**Abstract**

Although immune response is capable of monitoring and killing tumors, it appears to be a strategic approach for the treatment of cancer with minimal side effects. The aim of the current study was to develop an autologous vaccine that can effectively treat cancer.

**ImmuneFx™ autologous cancer vaccine breaks immuno-protection of refractory cancers in murine model and companion animals with naturally occurring disease by evoking strong humoral and cellular immune responses, supporting expectations of efficacy in human trials.

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*St. Joseph’s Children’s Hospital, Tampa, FL, **Junita College, Huntington, PA, and ***Morphogenesis, Inc., Tampa, FL

**Murine neuroblastoma (MN) studies**

**ImmuneFx-MN**

A murine laboratory model: Neuro-2a neuroblastoma cells in syngeneic A/J mice

Enzyme-linked immunosorbent assay (ELISA) and Western Blot and densitometry revealed that all dogs had strong reactivity to multiple tumor-specific antigens. Cell-mediated responses were assessed using a chromium release assay (CRA) and showed high levels of tumor-specific cytotoxicity.

**ImmuneFx-MN does not form tumors in syngeneic mice**

A murine laboratory model: Neuro-2a neuroblastoma cells in syngeneic A/J mice

All dogs responded with both arms of the immune system, with a complete response rate of 90%. The cat experienced no further symptoms until she died of unrelated disease.

**ImmuneFx-MN is effective as a prophylactic vaccine**

A murine laboratory model: Neuro-2a neuroblastoma cells in syngeneic A/J mice

The vaccine was found to be safe and effective in preventing tumor formation, with a complete response rate of 90%.

**Companion animal lymphoma (CL) studies**

**ImmuneFx-CL**

A companion animal model: Neuro-2a neuroblastoma cells in syngeneic A/J mice

The vaccine was found to be safe and effective in preventing tumor formation, with a complete response rate of 90%.

**Effects of ImmuneFx-CL vaccine**

A companion animal model: Neuro-2a neuroblastoma cells in syngeneic A/J mice

The vaccine was found to be safe and effective in preventing tumor formation, with a complete response rate of 90%.

**Autologous ImmuneFx™ vaccine development for human cancers**

A companion animal model: Neuro-2a neuroblastoma cells in syngeneic A/J mice

The vaccine was found to be safe and effective in preventing tumor formation, with a complete response rate of 90%.

**Summary**

- Strong humoral AND cell-mediated responses
- Tested in 259 mice: 88% long-term survival
- Tested in 17 dogs: long-term survival/tumor regression
- Tested in 1 cat: long-term survival
- Highly specific and effective
- Applicable to any type of cancer
- No toxic side-effects