

Questions and Answers: Teagasc Research Insights webinar series
(Bio)Activity: Food Ingredients and Our Health and Fitness (4 November 2020)

#	1
Question	You say that, at 250 sq. metres, the surface area of the villi is about the same as the area of a soccer pitch. However a soccer pitch has an area of approx. 5,000 sq. m., about 20 times larger.
Answer(s)	I misspoke, my mistake. The surface area of the small intestine is closer to a tennis court.

#	2
Question	For Linda: can you correlate the aged cells to a specific age group within the elderly group?
Answer(s)	Not yet. But we hope to be able to follow ageing in our in vitro muscle cells.

#	3
Question	Q for Linda - what was the control in the casein hydrolysate/satiety study? - thank you
Answer(s)	Answered live

#	4
Question	Did you “clean up” the samples after SGID prior to putting onto gut barrier cells (Caco 2 cells?)
Answer(s)	Yes. Some degree of clean up must be included in order to incubate Caco2 monolayers with Food digesta. This clean up usually involves the use of protease inhibitors, molecular weight cut-off, dilution, heat inactivation of enzymes & possibly the use of media with FBS. In my lab I do not use heat inactivation as I am interested in the effect of processing. So the work I presented included protease inhibitors and dilution in buffer.

#	5
Question	Is there always a correlation between in vitro and in vivo tests performed to establish functionality of food bioactives? (Dr. Linda Giblin)
Answer(s)	Answered live

#	6
Question	What technology can be used for targeted delivery (for heart) of phenolics extract from rapeseed ?
Answer(s)	Answered live

#	7
Question	Which is the best method for extraction of protein or bioactives from seaweeds with maximum yield?
Answer(s)	Hi - this really depends on the active. In my opinion so far the best method to

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	extract protein from seaweeds is hydrolysis with enzymes but this changes the technofunctional activity of the protein. However, it can increase bioactivity and can also reduce any allergenicity
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#	8
Question	Is it possible to get a copy of the presentations? Great presentations so much detail.
Answer(s)	A copy of the presentations will be made available on our webpage: https://www.teagasc.ie/about/research--innovation/teagasc-research-insights-webinars/

#	9
Question	https://www.nature.com/articles/s41591-019-0485-4
Answer(s)	This is the link to the Nature medicine paper on marathon runners which I mentioned in relation to Veillonella species in my presentation.

#	10
Question	How should the average Jill/Joe increase their microbiome diversity?
Answer(s)	Eat a diverse diet of whole foods and exercise regularly.

#	11
Question	For people who don't have regular exercise, can they take more prebiotics to improve their diversity of microbes in their gut?
Answer(s)	Diet is hugely important for microbial diversity; if you cannot exercise I would suggest trying to include some fermented foods in your diet as they are rich in prebiotics and bioactives.

#	12
Question	Will the link to the recorded presentations be sent out to participants later?
Answer(s)	The recording of the webinar will be made available on our webpage: https://www.teagasc.ie/about/research--innovation/teagasc-research-insights-webinars/