From: Tim Oliver
To: SACN
Subject: Fw: Letter to Chair SACN

Professor Hilary Powers
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Dear Professor Powers

Re SACN Vitamin D document

I must congratulate you on your much awaited asssement of the nutritional requirements of Vitamin D which you can see from attachment 1 (8 page personal resume of the 159 page document) I have read in great detail. As you can see from attached 2(2page debateable issue) despite several disagreements, I feel, given the long time it has been incubating (though not as long as Chilcot and I have no desire to see it become weighed down by going line by line through all my suggestions) it should be published now as work in progress with recommendations for areas where there is an urgent need further work. The reason for this I would suggest is the breadth of your analysis highlighting apparent lack of reproduceable grade 1 data in multiple areas of human health in the face of apparent significant observational studies suggesting association.

There are four areas where I feel further work should be recommended to better understand these disparate diseases showing association without trial success

The first is is the failure of the document to review the evolutionary development of Vitamin D synthesis as data published in 1930s shows sizeable proportion of Plankton produce Vitamin D and in 1992 Holick reviewed Vitamin Synthesis in non-vertebrate kingdom (see http://www.ncbi.nlm.nih.gov/pubmed/1297827). This data suggests that it may have evolved from the photosynthetic pathways in plants and if so duplication of the genetic system could explain why it is involved in neuronal, muscule cell and phagocytic/immune cell development of invertebrates long before it became involved in bone formation. Clearly if so modern urban 24/7 living for 10-40 years on the borders of "Sun-deficiency" could account for a wide range of pathhologies and the lack of gain from relatively short term trials of Vitamin D, only one of the health enhancing products of sunshine. As well as most cancer (see attached View point), it could well explain the development of Rheumatoid Arthritis, Chrons and Ulcerative colitis (attached 4)

Secondly Newton-Bishop's as yet unconfirmed observation that two days outdoor activity significantly reduces risk of melanoma suggesting that, like therapeutic radiation, some UV radiation damage is repairable with time away from exposure and it could be less than the five days implied by her research and closer to the 90% repair within 3 hours for therapeutic radiation (knowledge of which enables the much more dangerous therapeutic radiation to

cure cancer). If this is the case, your current report using recommendation about sun exposure are completely wrong and should not be used in this document but replaced by the 2010 Cosensus statement and hopefully reinforced by the NICE guidance on sunlight exposure due shortly (see http://www.nice.org.uk/guidance/GID-PHG77/documents/sunlight-exposure-risks-and-benefits-draft-guideline2)

The third point is the complete absence of discussions about liver as a source of Vitamin D in the diet which is known to make a major contribution to lack of deficiency illnesses in Northern Norway Eskimo populations that should be corrected. It could also explain why African populations in the UK have a higher Vitamin D level than Asians.

The fourth point is complete lack of any discussions of Vitamin D content in Meat, Eggs and Milk taken from modern indoor reared animals compared to those reared outdoors and slaughtered at the end of summer.

If these points were accepted, then I think it might be reasonable to circulate to every household table 1 (103rd page section 620) modified to include liver as a separate meat item and page 113 section 688. This should be tabulated to show daily time at 12 noon (as well as the time required if just two days exposure per week as demonstrated by Newton Bishop to reduce risk of Melanoma) during summer months required for average Caucasian, Asian and African to reach 80 nmol/L by September
In addition it might make a greater impact if it coincided with NICE sunlight exposure guidance
Yours sincerely

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