

Media Release

Much more than a gut feeling for faecal transplant patients

Embargoed until Tuesday, May 9 2017

With faecal transplants* becoming increasingly popular for the treatment of multiple conditions including chronic fatigue, irritable bowel syndrome, Parkinson's and autism, an RACP Fellow says there is now also anecdotal evidence of recipients mimicking the mood and other characteristics of their donor.

Changes to body shape (either weight gain or loss) and depression are examples that Austin Health's Associate Professor Patrick Charles will share as part of his presentation at the Royal Australasians College of Physicians (RACP) annual Congress event in Melbourne today.

Associate Professor Charles said although the DNA of humans usually only varies between 0.1 per cent – 0.5 per cent (i.e. 99.5 – 99.9 per cent of the human DNA is identical when comparing any two humans), the mixture of microbiome varies as much as 80 per cent.

"It is only now that we are beginning to recognise and understand the influence of microbiome on both our mind and body," explained Associate Professor Charles.

"Anecdotally, I have heard stories about patients experiencing fluctuations in their mood after receiving a faecal transplant. There have even been reports that patients with no prior history of depression have become depressed after receiving a transplant from someone with depression.

"There have also been cases where dramatic body changes have occurred – both rapid weight gain and weight loss, each time aligned to the donor.

"As the health sector continues to experiment with faecal transplants for various conditions, careful selection and screening of the donor has to remain a focus."

Despite more research being needed, Associate Professor Charles said patients who would benefit from the procedure should always consider it as an option.

"We're still really only just scratching the surface of what impacts microbiomes have on health and disease but as DNA sequencing techniques advance so will our understanding of their role," said Associate Professor Charles.

"In the case of *Clostridium difficile* infections success rates when using the faecal transplant method have generally tended to be in the range of 80 to 100 per cent, whereas with antibiotics it is often as low as about 30 per cent.

"This is significant because *Clostridium difficile* infections are becoming more common, more severe and more difficult to treat – as is the way with a range of infectious diseases. In some parts of the world it is even becoming life threatening as it grows resistance to certain strands of antibiotics."

Presenting on *Hot Topics in Infectious Diseases* at RACP Congress today, Associate Professor Charles will address:

- antibiotic resistance and the growing threat from increasingly resistant and even untreatable bacteria
- Clostridium difficile infections
- the role of faecal transplants to treat Clostridium difficile infections and other conditions

- the role of the human microbiome in health and disease and what faecal transplants and animal studies are teaching us about this
- treating recurrent urinary tract infections by putting 'good' bacteria into the bladder
- Zika virus where are we at and what is the risk to Australia
- recent cases of Ross River Fever
- Mycobacterium ulcerans skin infections in Australia

*What is a faecal transplant?

A Faecal microbiota transplant, sometimes known as an FMT, is a procedure which replaces the 'gut bacteria' in an unhealthy individual with those of someone who is healthy. This is done typically by enema, naso-gastric tube, endoscopy, or by taking a capsule containing freeze-dried material. Working somewhat like a probiotic, the idea behind the treatment is that rather than trying to augment your system with new biomes, it is easier and more effective to completely replace a patients gut bacteria with those of a healthy individual. The average adult human is weighed down by about 1–1.5 kg of stool.

Associate Professor Charles will address RACP Congress on Tuesday, 9 May 2017 at the Melbourne Convention and Exhibition Centre from 10.30am to 12.30pm.

More than 1000 physicians will attend RACP Congress 2017 to discuss a broad range of medical issues including ADHD, obesity, mental illness, cognitive bias and medical ethics. There are about 80 sessions/presentations with the full program available here. Media are welcome to attend and audio/video of select sessions is available.

Ends

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About The Royal Australasian College of Physicians (RACP): The RACP trains, educates and advocates on behalf of more than 15,000 physicians and 7,500 trainee physicians across Australia and New Zealand.

The College represents a broad range of medical specialties including general medicine, paediatrics and child health, cardiology, respiratory medicine, neurology, oncology, public health medicine, occupational and environmental medicine, palliative medicine, sexual health medicine, rehabilitation medicine, geriatric medicine and addiction medicine. Beyond the drive for medical excellence, the RACP is committed to developing health and social policies which bring vital improvements to the wellbeing of patients.

The College offers 60 training pathways. These lead to the award of one of seven qualifications that align with 45 specialist titles recognised by the Medical Board of Australia or allow for registration in nine vocational scopes with the Medical Council of New Zealand.