiger genetics and conservation. She is the first Indian to receive this Award. Press Coverage: [The Hindu](#), [Mongabay.com](#), [The News Minute](#).



NCBS welcomes new faculty member - **Dimple Notani**

NCBS welcomes new faculty member - Dimple Notani: NCBS new faculty member, Dimple Notani is a recipient of a Wellcome Trust-DBT India Alliance Intermediate Research Fellowship, and is an expert in the field of functional genomics and epigenetics.

NCBS post-doctoral researcher **Varad Giri** has been presented with the [Sanctuary Asia Wildlife Service Award](#) for his work on identifying, classifying, surveying and mapping Indian reptiles and amphibians. He currently works at the Collections facility at NCBS.

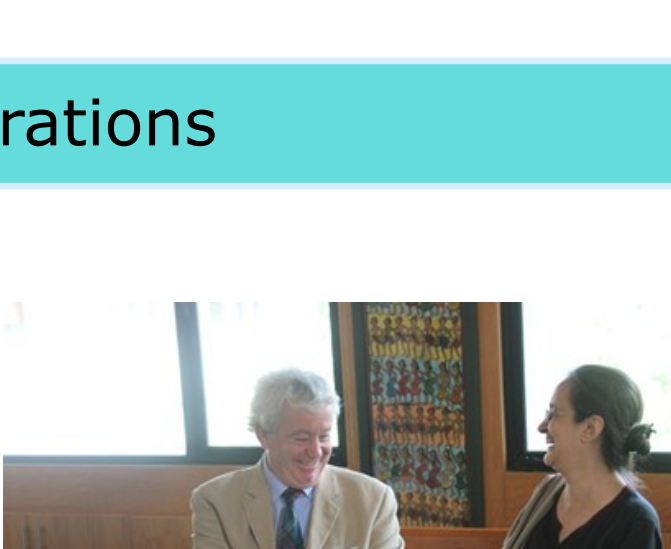


Funding News

Announcing the launch of a new initiative
'Accelerating the application of Stem Cell Technology in Human Disease' (ASHD)
NCBS, inStem, NIMHANS, CMC Vellore come together to work on an innovative program to use stem cells in research, diagnostics and therapeutics. ASHD is being jointly supported by Department of Biotechnology (DBT), Government of India and the Pratiksha Trust, a charitable trust setup by Kris Gopalakrishnan, co-founder of Infosys.

The Bangalore Life Science Cluster campus announced the [launch of the ASHD program](#), a major new collaborative initiative centered around the use of stem cell technology in research, diagnostics and therapeutics. Press Coverage: [Times of India](#), [The Hindu](#) and [IndiaBioscience](#).

The ASHD program is supported by the Department of Biotechnology and the Pratiksha Trust, a charitable Trust set up by Kris Gopalakrishnan, co-founder of Infosys, and his family. Press coverage: [Economic Times](#), [ET Health World](#).

