The Gander

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Pat Kelly | 21 Jul 2016 | 0 Comment(s)

The Medical Independent blog takes a look at the more unconventional niches in science and research

A gain in chronic pain treatment

A team of US researchers is working on a new approach to the treatment

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€23.5m on record
of chronic pain and hope that their findings may help to alleviate opioid abuse.

The team at the University of Texas used wireless electrical stimulation of the ventral tegmental area of the brain, utilising a wirelessly-controlled chip, to activate neurons and maximise the natural analgesic abilities of the brain.

As a result, the researchers could stimulate the brain to release dopamine and alleviate long-term, chronic pain.

It may not be too long before the new system actually comes to market, according to Dr Yuan Bo Peng, author and Professor of Psychology at the University of Texas.

"Many patients could benefit and live a better life owing to our invention," Dr Peng told the Huffington Post. "This line of research is important because nearly 50 per cent of patients who seek medical help do so because of pain."

Co-author Dr Jung Chih Chiao added: "If you imagine that the nerves in our body are circuitry wires, pain is due to the disconnection or malfunction in the wiring. Our method to ease the pain is to enhance proper connections in the circuitry by sending electrical pulses.

"There are several other commercial companies making FDA-approved stimulation devices for neurological and psychiatric disorders, such as Parkinson's disease, depression and dystonia, so many safety issues have already been investigated and addressed. We hope to see this move forward rapidly to make our technology available for patients to alleviate the suffering of millions."

The team hopes that the initiative could also eventually ease the epidemic of abuse of therapies such as hydrocodone, methadone and oxycodone.

The paper was published in the journal Experimental Brain Research.

**Education and brain tumours linked**

A new study has suggested that people who are better paid, have more prestigious jobs and are highly educated, have an increased incidence of three different types of brain tumour.

However, the authors cautioned that their findings may not indicate a direct link, but rather that people who are highly educated are more vigilant for symptoms of acoustic neuroma, glioma and meningioma than those who are less well educated.

People with a high level of education and professional standing are also more likely to have their data included in national cancer registries, the authors suggested.

The team, based in University College London's Institute of Child Health,
UK, looked at data from over 4.3 million residents in Sweden and also used that country's National Cancer Register to collate data between 1993 and 2010.

They found that men with three or more years of college education were 19 per cent more likely to be diagnosed with glioma, in comparison to men with lower levels of education.

In men, professional/managerial jobs were linked with a 20 per cent increased risk of glioma and 50 per cent higher incidence of acoustic neuroma.

In women, they found that those with a similar level of education were 23 per cent more likely to be diagnosed with glioma and 16 per cent more likely to have meningioma than their less-well-educated counterparts.

Women with professional or managerial jobs were associated with a 26 per cent increased incidence of glioma and a 14 per cent higher risk of meningioma, compared to females with lower-level jobs.

Commenting on the results, Ms Elizabeth Ward, Vice-President for Intramural Research at the American Cancer Society, said: "All of this is really a clue that will help us look deeper and understand the reasons for these differences [in tumour incidence]."

"[But] there’s no cause for people to be concerned about their own individual risk, based on this study," she added.

"If you were more educated, you might go to the Internet and say, ‘hmm, I’ve got hearing loss in my right ear, I need to go get it checked out,’ but someone with less education might pass it off."

The results were reported in the *Journal of Epidemiology and Community Health*.

**Women in the driving seat**

UK researchers have discovered that when they take their car to a garage for repairs, men are likely to be charged an average of 13 per cent more than women for the same mechanical work.

The researchers got participants of both sexes to take a Ford Fiesta for a service, new alternator and new brake pads. They found that on average, men were charged the equivalent of €125 for the service, while women were charged approximately €111. Furthermore, the difference was more pronounced when it came to brunettes and redheads, compared to blonde women.

Brunettes and redheads were charged an average of 20 per cent less than blondes for installing the new brake pads.

The disparity became even more apparent when older men were involved — men aged 60 years and older were charged 32 per cent more to
The research was commissioned by insurance company Sheila's Wheels and spokesperson Ms Elspeth Hackett said: “Taking your car to a garage can be a confusing and costly experience, especially for those with limited motoring knowledge, and the imbalance of knowledge can lead to drivers being vulnerable to rip-offs and sharp practice, whatever your gender.

“Even if you have no knowledge of car maintenance, it can pay to arm yourself with as much knowledge as you can about your car when it goes wrong.

“It’s best to search the Internet for details about the problem and find out average costs, and then shop around at local garages to see what they would charge,” she added. “Plus, it’s always worth checking that the price you are being given is a quote or an estimate and also check whether it includes parts, labour and VAT.”

However, the results — which were issued by the company via press release and reported in a variety of UK media sources — also showed that men received a more formal service than women at a garage, at 49 per cent vs 26 per cent. Approximately 50 per cent of the male participants said they were addressed as ‘sir’ or ‘Mr’, while the others were generally referred to as ‘mate’.

With women, they were more often (16 per cent vs 8 per cent) greeted with informal terms of endearment, including being called ‘love’ (8 per cent) and ‘darling’ (6 per cent).

**Visionary work in disease prevention**

An Indian firm has pioneered a new high-definition TV that not only provides excellent image quality, but also repels mosquitos from homes.

Makers of the IPS Panel ‘Mosquito Away’ TV hope their initiative will help to prevent the spread of infectious disease; the device emits chemical-free sound waves to repel mosquitos.

But there are added applications for the Indian consumer market — the TV also includes ‘Bollywood mode’ for enhanced sound quality and ‘Cricket mode’ for enhanced stadium-like viewing of cricket matches.
Renal cell carcinoma traditionally present with abdominal pain and haematuria however, an incidental diagnosis is becoming more common due to an increased use of radiological imaging. Surgery with ne......