# Editorial

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The functioning of the brain and more broadly the entire field of neuroscience are globally regarded as frontier areas for investigation. High school students learn the basic facts about sensory and motor nerves and the various reflexes of the body. The term 'knee-jerk' has even entered the English language to describe a quick reaction unencumbered by thought. In this issue, we bring our readers the story of how this picture was built up, which is inseparable from the story of one of the pioneers of the field, extending well beyond his science.

One of the most exciting topics in astronomy today is the study of exoplanets – worlds beyond our solar system, orbiting stars other than the Sun. From the first firm discovery in 1995, the field has exploded, thanks to two very ingenious techniques of detection. These developments make up the first part of the story. What we have learnt about these planets is kept for a forthcoming issue. In particular, the intriguing question of earth-like planets which could sustain life is left open for now.

The November 2015 issue of *Resonance* was devoted to magnetic resonance. In this technique the magnetic moments of nuclei (NMR) and unpaired electrons (EPR) precess in a magnetic field, driven and monitored by mircrowave and electronic techniques. The MRI machine is a spin off (pun intended) of NMR studies which originated from largely physics motives. We return to the theme of imaging, but now with EPR. This is not as well known as its prosperous MRI cousin, but has unique capabilities of its own in biomedical science.

Finally, we have two pieces aimed at teachers of mathematics. We carry a full article which elaborates on an intriguing and counter-intuitive result in coin tossing, viewed in many ways. This result inspired a recent and surprising discovery regarding prime numbers. The classroom piece shows how to challenge students to attack the Pythagoras theorem using the formula for area of a triangle in terms of the sides as a tool. This reverses the more standard approach in which the area formula is a consequence of the Pythagoras theorem.