Tumor regression from G100 was associated with increased intratumoral T cell infiltration (P=0.006).

Analyses of Tumor Microenvironment

Clinical Outcome

Cohort A, Locoregional Disease n= 3:
- Received 3 doses of G100 alone with partial response (PR) of 28%.
- Patient 009 is included as a "non-Responder" for the purpose of this analysis and is not included in the "Responder" category because PD after 5.5 months in loco-regional MCC is not felt to be clinically meaningful.

Cohort B (metastatic, n= 7):
- 3 cycles G100 alone.
- 3 patients achieved a PR (43%), with 2 patients having no signs of disease after 6 months.
- Radiation therapy was given about 1 year before study entry.

Tumor regression from G100 was associated with increased intratumoral T cell infiltration (Pt 006).

Characteristics of MCC Patients

Baseline Age (years) 59.2 (64.0/67.0) 68.6 (67.0/67.0) 67.2 (67.0/67.0)
Gender
- Female 6 5 (50%)
- Male 10 5 (50%)
- Min, Max 55, 70 56, 82 55, 82

Tumor regression from G100 was associated with increased intratumoral T cell infiltration (Pt 006).

T cell infiltration

Tumor infiltration

Analysis of Expression of Immune-Related Genes

IFNγ-secreting CD4+ T cells reactive to MCPyV Large T antigen peptides were detected

Characteristics of MCC Patients

Baseline Age (years) 59.2 (64.0/67.0) 68.6 (67.0/67.0) 67.2 (67.0/67.0)
Gender
- Female 6 5 (50%)
- Male 10 5 (50%)
- Min, Max 55, 70 56, 82 55, 82

Differentially expressed genes in clinical responders vs. non-responders

**Differentially expressed genes in clinical responders vs. non-responders** indicate broad immune activation in the TME of these patients.

**V. SUMMARY**

G100 is a potent TLR4 agonist that can transform a "cold" TME to one which is "hot" and capable of activating CD8+ T cells and inducing antitumor immunity. 

- **It includes inflammatory changes in the TME by recruiting inflammatory monocytes and dendritic cells via the GLA-SE.** These cells in turn secrete both stimulatory and modulatory cytokines and decreasing suppressive cells such as M2 macrophages (Pollack et al., 2012) and regulatory T cells (Papadopoulos et al., 2008) while promoting tumor cell death (Bartlett et al., 2017). 

- **It is a well-tolerated non-viral agent that can be administered as an intratumorally acceptable agent in multiple clinical settings.**

**LIMITATIONS**

- **It can be challenging to achieve clinical benefit in patients with metastatic disease.**

- **There is a need for additional studies to further evaluate the efficacy and safety of G100 in different patient populations.**