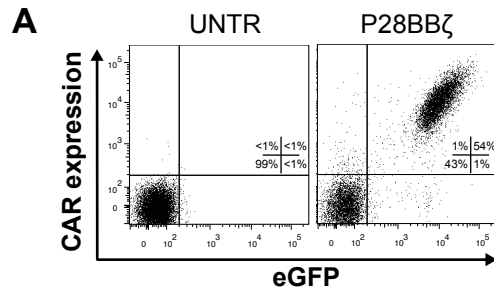
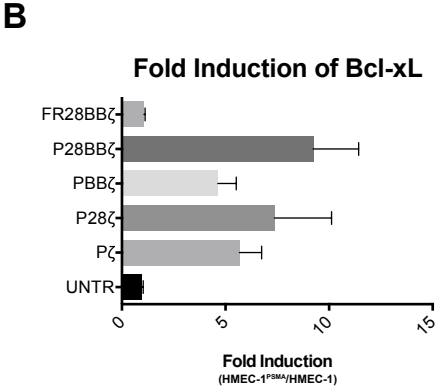
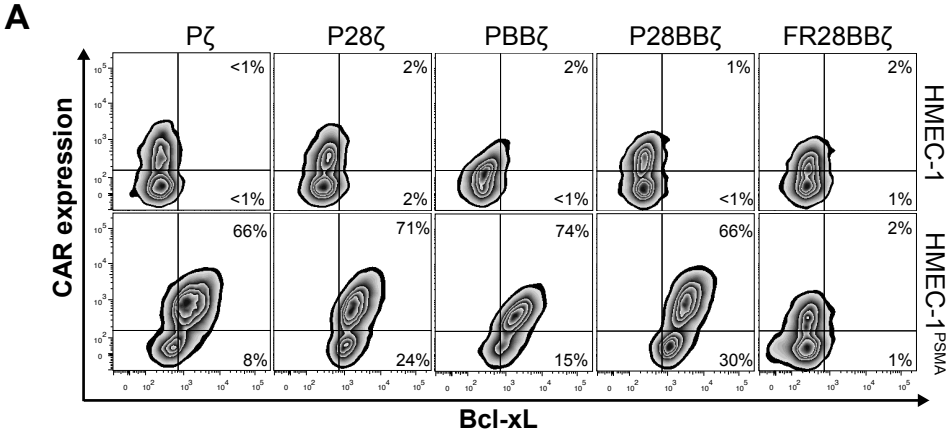


Supplementary Figure S1



Supplementary Figure S2



Supplementary Figure S3

A

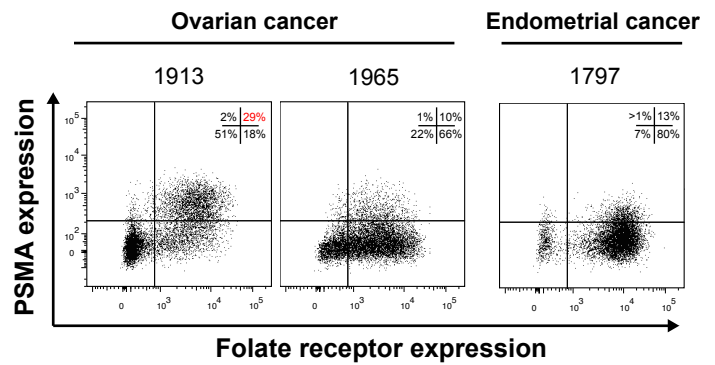
| Tumor Type | Study | | | | | | | |
|-------------------------------|-----------------------------|-------------------------------|------------------------------|----------------------------|----------------------------|-----------------------------|---------------------------|--------------------------|
| | Wernicke et al ¹ | Abdel-Hadi et al ² | Samplaski et al ³ | Haffner et al ⁴ | Haffner et al ⁵ | Denmeade et al ⁶ | Silver et al ⁷ | Chang et al ⁸ |
| | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) | Number (%) |
| Bladder Cancer | | | 8/167 (5%) | | | 40/94 (43%) | 68/92 (54%) | |
| Breast Cancer | 68/92 (74%) | | | | | 34/44 (75%) | | 5/6 (83%) |
| Colorectal Carcinoma | | 75/100 (75%) | | | 110/130 (85%) | | 3/29 (16%) | 5/5 (100%) |
| Gastric Cancer | | | | | 79/119 (66%) | | | |
| Hepatocellular Cancer | | | | | | 39/41 (95%) | | |
| Melanoma | | | | | | 25/44 (57%) | | 5/5 (100%) |
| Non-small cell lung carcinoma | | | | | | | | 5/5 (100%) |
| Oral Cancer | | | | 72/96 (75%) | | | | |
| Ovarian Cancer | | | | | | 25/34 (75%) | | |
| Pancreatic ductal carcinoma | | | | | | | | 4/4 (100%) |
| Renal Cancer | | | | | | 44/46 (95%) | 8/17 (47%) | 11/11 (100%) |

