



## Editorial

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As the study of the effects of trace elements in mammals is a relatively mature field, rarely does a publication appear that has the potential to lead to a re-interpretation of the mode of action of a trace element. However, the elucidation of the effects and mechanism behind these effects for the element chromium have trailed behind those for the other trace elements. Only in the last 10 to 20 years has chromium been shown to appear to not be an essential element but to have pharmacological effects on insulin sensitivity and glucose uptake at high doses, far above expected dietary intakes. Yet, even then the mechanism and mode of action of chromium in its trivalent state have remained areas of dispute. Recently, however, Sun and coworkers have demonstrated using some of the latest techniques that mitochondrial ATP synthase may be a direct target of trivalent chromium, leading to improvement of increased glucose levels associated with diabetes [1]. Because of the potential significance of this research, BTER has invited three peer-reviewed contributions from major researchers in the field of chromium biochemistry and nutrition to assess this research and place it into perspective. We hope that these contributions will help stimulate further research into the mechanism(s) behind chromium ability to increase insulin sensitivity.

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Co-editors-in-chief

## References

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