Langerhans dendritic cell vaccines bearing mRNA-encoded tumor antigens induce anti-myeloma immunity after autotransplant

TABLES (supplemental)

Table S1A. Viability and Phenotype of Langerhans Cell Vaccines Administered to Patients

	% viability of total (mean ± SEM)	% viable HLA-DR^{bright} CD14^{neg} of total (mean ± SEM)	%CD83 of viable HLA-DR^{bright} CD14^{neg} (mean ± SEM)	%CD86 of viable HLA-DR^{bright} CD14^{neg} (mean ± SEM)
CD34^{+} derived LCs	81.79 ± 2.16	46.61 ± 4.94[1]	87.08 ± 1.97[1]	86.60 ± 2.53

[1]The major contaminants of the LCs were immature myeloid cells, mostly eosinophils [15]. Vaccines were dosed according to the absolute number of CD83^{+} CD86^{+} HLA-DR^{bright} CD14^{neg}

Table S1B. Criteria for Release of Langerhans Cell Vaccines for Patient Administration

Variable	Test	Result required for release
Bacteria and fungus	Culture in thioglycolate broth and soybean casein digest medium	No growth after 5 days of in-process culture. No growth confirmation of final product after administration.
Endotoxin	Gram stain Limulus amebocyte lysate (BioWhittaker; CBER/FDA biologic license number 709)	Negative on final product <5 endotoxin units
Mycoplasma	PCR	Negative result, in process 48 hrs before end of culture.
Viability	Propidium iodide (PI) staining of large forward scatter (FSC) cells on flow cytometry	<30% PI positive (or ≥ 70% viable)
Phenotype (flow cytometry)	Flow cytometry: gated population of large FSC, CD14 neg, class II MHC bright cells	≥ 50% CD83+ ≥ 50% CD86+

FIGURES (supplemental)

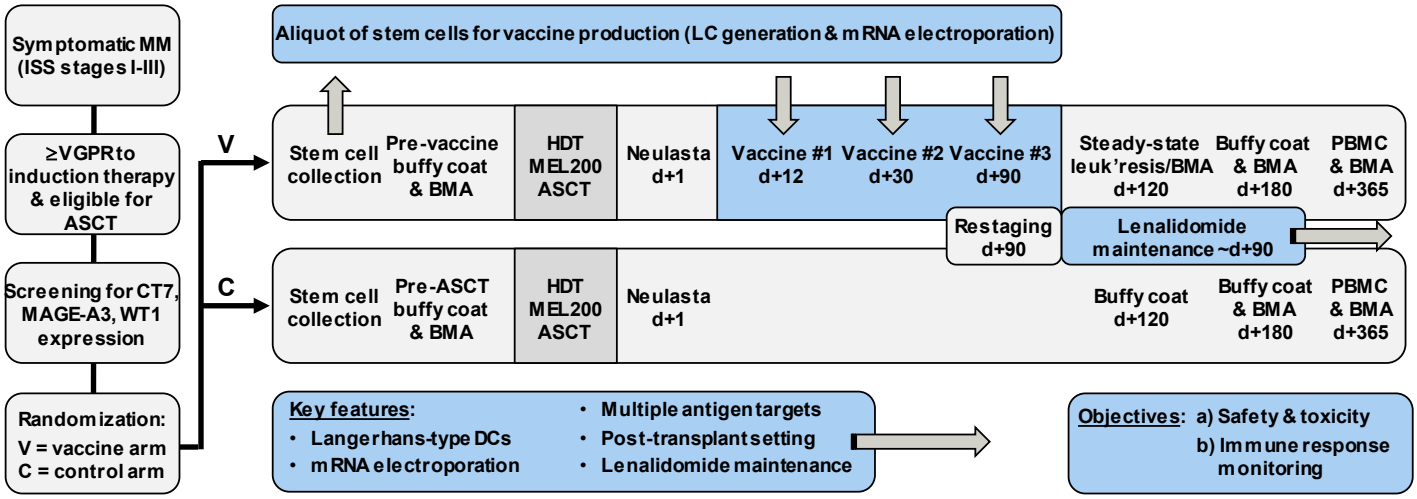

Figure S1. Study schema.

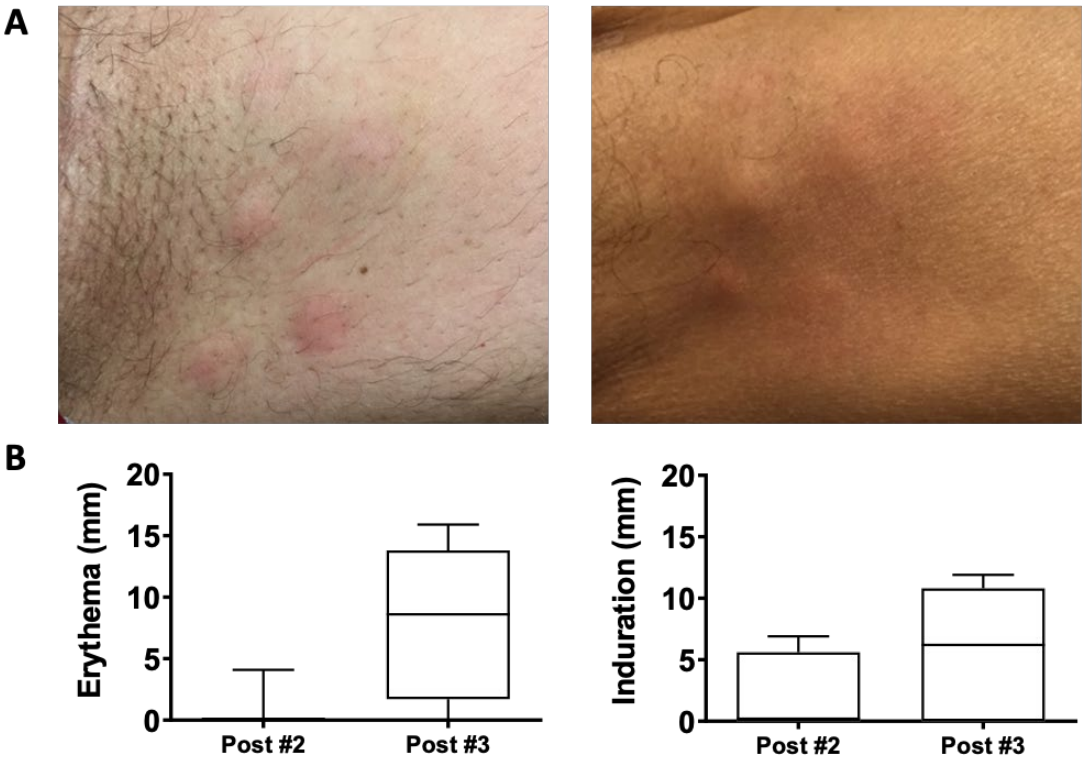

Figure S2. LC vaccines stimulate delayed type hypersensitivity reactions after booster vaccines. (A) Representative photographs from two patients showing erythema (left panel) and induration (right panel) approximately 48 hours after booster vaccine administration. **(B)** Erythema (left panel) and induration (right

panel) were measured at the greatest diameter at each of ten injection sites to determine the mean for each parameter for each patient after booster vaccines 2 and 3. Pooled data (mean ± SD) from ten patients are shown.