doi:10.1136/practneurol-2018-002132

PUMP UP THE JAM

A probe that can deliver drug on demand and also record local neural activity is an attractive proposition for disorders such as epilepsy. The microfluidic ion pump electrophoretically pumps ions across an ion exchange membrane and delivers the drug but not the solvent. This has the advantage of a negligible increase in local brain pressure. The Anglo-French team demonstrated how to deliver inhibitory neurotransmitters in a rodent model of epilepsy as proof of principle. Once you get beyond the fact that this would need advanced neurosurgery, it is many ways more elegant than traditional non-drug options.

Sci Adv 2018;48:eaau1291. doi: 10.1126/sciadv.aau1291.

AN ASPIRIN A DAY...

Does an aspirin a day keeps dementia at bay, or disability-free survival at 5 years? A study of healthy Americans and Australians 70 years or older without cardiovascular disease, dementia or physical disability randomly assigned participants to 100 mg of aspirin or placebo. The trial was terminated after 4.7 years because of futility. The compound end points of death, dementia or persistent physical disability were not met. Adherence was similar in the two groups, but major haemorrhage was greater in the aspirin group (3.8% vs 2.8%). Aspirin is a wonder drug—but only if you need it. This was further compounded by

a related article in the same volume of the *NEJM* stating that all-cause mortality was greater in the aspirin-treated group—attributed primarily to cancer-related deaths. *N Engl J Med* 2018;379(16):1499–1508. *N Engl J Med* 2018;379(16):1519–1528.

RETURNING THE COMPLIMENT

It is commonly thought that we can tolerate the use of complementary therapy as it ‘*Can’t hurt, could have a placebo response*’. A study of 1 901 815 patients with curable cancers looked at the outcome, and conventional treatment adherence, in people who did and did not also use complementary medicines. I am sure that the rate of complementary medicines use was under-reported (0.01%), but despite this they showed that patients taking alternative therapies were more likely to refuse surgery, chemotherapy and hormonal treatment. There was also a poorer 5-year survival (82.2% vs 86.6%, $p=0.001$) with a greater risk of death (HR 2.08). *JAMA Oncol* 2018;4 (10):1375–1381.

ONE SMALL STEP FOR MAN...

‘The future is already here, it is just not very evenly distributed’, said William Gibson. Two to three years out from motor-complete spinal cord injury (no voluntary movement or sphincter control), people do not recover to independent walking. Which is why the report of four people given intense treadmill training with weight support and simultaneous spinal cord epidural

stimulation is so remarkable. All four achieved independent standing and two achieved walking independent from the treadmill. The effort necessary was huge—with 81 sessions over 15 weeks and 278 sessions over 85 weeks needed. There was one hip fracture during training.

N Engl J Med 2018; 379:1244–1250.

FRAUDIAN SLIP

A recent Editorial in *JAMA* regarding the prevalence of research fraud reminded A Fo Ben of one of my favourite websites—<https://retractionwatch.com/>. This is a compendium of dishonour, deceit and dubious practice. One rainy day, why not use their search function to find withdrawn papers from your field of interest? There is a lot of this about; over the last 5 years, *JAMA* network journals have published 12 notices of retraction about 15 articles (including 6 articles by one prolific author) and 6 notices of expression of concern about 9 articles. I for one would love to hear of a deception in *Practical Neurology*—perhaps a Munchausen ‘Me and My Neurological Illness’?

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