- 1 Wernicke, AG, Varma, S, Greenwood, EA, Christos, PJ, Chao, KS, Liu, H, et al. (2014). Prostate-specific membrane antigen expression in tumor-associated vasculature of breast cancers. *APMIS : acta pathologica, microbiologica, et immunologica Scandinavica* **122**: 482-489.
- 2 Abdel-Hadi, M, Ismail, Y, and Younis, L (2014). Prostate-specific membrane antigen (PSMA) immunexpression in the neovasculature of colorectal carcinoma in Egyptian patients. *Pathology, research and practice*.
- 3 Samplaski, MK, Heston, W, Elson, P, Magi-Galluzzi, C, and Hansel, DE (2011). Folate hydrolase (prostate-specific membrane [corrected] antigen) 1 expression in bladder cancer subtypes and associated tumor neovasculature. *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc* **24**: 1521-1529.
- 4 Haffner, MC, Kronberger, IE, Ross, JS, Sheehan, CE, Zitt, M, Muhlmann, G, et al. (2009). Prostate-specific membrane antigen expression in the neovasculature of gastric and colorectal cancers. *Human pathology* **40**: 1754-1761.
- 5 Haffner, MC, Laimer, J, Chau, A, Schafer, G, Obrist, P, Brunner, A, et al. (2012). High expression of prostate-specific membrane antigen in the tumor-associated neo-vasculature is associated with worse prognosis in squamous cell carcinoma of the oral cavity. *Modern pathology : an official journal of the United States and Canadian Academy of Pathology, Inc* **25**: 1079-1085.
- 6 Denmeade, SR, Mhaka, AM, Rosen, DM, Brennen, WN, Dalrymple, S, Dach, I, et al. (2012). Engineering a prostate-specific membrane antigen-activated tumor endothelial cell prodrg for cancer therapy. *Science translational medicine* **4**: 140ra186.
- 7 Silver, DA, Pellicer, I, Fair, WR, Heston, WD, and Cordon-Cardo, C (1997). Prostate-specific membrane antigen expression in normal and malignant human tissues. *Clinical cancer research : an official journal of the American Association for Cancer Research* **3**: 81-85.
- 8 Chang, SS, Reuter, VE, Heston, WD, Bander, NH, Grauer, LS, and Gaudin, PB (1999). Five different anti-prostate-specific membrane antigen (PSMA) antibodies confirm PSMA expression in tumor-associated neovasculature. *Cancer research* **59**: 3192-3198.

