

BEST FROM SCIENCE JOURNALS: DECODING NORTHERN LIGHTS

Relevant for: Science & Technology | Topic: Science and Technology- developments and their applications and effects in everyday life

In this Friday, March 9, 2012 photo, an aurora borealis swirls in the sky over the Yukon River village of Ruby, Alaska | Photo Credit: [AP](#)

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[Published in Nature Communications](#)

Aurora borealis, also known as northern lights, is phenomenon that has been studied for decades. Now, a new paper has decoded its origin. The researchers note that interaction between electrons and Alfvén waves (a type of electromagnetic wave) plays an important role.

[Published in PNAS](#)

Decoding a meteorite that fell near Jaipur in 2017

Every year thousands of meteorites land on the Earth. By studying over 10,000 different meteorites that represent the past 500 million years, researchers have now described the major collision events Earth has witnessed. "Future impact from even a small asteroid for example in the sea close to a populated area could lead to disastrous outcomes. This study provides an important understanding that we can use to prevent this from happening; for example, by attempting to influence the trajectory of rapidly approaching celestial bodies," explains corresponding author Birger Schmitz in a release.

[Published in Cell Reports](#)

Planning to learn a new skill? Take short breaks from practice, says a new study. The team studied the brain waves of right-handed volunteers when they learnt to type with their left hand. They saw that memory was strengthened after a rest phase. "Our results support the idea that wakeful rest plays just as important a role as practice in learning a new skill. It appears to be the period when our brains compress and consolidate memories of what we just practiced," said senior author Leonardo G. Cohen in a release.

[Published in PNAS](#)

Turbulent winds and gusts are known to influence the flight of birds and a new study has pointed out that golden eagles (*Aquila chrysaetos*) flying in the wild, maybe using this turbulence to their advantage. By studying wind speed data and eagle's accelerations the team notes that there may be a linear relationship between the two. Understanding this in detail can help us design aircraft that can fly in turbulent environments.

[Published in Science](#)

Two new studies in mice have found out the origin of immune cells that surround the brain and spinal cord. The immune cells are "supplied not from the blood, but by the adjacent skull and

vertebral bone marrow,” notes the study. “Understanding where these cells come from and how they behave is a critical part of understanding the basic mechanisms of neuro-immune interactions, so we can design new therapeutic approaches for neurological conditions associated with inflammation,” said one of the authors Jonathan Kipnis in a release.

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It is well known that mammals including humans show a high capacity for brain and spinal cord regeneration but only during young ages.

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