Table S1. T cell Product Release Criteria

Release Test	Test Methodology	Criteria for Passing
Viability	Guava counts*	>75% viability
Plasmid vector copy number	Southern w/HyTK-specific probe	Single band
IL-13 zetakine expression	Western w/CD3ζ-specific antibody	Unique 66kDa band
Surface phenotype	Flow cytometry	Uniformly IL-13^{+}, TCRαβ^{+}, CD8^{+}, and CD4^{-}
IL-13Rα2-specific cytolytic activity	4hr ^{51}Cr release assay	≥25% specific lysis at E:T of 5:1
Sensitivity to ganciclovir	14-day culture, trypan blue dye exclusion	<15% of control viable cell #
Antigen/IL-2 dependent growth	^{3}H-TdR uptake assay	<10% of Jurkat c.p.m.
Sterility	Bacterial and fungal growth media Gen-Probe mycoplasma detection Endotoxin ELISA Gram stain	Negative cultures Negative mycoplasma < 5 EU/kg Negative gram stain

Table S2. Manufacturing Feasibility

UPN#	Gender	Age at enrollment (yrs)	Cell Product Notes	Other Notes
024	Female	60	Successfully cryopreserved	Before product released, patient ineligible to receive T cells due to progression requiring alternative medical, radiation or surgical intervention.
025	Male	62	Successfully cryopreserved and released	Patient ineligible to receive T cells due to progression requiring alternative medical, radiation or surgical intervention.
026	Male	47	Successfully cryopreserved and released	Protocol closed to treatment prior to recurrence of disease.
027	Male	50	Successfully cryopreserved and released	Patient expired with disease progression prior to receiving T cells.
028	**Female**	**57**	**Successfully cryopreserved and released**	**Received 11 of 12 infusions – day 1 of cycle 3 skipped due to transient worsening of headache.** Patient off study due to progression requiring alternative medical, radiation or surgical intervention.
029	Female	29	Successfully cryopreserved	Before product released, patient ineligible to receive T cells due to steroid dependence.
030	Male	56	Successfully cryopreserved and released	Patient ineligible to receive T cells due to steroid dependence.
031	**Female**	**36**	**Successfully cryopreserved and released**	**Received 12 infusions.** Patient off study due to progression requiring alternative medical, radiation or surgical intervention.
032	Female	65	Leukapheresed, but no product made	Patient ineligible to receive T cells due to progression requiring alternative medical, radiation or surgical intervention.
033	**Male**	**57**	**Successfully cryopreserved and released**	**Received 12 infusions.** Patient off study due to progression requiring alternative medical, radiation or surgical intervention.
034	Female	22	Successfully cryopreserved and released	Protocol closed to treatment prior to recurrence of disease.
036	Female	47	Successfully cryopreserved and released	Voluntary withdrawal at time of progression.
038	Female	37	Successfully cryopreserved and released	Protocol closed to treatment prior to recurrence of disease.

Table S3. Characteristics of Patients Who Received Study Treatment

UPN#	Gender	Age at enrollment (yrs)	Histology at diagnosis	Histology at Recurrence	Prior Therapies	KPS at Recurrence
028	Female	57	Grade II oligodendroglioma	GBM with oligodendroglioma components	Surgery (x2) BCNU Wafers BCNU i.v. Radiation Temozolomide	90%
031	Female	36	GBM	GBM	Surgery Radiation Temozolomide	90%
033	Male	57	GBM	GBM	Surgery Radiation Temozolomide	90%