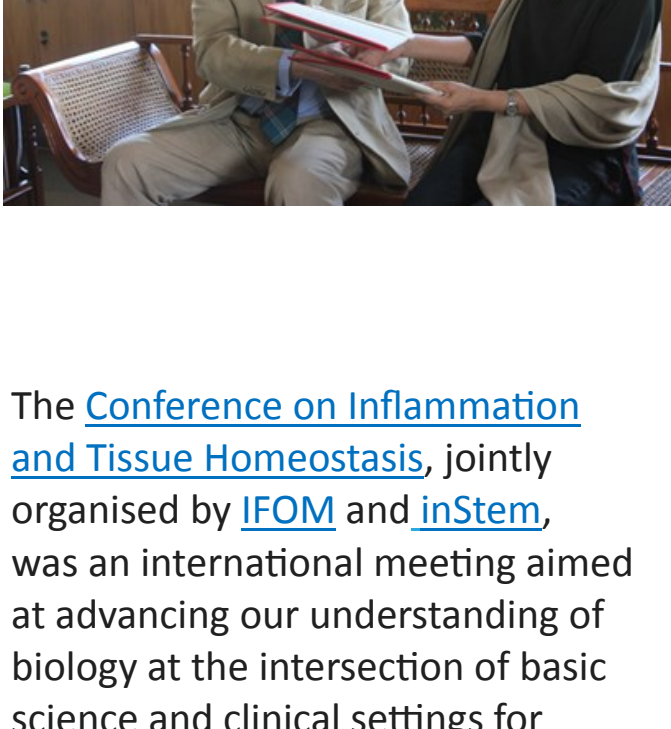


EMBO-DBT Workshop
An event celebrating 30 years of DBT and announcing the new EMBO-DBT collaboration for EMBO funding schemes

India-EMBO partnership symposium: A unique event celebrating 30 years of the Department of Biotechnology and announcing the [launch of a new EMBO-DBT partnership](#) for funding Indian researchers was hosted by the Bangalore Life Science Cluster campus.

International Collaborations

NCBS, inStem and University of Edinburgh renew MoU: A Memorandum of Understanding has been renewed between the Bangalore Life Science Cluster and The University of Edinburgh to reinforce ongoing collaborations and develop new areas of mutual interest.

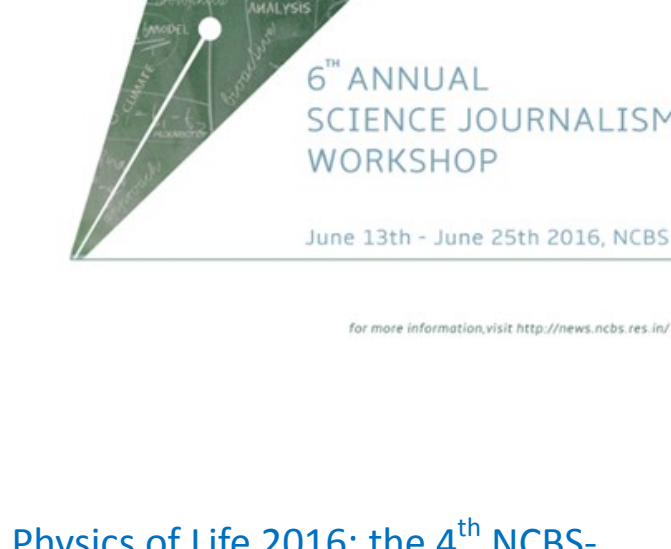


IFOM - inStem Conference on Inflammation and Tissue Homeostasis
February 3-5, 2016
Institute for Stem Cell Biology and Regenerative Medicine
National Centre for Biological Sciences, Bangalore, India
Organizers: Dr. Carlo Jaenisch, inStem, Bangalore; Dr. Giorgio Scita, IFOM, Italy

The [Conference on Inflammation and Tissue Homeostasis](#), jointly organised by [IFOM](#) and [inStem](#), was an international meeting aimed at advancing our understanding of biology at the intersection of basic science and clinical settings for diseases.

Cell Press-TNQ India Distinguished Lecture Series

Karl Deisseroth visits NCBS: Deisseroth, who was the featured speaker for the Cell Press-TNQ India Distinguished Lectureship Series 2016, gave a fascinating talk at NCBS on the development of molecular and optical tools as drivers of new discoveries in neuroscience.



Courses and Workshops

The [6th Annual Science Journalism workshop](#) to be held at NCBS aims to impart the basic journalism skills necessary for communicating science to the lay person via the written word.

Physics of Life 2016: the 4th NCBS-Simons Annual Monsoon School aims to introduce undergraduate students from mathematics, physical sciences and engineering backgrounds to exciting problems in biology for interdisciplinary research.

The 4th NCBS-Simons Annual Monsoon School
15th to 24th June 2016
The deadline for submitting completed applications is midnight of 15th April 2016.

