

Reply

To the Editor:

We are happy to have response from Dr Graham Burdge on the findings of our study [1]. We are certainly aware of his work, but wish to mention here that his work is on 9% protein level, that is, 50% reduction from control protein level. We have observed that rural Indian mothers do not have protein inadequacy to this extent [2]. Therefore, it was thought appropriate and relevant to examine the effect of folic acid supplementation, a conventional maternal supplementation adopted in most developing countries, at marginal protein rather than such low protein levels.

It may be worthwhile to mention here that his findings observed at 9% protein level are not observed by us at 12% protein level, that is, marginal protein level, but are observed at the same level with excess folic acid supplementation. Thus, although his studies highlight the adverse effects of protein restriction per se, our studies are highlighting the adverse effects of excess folate supplementation at marginal protein level.

We are happy to note his comment that modulation of 22:6n-3 concentration in pregnancy does not simply reflect the availability of 1-carbon donors. In that case it explores the possibility that excess folic acid leads to increased oxidative stress as indicated increased by corticosterone levels observed in our study.

We completely agree with his comment that findings from his studies as well as our studies jointly address the need for understanding interactions between levels of maternal protein and micronutrients such as folic acid and its long-term effect on the offspring. In this context, our study suggests the need for reappraisal of maternal supplementation of folic acid, which is in operation for over 2 decades in India.

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References

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- [2] Rao S, Yajnik CS, Kanade A, Fall CHD, Margetts BM, Jakson AA, et al. Intake of micronutrient rich foods in rural Indian mothers is associated with the size of their babies at birth: Pune Maternal Nutrition Study. *J Nutr* 2001;131:1217-24.