

Best of Last Week – Milky Way light energy, building DNA from scratch and cognitive crossing training to sharpen brain

July 31 2017, by Bob Yirka

It was another good week for physics as James Burrige with the University of Portsmouth published a paper describing how [the physics of bubbles could explain language patterns](#)—specifically, the human tendency to copy those around them, resulting in regional dialects. Also, a team with members from the University of Central Lancashire, the Max Planck Institute and the Astronomical Institute of the Romanian Academy described how they [mapped out the light energy contained within the Milky Way](#).

Pair of nearby galaxies with possible intergalactic transfer: This image shows M81 (bottom right) and M82 (upper left), a pair of nearby galaxies where 'intergalactic transfer' may be happening. Gas ejected by supernova explosions in M82 can travel through space and eventually contribute to the growth of M81. Credit: Fred Herrmann, 2014, cs.astronomy.com/asy/m/galaxies/489483.aspx

It was also a big week for space research as a team at Northwestern University discovered that [the Milky Way's origins are not what they seem](#)—they found that up to half all of the galaxy's matter came from somewhere else. And a pair of researchers, Ralph Milliken and Shuai Li with Brown University reported that they spied [new evidence of water in the moon's interior](#) by studying moon rocks brought back by the Apollo missions, in a new way.

In biology news, a team with members from the Salk Institute and the University of California announced that [they had solved a longstanding biological mystery of DNA organization](#), and in the process, created for the first time an unprecedented view of the 3-D structure of the human chromatin. Also, an international team reported that they built [DNA from scratch to alter life's blueprint](#).

In other news, a combined team of researchers from Rice University and the University of Houston announced that they had produced [a robust catalyst to split water into hydrogen and oxygen](#). The electrolytic film they produced was a three-layer structure of nickel, graphene and a compound of iron, manganese and phosphorus. Also, a team at the Albert Einstein College of Medicine claimed they had found [the brain cells that control aging](#)—stem cells in the brain's hypothalamus. And a team at Purdue University described [a new AI technique that creates 3-D shapes from 2-D images](#)—based on machine learning and deep learning

techniques.

And finally, if you have been wondering if there might be a way to sharpen your brain, a team at the University of Illinois at Urbana-Champaign has found that [cognitive cross-training enhances learning](#)—exercising the brain in multiple ways, they found, can help you learn new things easier.

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