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A Low-Protein, High-Carbohydrate Diet Increases Browning in Perirenal Adipose Tissue but not in Inguinal Adipose Tissue

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A LOW-PROTEIN, HIGH-CARBOHYDRATE DIET INCREASES BROWNING IN PERIRENAL ADIPOSE TISSUE BUT NOT IN INGUINAL ADIPOSE TISSUE

Running Head: LPHC DIET AND BROWNING PROCESS IN WHITE ADIPOSE TISSUES

Keywords: Brite; Protein restriction; Energy expenditure; Low-protein, high-carbohydrate diet; white adipose tissue

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Abbreviations: AMPK – AMP-activated protein kinase; ATGL – Adipose triglyceride lipase; BAT – Brown adipose tissue; C – Control; DAG – Diacylglycerol; FA – Fatty acids; FGF21 – Fibroblast growth factor 21; G3P – Glycerol 3-phosphate; GLUT 4 – Glucose transporter 4; GyK – Glycerokinase; HSL – Hormone-sensitive lipase; iBAT - Interscapular brown adipose tissue; ingWAT – inguinal white adipose tissue; LPHC – Low-protein, high-carbohydrate; LPL – Lipoprotein Lipase; pAMPK – Phosphorylated AMP-activated protein kinase; PEPCK – Phosphoenolpyruvate carboxykinase; periWAT – perirenal white adipose tissue; PKA – Protein kinase A; TAG – Triacylglycerol; TNF- α - Tumor necrosis factor α; UCP1 – Uncoupling protein; WAT – White adipose tissue.