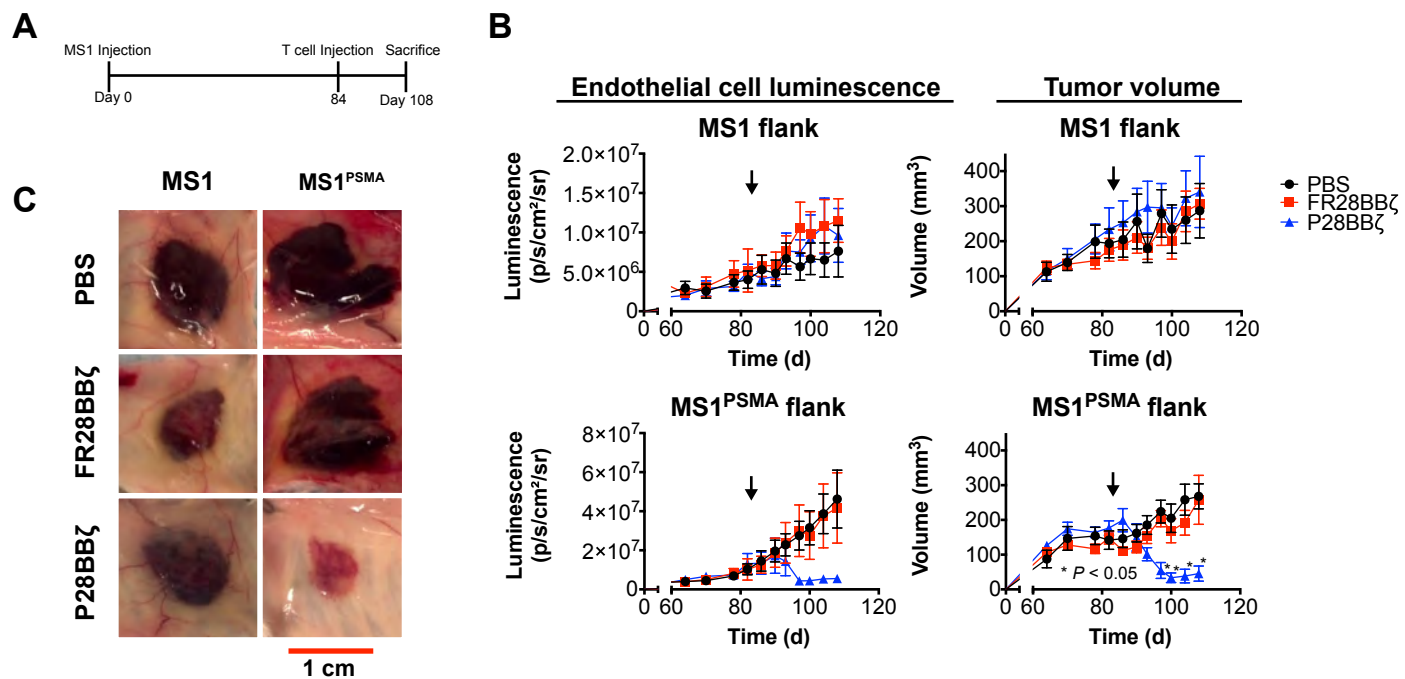
B

| Tumor Type | Less than 50% of tumor vessels are PSMA ⁺ | |
|----------------------|--|--|
| | Number (%) | |
| Bladder Cancer | NA (10-100%) ³ | |
| Breast Cancer | 26/48 (54%) ¹ | |
| Colorectal Carcinoma | 52/75 (69%) ² , 52/130 (40%) ⁴ | |
| Gastric Cancer | 56/79 (71%) ⁴ | |
| Oral Cancer | 48/72 (67%) ⁵ | |

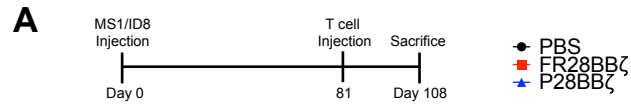
C



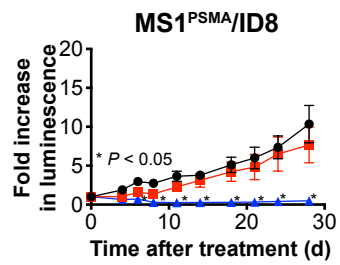
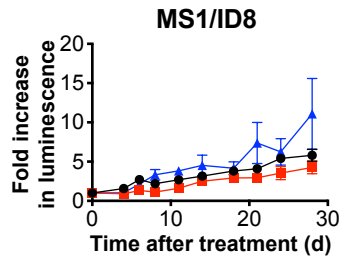
Supplementary Figure S4



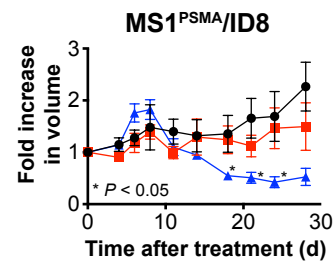
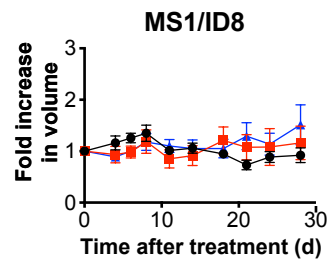
Supplementary Figure S5



B Endothelial cell luminescence



C Tumor volume



Supplementary Figure S6

