CLAIMS

1. An isolated protein comprising one or more of the epitopes listed in Tables 1-3.

2. The isolated protein of claim 1, wherein the one or more epitopes comprises a BK virus (BKV) epitope listed in Table 1, a JC virus (JCV) epitope listed in Table 2, or a hybrid epitope according to Table 3.

3. The isolated protein of claim 1 or 2, wherein the peptide comprises a plurality of epitopes listed in Tables 1-3.

4. The isolated protein of any one of claims 1 to 3, further comprising an intervening amino acid sequence between at least two of the plurality of epitopes.

5. The isolated protein of claim 1, wherein the epitopes have HLA class I restrictions to HLA-Al, -A2, -A3, -A11, -A23, -A24, -A26, -A29, - A30, -B7, -B8, -B27, - B35, -B38, -B40, -B41, -B44, -B51, -B56, -B57 or -B58.

6. The isolated protein of claim 1, wherein the epitopes have HLA class II restrictions to HLA-DP, -DM, -DOA, -DOB, -DQ, or -DR.

7. The isolated protein of any one-of claims 1 to 6, wherein the isolated protein comprises epitope amino acid sequences set forth in SEQ ID NOS: 5, 6, 36, 41 and 42.

8. The isolated protein of any one of claims 1 to 7, wherein the isolated protein further comprises one or more epitopes from Merkel cell virus (MCV).

9. The isolated protein of claim 1, further comprising one or more epitopes from a non-polyomavirus.

10. An isolated nucleic acid encoding the isolated protein of any preceding claim.

11. An expression construct comprising the isolated nucleic acid of claim 10.

12. A pharmaceutical composition comprising the isolated protein of any one of claims 1 to 11 and a pharmaceutically acceptable carrier.

13. A vaccine composition comprising the isolated protein of any one of claims 1 to 12 and a pharmaceutically acceptable carrier.

14. Use of a pharmaceutical composition comprising cytotoxic T cells (CTLs) comprising T cell receptors (TCRs) that recognize one or more epitopes listed in Tables 1-3 in the manufacture of a medicament for treating or preventing a cancer in a subject.

15. The use of claim 14, wherein the cancer is a BK virus (BKV), a JC virus (JCV), or a Merkel Cell Virus (MCV) associated cancer.

16. Use of a pharmaceutical composition comprising cytotoxic T cells (CTLs) comprising T cell receptors (TCRs) that recognize one or more epitopes listed in Tables 1-3 in the manufacture of a medicament for treating or preventing a polyomavirus infection in a subject.

17. The use of claim 16, wherein the polyomavirus is a BK virus (BKV), a JC virus (JCV), or a Merkel Cell Virus (MCV).

18. The use of claim 16 or 17, wherein the TCRs recognize an epitope shared by two or more polyomaviruses.

19. The use of claim 18, wherein the shared epitope comprises a region of sequence homology between the at least two polyomaviruses, and the region of sequence homology is at least three amino acids across the full length of the epitope sequence.

20. An *in-vitro* method of inducing proliferation of polyomavirus-specific cytotoxic T cells (CTLs), comprising contacting CTLs with antigen-presenting cells (APCs) that present a polyomavirus peptide comprising one or more epitopes listed in Tables 1-3.

21. The method of claim 20, wherein the one or more epitopes comprise a BK virus (BKV) epitope listed in Table 1.

22. The method of claim 21 or 22, wherein the one or more epitopes comprise a JC virus (JCV) epitope listed in Table 2.

23. The method of any one of claims 20 to 22, wherein the one or more epitopes comprise a hybrid epitope according to Table 3.