Reviewer's report

Title: INSULIN RESISTANCE IN ADOLESCENTS WITH DOWN'S SYNDROME: A CROSS-SECTIONAL STUDY Cristina Teixeira da Fonseca MD (1S), Daniela Mendes Amaral MD(1*), Marcia Goncalves Ribeiro MD, PHD (2*), Izabel Calland Ricarte Beserra MD (3*), Marilia Martins Guimaraes MD, PHD (3,4*) Institution: Endocrinology Services of Hospital Universitario Clementino Fraga Filho (HUCFF) and Instituto de Puericultura e Pediatria Martagao Gesteira (IPPMG) - Federal University of Rio de Janeiro (UFRJ), Rio de Janeiro, Brazil 1. Post-Graduate Program of Endocrinology, Medicine School, Federal University of Rio de Janeiro (UFRJ) - Av. Brigadeiro Trompowski, s/n, HUCFF, Ilha do Fundao, Rio de Janeiro, RJ, Brazil 2. Genetics Department, IPPMG, Federal University of Rio de Janeiro; 3. Pediatrics Department, IPPMG, Federal University of Rio de Janeiro; 4. Endocrinology Department - HUCFF, Federal University of Rio de Janeiro. * These authors equally contributed to this work; S Corresponding aut

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Reviewer: Phyllis Speiser

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General: This is a cross-sectional study aimed at detecting signs of insulin resistance by a relatively insensitive method in a small number of adolescents with Trisomy 21.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Methods, p5, para 6: The normal range of fasting blood glucose should not exceed 100 mg/dl according to the American Diabetes Association. Please correct this in the text.

2. The authors should acknowledge that none of their study subjects had insulin resistance. Obese children with normal glucose tolerance measured by either clamp or OGTT have HOMA values of ~7.0 +/- 0.5, whereas those with impaired glucose tolerance had levels 10.4-11.7 +/- 1 (JCEM 89:1096, 2004). The highest HOMA reported in the present manuscript os 3.8. Since there was no longitudinal follow-up, one has no idea of the clinical significance of higher versus lower normal HOMA values in this study population.

3. The authors should further acknowledge that HOMA is not as sensitive or as reproducible a measure of insulin sensitivity as clamp studies.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest
Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.