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Precision Immuno-Oncology: How Can we Improve Responses to Immunotherapy in Bladder Cancer?

*Kris Prado and Chin Arnold**

Department of Urology, Broad Stem Cell Research Center, and Jonsson Comprehensive Cancer Center, USA

Letter to Editor

Immuno-Oncology has energized the oncology landscape, including in the treatment of bladder cancer. Validation of multiple combinational strategies and novel immune targets will be forthcoming. Current challenges in PD-1/PD-L1 checkpoint inhibition have been developing accurate biomarkers to predict response, as PD-L1 expression itself is an inaccurate indicator. Mutational load or burden is indicative of tumor immunogenicity and thus susceptibility to immunotherapy. Perhaps these parameters will be more predictive than PD-L1 expression. I Vigor 210 revealed higher response and survival rates to atezolizumabin patients with increased mutational burdens [1]. Furthermore, mismatch repair mechanisms can influence mutational load and mutation-associated neo-antigens, with evidence that patients with mismatch repair deficiencies are more sensitive to anti-PD-1 therapy across multiple cancer types [2]. Fundamental understanding and clinical evaluation of mismatch repair deficiency and mutational load will be imperative in moving forward with immunotherapy for muscle invasive bladder cancer.

References

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Correspondence:
Chin Arnold, Department of Urology, Broad Stem Cell Research Center, and Jonsson Comprehensive Cancer Center, USA,
E-mail: ArnoldChin@mednet.ucla.edu

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