**Editor’s Comment:**

The aim of the presented study was to investigate the metabolic consequences of TP53 GOF

mutations (R175H and R273H) on prostate cancer progression using metabolomics analysis

since data on TP53 mutations, especially gain-of-function (GOF) mutations, and their specific

impact on prostate cancer metabolism remain limited, highlighting the need for a deeper

understanding to discover new therapeutic avenues. The authors identified dysregulation of key

metabolites such as α-ketoglutarate and spermidine that support cancer cell survival and

progression. These findings not only expand our understanding of the interplay between TP53

mutations and metabolic alterations, but also identify potential biomarkers for prognosis and

therapeutic targeting in therapy-resistant prostate cancer. The presented diagrams provide

insights into how TP53 mutations affect metabolism, which may be useful for understanding

cancer progression or identifying potential therapeutic targets. The article is constructive, fully

prepared for publication and suggests additional research, therapeutic strategies targeting

polyamine metabolism, redox imbalance and TCA cycle abnormalities, which may provide new

treatment avenues especially for therapy-resistant prostate cancer.

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