

## LETTER to the EDITOR

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# Correspondence on Leptin Receptor Q223R Gene Polymorphism and Breast Cancer

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### Dear Editor

Dear Editor, the publication by Atoum et al., (2022) in the journal is very interesting. Atoum et al., (2022) found that *LEPR* polymorphism Q223R GG genotype (Arg/Arg genotype) was linked to a higher leptin profile in obese breast cancer women (Atoum et al., 2022). This phenomenon is possible and might be explained by the change of molecular weight. For Arg/Arg genotype, the basic molecular weight (248.4) is less than those of Gln/Gln (292.28) or Arg/Gln (229.34) genotypes. Therefore, at the same mass, a less molecule for complete reaction to form leptin is required for Arg/Arg genotype. Hence, a higher level of leptin might be observed for Arg/Arg genotype. Nevertheless, we should also recognize that there might also be other confounding effect that can alter the leptin level. Nutrition and metabolic disease can also affect leptin level (Stanhope, 2016). Also, there are other polymorphisms of leptin, which are not investigated by Atoum et al., that can result in high leptin level. The best example is *Lys656Asn* polymorphism (de Luis DA et al., 2013).

### Conflict of interest

No conflict of interest.

**Keywords:** Leptin- receptor- polymorphism- breast-cancer

### References

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