The effect of seaweed derived polyphenols on inflammation and oxidative stress in vivo – The SWAFAX Study

Baldrick, F.R.¹, Sung, C.¹, Hotchkiss, S.², Wallace, J.M.W.¹, and Gill, C.I.R.¹

¹Northern Ireland Centre for Food and Health, Biomedical Sciences Research Institute, University of Ulster, Coleraine, BT52 1SA, Northern Ireland.
²Cybercolloids Ltd., Carrigaline Industrial Estate, Carrigaline, County Cork, Ireland.

Corresponding Author:
Tel.: (028) 7012 4096
Email: fr.baldrick@ulster.ac.uk

Results to date

Baseline characteristics
- Age (yr) 42.7 ± 7.1
- Gender
  - Men n=39 (49%)
  - Women n=41 (51%)
- BMI (kg/m²) 30.2 ± 3.9

Overall study compliance = 97%

Compliance was not significantly different by treatment group or time period

Preliminary findings

Bioavailability study
Volunteers (n=24) ingested one seaweed extract capsule. Urine samples collected over 24 hours and analysed by HPLC-DAD

Outcome measures
- DNA damage in lymphocytes using Comet assay
- Triglycerides, cholesterol, LDL, HDL (plasma)
- Sapporopinines (serum)
- Creatine kinase (serum)
- Intracellular cytokine activity using Flow cytometry
- Polyphenols (URED)
- Total oxidant capacity (TOC) (URED)

Seaweed polyphenols (A and B) detected in urine samples collected at 8-24 hours after treatment

Conclusions
- This study is a focused investigation designed to provide strong scientific evidence for the bioavailability and health promoting activity of a seaweed polyphenol extract in human volunteers.
- This study will provide information on the antioxidant and anti-inflammatory potential of a range of novel seaweed extracts that could be further exploited.

References

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Polyphenol extract manufactured by CEVA, France

Collaborators:

For further information:
http://www.seaweedforhealth.org/swafax/