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Epidemiological transition in Indonesia : impact of helminths and urbanization on the development of Type 2 diabetes

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EPIDEMIOLOGICAL TRANSITION IN INDONESIA:

Impact of Helminths and Urbanization on The Development of Type 2 Diabetes

1. Anthelmintic treatment increases insulin resistance in helminth-infected subjects (this thesis), which endorses the need for metabolic health monitoring in parallel with the ongoing deworming programs.
2. Increased adiposity and a shift toward a more pro-inflammatory adipokine profile might be the main factors that contribute to the increased insulin resistance after anthelmintic treatment (this thesis).
3. Rural-urban differences in insulin resistance between subjects migrating from Flores Island to Jakarta, Indonesia are mainly explained by the difference in adiposity, which progressively increases with increasing duration of time spent in an urban area. (this thesis)
4. Neither rural living nor factors associated with rural living such as current helminth infection, were associated with protection against acute induction of insulin resistance by high fat diet. (this thesis)
5. Understanding of the pathways underlying beneficial metabolic effects associated with helminth infections will be important for the development of novel therapeutic strategies to prevent or treat type 2 diabetes (Tracey EF, Diab Res Clin Pract. 2016)
6. All populations appear to develop diseases of civilization if they consume Western foods and have sedentary lifestyles, therefore, it seems prudent for modern-day humans to remember their evolutionary heritage in terms of lifestyle. (Klonoff DC, J Diabetes Sci Technol. 2009)
7. Biodiversity loss might potentially lead to immune dysfunction and disease, which in turn could have numerous public health implications that are increasingly apparent in the developed world and will have a major impact on developing countries in the near future. (Von Hertzen L, EMBO reports. 2011)
8. The cross-talk between the immune and the metabolic systems is pivotal in promoting metabolic health throughout the life of an organism and plays fundamental roles in its adaptation to ever-changing environmental makeups and nutritional availability. (Zmora N, Cell 2017)
9. One important aspect of a field study is to have a team of people with diverse backgrounds who complement each other.
10. The most difficult part in doing a community-based study is to continuously strive at making your study useful, not only for the scientific development, but mainly for the direct benefits to the community.
11. Being a scientist after spending most of your life as merely a clinician is not an easy task, but in the end, it will equip you with different perspectives in assessing health problems.