Skin cancer is divided into three major types: squamous cell carcinoma, basal cell carcinoma, and melanoma. Although melanoma is not the most common of skin cancers, it causes the highest amounts of deaths, with 7,230 estimated for 2019 in the United States. Melanoma is at its most dangerous and aggressive stage once it has metastasized. Surgery and chemotherapy in combination with immunotherapy, has become the standard of care for patients with metastatic melanoma. Immunotherapies are designed to initiate or support anti-tumor immune responses by neutralizing immune-inhibitory pathways and may thus provide long-term protection from cancer-growth recurrence. However, only a fraction of melanoma patients respond positively to immunotherapies, suggesting that tumors have the ability to escape immune activation induced by these treatments. Studies with mice deficient for Interleukin-6 (IL-6) production propose that this cytokine can inhibit the efficacy of immunotherapies against blood cancers. Therefore, we are interested in studying the role of IL-6 signaling in the treatment of melanoma with immunotherapies. B16-F10 is a highly metastatic murine melanoma model that produces and secretes IL-6. We transplanted B16-F10 cells into wild type (WT) and IL-6 knock-out (KO) mice to examine if melanoma- or host-derived IL-6 secretion affects the immune response against melanoma. Results show that untreated WT mice experience higher melanoma-tumor burden than untreated IL-6 KO mice. These findings highlight a role for host-derived IL-6 in tumor progression. Further mice studies with IL-6 KO melanoma cells are underway to assess tumor response to treatment in the complete absence of IL-6.