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TOO MUCH OF A GOOD THING?

Is it fair to say that idiopathic intracranial hypertension (IIH) is still idiopathic? Seventy women with IIH, 40 with obesity alone and 60 with polycystic ovarian syndrome had their patterns of serum androgen levels measured (and a subset had cerebrospinal fluid (CSF) measures). Women with IIH showed a distinct signature of androgen excess, with increased serum testosterone and increased CSF testosterone and androstenedione. Human choroid plexus expresses the androgen receptor, alongside the androgen-activating enzyme aldoketoreductase type 1C3. In rat, choroid plexus testosterone significantly enhances the activity of Na^+/K^+ -ATPase, a surrogate of CSF secretion. Could this open the door to targeted IIH therapies?

JCI Insight 2019;4(6).

BOA WAR

The elevator pitch; business jargon for that pithy one liner that sells your research. Now a befuddled A Fo Ben cannot fully remember if the press release was regarding ‘using

HIV antibodies to cure snake bites’ or ‘using snake bite antibodies to cure HIV’; either way they have an elevator pitch. The report clarified that the approach involved utilising monoclonals in an impressive £9 million proposal to reduce the burden of venomous snake bites in the developing world. Broadly, an approach of treating nasty diseases with (science from) nastier diseases is an attractive one; very much in keeping with the modern ideals of the four humours that Galen was proposing when I was in medical school.

The Guardian, Friday 24th May 2019.

PORK LIFE

How do you best demonstrate the impact of your research? How about the need for two accompanying editorials that question the ethical implications of your work? The brains of decapitated swine can be revived hours after death. Some cellular function booted back up when an oxygen-rich fluid was circulated through the brain, but consciousness was not returned. Creating zombie pigs is non-trivial. They developed

an extracorporeal pulsatile-perfusion system and a haemoglobin-based, acellular, non-coagulative, echogenic and cytoprotective perfusate that promotes recovery from anoxia, reduces reperfusion injury, prevents oedema and metabolically supports the energy requirements of the brain which they called BrainEx (BEx). The markers of success included anatomical preservation (figure 1) vascular dilatory and glial inflammatory responses, spontaneous synaptic activity and active cerebral metabolism in the absence of global electrocorticographic activity.

Nature 2019;568(7752):299–302.

SHIH TZU SNIFFS YOU. FITS? TRUE

Can dogs be trained to detect a specific interictal aura in individuals with epilepsy? Canine detectives are staple in police dramas and have a small literature in spotting cancers—but can they detect a transient seizure scent reliably? Five dogs were trained to the smell of the participant at rest, during exercise and during a seizure. The cases had focal epilepsy and the dogs had to recognise scent samples in cans (so that they were not responding to behavioural change). Three of the dogs performed at 100% sensitivity and specificity; the remaining two (Lana and Roo) displayed 67% sensitivity and 95% specificity. Wouldn't it be interesting to see if they were able to discriminate between epileptic and non-epileptic seizure scents?

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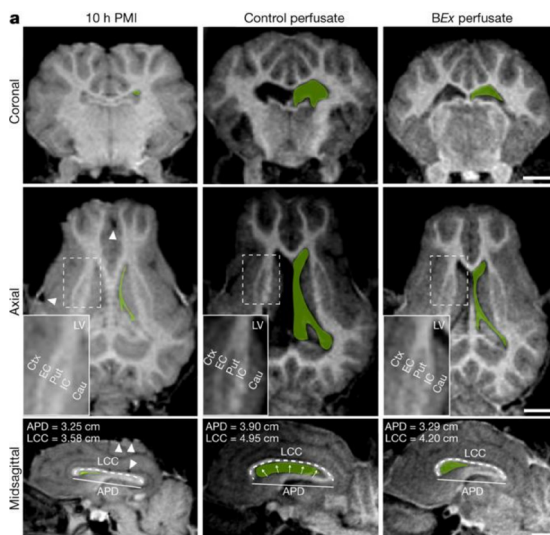


Figure 1 Under BEx-perfused conditions, the neuroanatomical structure remained intact, as demonstrated by normal ventricular size, preserved grey–white matter contrast and delineation among anatomical landmarks which were comparable to in vivo brains.