



A letter of reply to: Can the gastrointestinal microbiota be modulated by dietary fibre to treat obesity? Davis, H.C. *Ir J Med Sci* (2017). <https://doi.org/10.1007/s11845-017-1686-9>

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Dear Sir or Madam,

I write to agree with Davis' assessment of the role which our fibre intake and gut microbiome may play in triggering, exacerbating or managing obesity. However, I also wish to levy a caveat to this concept.

In Ireland, we find ourselves acutely aware of rising obesity rates [1]. While health research has spent much of the previous decades conducting a form of nutritional 'witch-hunt' for the culpable micro or macronutrient (i.e. dietary fats, refined carbohydrates, artificial sweeteners), we may indeed have overlooked something fundamental which was largely lost from our diet. In both time and space, dietary fibre appears to associate neatly with metabolic function.

Current estimates of Irish adult dietary fibre intake lie at a paltry $\sim 19 \text{ g day}^{-1}$ [2], substantially short of the current RDA of 25 g day^{-1} , which itself seems alarmingly inadequate when considering that of ancient and non-'Westernised' populations. Perhaps even more concerning is the fact that our metabolically impressionable paediatric population consumes roughly half this amount of fibre.

In line with this, there is now convincing preclinical evidence which suggests that consecutive generations of low-fibre intake compound microbiome diversity degeneration [3]. That is to say that we lose microbial species, and with them their metabolic benefits, with each generation sustained by our low-fibre Westernised diet.

We must, therefore, make a conscious and concerted effort as a national and global community to abridge the dietary fibre

gap, if we are to improve the metabolic health prospects of generations to come.

Kind Regards,

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Compliance with ethical standards

Conflict of interest The author declares that he has no conflict of interests

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