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(54) Title: THERAPEUTIC RNA FOR PROSTATE CANCER

(57) Abstract: Disclosed herein are compositions, uses, and methods for treatment of prostate cancers. In one aspect, disclosed herein is a composition or medical preparation comprising at least one RNA, wherein the at least one RNA encodes the following amino acid sequences: (i) an amino acid sequence comprising Kallikrein-2 (KLK2), an immunogenic variant thereof, or an immunogenic fragment of the KLK2 or the immunogenic variant thereof; (ii) an amino acid sequence comprising Prostate Specific Antigen (PSA), an immunogenic variant thereof, or an immunogenic fragment of the PSA or the immunogenic variant thereof; (iii) an amino acid sequence comprising Prostatic Acid Phosphatase (PAP), an immunogenic variant thereof, or an immunogenic fragment of the PAP or the immunogenic variant thereof; (iv) an amino acid sequence comprising Homeobox B13 (HOXB13), an immunogenic variant thereof, or an immunogenic fragment of the HOXB13 or the immunogenic variant thereof; and (v) an amino acid sequence comprising NK3 Homeobox 1 (NKX3-1), an immunogenic variant thereof, or an immunogenic fragment of the NKX3-1 or the immunogenic variant thereof.