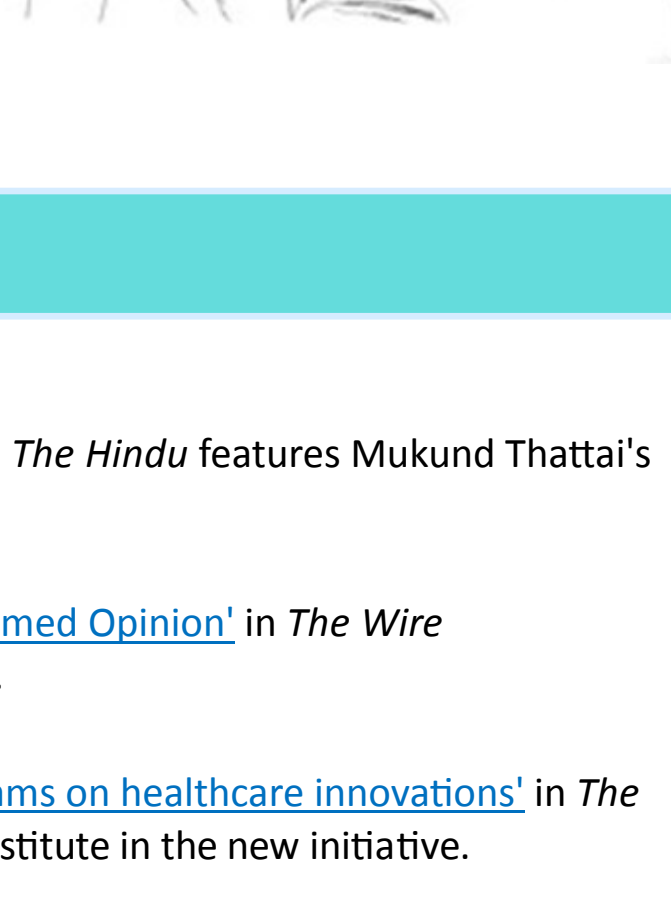
Annual Talks 2016
Coming of Age: Transitions in Biological Systems

The NCBS Annual Talks: The National Centre for Biological Sciences held its much-awaited yearly event, the Annual Talks from 11th to 13th January this year. For more about the talks, view this [article](#) and [photo-story](#).

The Annual Review of Research at inStem: The Institute for Stem Cell Biology and Regenerative Medicine (inStem) held its yearly Annual Reviews from 7th to 9th March this year. For more about the talks, view this [article](#) and [photo-story](#).

Remembering Obaid Siddiqi

25 years of NCBS: The campus recently hosted an event to remember Obaid Siddiqi, to whose vision and perseverance NCBS owes its existence. [Obaid Siddiqi - Sharing stories about the person, the scientist and the institution builder.](#)



Media Spotlights

- '[Engineering life, one gene at a time](#)' in *The Hindu* features Mukund Thattai's voice from NCBS.
- '[Editing Embryos – Six Steps to an Informed Opinion](#)' in *The Wire* features quotes from inStem scientists.
- '[Infosys co-founders to promote programs on healthcare innovations](#)' in *The Hindu* mentions CCAMP as a partner institute in the new initiative.
- '[What the increased funds for the Indian scientific community means for its future](#)' in the *Economic Times* features Prof. K VijayRaghavan's and Prof. Satyajit Mayor's voices.
- [What do antibiotic resistance and a broken marriage have in common?](#) NCBS, Jagriti Theatre and Theatrescience team up to present the play 'The Vaidya's Oath' - *Scroll.in*

The Bangalore Life Science Cluster consists of the National Centre for Biological Sciences (NCBS), the Institute for Stem Cell Biology and Regenerative Medicine (inStem) and the Centre for Cellular and Molecular Platforms (C-CAMP). Each of these institutions has its own scientific mandate, though all three share a common campus space that promotes synergistic associations between them.

For any comments, suggestions or queries, please write to Savita Ayyar: comms@ncbs.res.in