Clinical Notes II.

Note of relevance on protection against allergy and other chronic diseases

* *Inverse association between helminth infection and allergy and other chronic diseases* there is compelling evidence of a strong inverse association between infection by various helminths and biomarkers of chronic inflammatory diseases and allergy
* *A causal association is plausible*

a direct causality is plausible, taking into consideration experimental studies in animal models and humans

* *No robust association between helminth infection and protection against diseases*

we found no robust evidence for causal associations between helminth infection and clinically relevant protection against disease, however

* *Exposure to helminths occur in a diverse environment* *that may be itself protective*

in the real world, exposure to helminths often occur in a markedly different environmental, ethnical and lifestyle context, including contrasts in ancestrality, physical activity, diet, nutrition, stress, exposure to air pollution and to microorganisms

* *A protective environment may overshadow the effects of helminth infection*

the potential influence of multiple factors in the health and diseases balance may overshadow the impact of exposure to parasites

* *The inverse associations may not be directly causal*

the inverse associations between helminth infections and biomarkers of chronic inflammatory diseases and allergy may not be directly causal, but linked to conditions related to parasite infections