



## Momentum

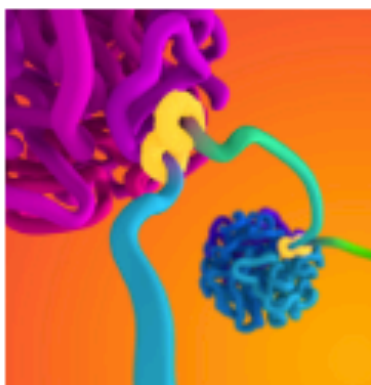
## Visual elements help tell story of first successful genome surgery

📅 October 20, 2015 📍 Center for Genome Architecture, Dr. Erez Aiden, Glenna Vickers, Houston, human genome, molecular and human genetics, Research, Technology

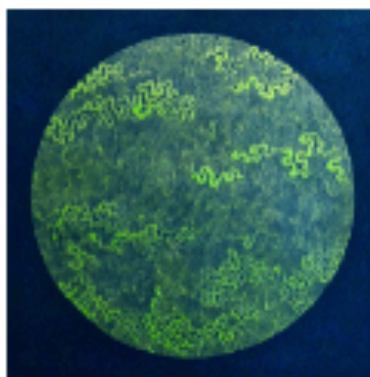
A recent study led by researchers in the Center for Genome Architecture at Baylor College of Medicine reported the first successful genome surgery, and a new look into how the genome folds which may one day lead to new methods of understanding genetic diseases.

The team developed video and still images to help tell the story, which published in the journal *Proceedings of the National Academy of Sciences*.

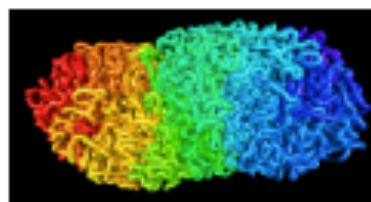
[Read the press release announcing the work](#) and see images below.



Simulation of DNA organized into two globules by extrusion complexes. Image by: Najeeb Marc Tarazi, Adrian Sanborn, Erez Lieberman Aiden.



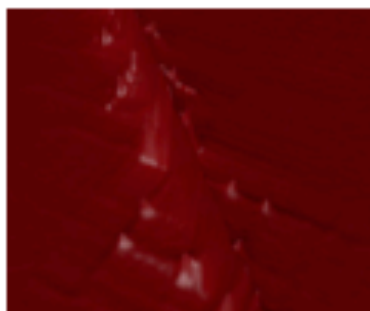
An artist's interpretation of chromatin folded up inside the nucleus. Image by: Mary Ellen Scherl.



Physics simulation of a small interval of DNA collapsed into a tension globule. Image by: Adrian Sanborn, Erez Lieberman Aiden.



A DNA sequence from the human genome is printed out and folded up into an origami curve. Credit: Designed and folded by Jason Ku. Photo by Erik Demaine.



A Hi-C contact map rendered as a three-dimensional surface. Strong proximity between nearby genomic loci creates a 'wall' bisecting the landscape. Peaks in the contact map correspond to loops in the genome. Image by: Ido Machol, Erez Lieberman Aiden. Rendered by Ido Machol.



An artwork inspired by the problem of genome folding, by Broad Institute Artist-in-Residence Guhapriya Ranganathan. This originally appeared in her exhibition, *Unfolding*.