**Value Proposition**
Toxic chemotherapies, the standard for treating most cancers, contribute to poor quality of life for patients. Treating patients with Wake Forest University’s therapeutic Angiotensin-(1-7) [Ang-(1-7)] is a safe and effective alternative that inhibits cancer cell growth with little or no toxicities and side effects. Ang-(1-7) has shown anti-cancer effects in breast, prostate, and lung cancers and sarcomas, demonstrating its potential for use in a wide range of clinical settings.

**Invention Summary**
Researchers at Wake Forest School of Medicine have developed novel methods for treating cancers and sarcomas using the seven amino-acid hormone, Ang-(1-7). The Wake Forest researchers have also discovered novel proprietary analogs superior to Ang-(1-7) in preclinical assessments of efficacy.

**Competitive Benefits**
- Ang-(1-7) specifically targets solely proliferating cells, i.e. cancer cells, thus minimizing side effects attributed to undesired targeting of healthy cells.
- Ang-(1-7) shows anti-cancer effects in many cancer types, including cancers of the lung, breast, prostate and sarcomas.
- Ang-(1-7) does not produce alterations in blood pressure, heart rate or wound healing when used for the treatment of cancer.
- Ang-(1-7) and its analogs appear to act at the MAS oncogenic receptor, in a novel mechanism to have shown translational validation.

**Application Fields**
- Treatment of sarcomas and lung, breast, prostate and connective tissue cancers
- May also be used to treat non-solid tumors

**Stage of Development**
- A successful phase II clinical trial of Ang-(1-7) for second or third line treatment of patients with metastatic or unresectable sarcomas is complete.
- Phase I Clinical Trials have been completed for the study of Ang-(1-7) in the treatment of solid tumors in human patients.
- Ang-(1-7) has demonstrated effective inhibition of cancer cell growth in vitro and tumor growth in mouse models.
- Assessment of the molecular mechanisms targeted by Ang-(1-7) to mediate its anti-cancer effects are currently ongoing.
- Inventors are pursuing an active development program for next generation Ang-(1-7) products and formulations, including new lead compounds with profiles superior to Ang-(1-7) in preclinical animal models.
- Access to these new analogs and the data will be provided under appropriate confidentiality obligations.

**Background (cont.)**
- Ang-(1-7) mediates inhibition of cancer cell growth both in vitro and in vivo and has been used in human cancer patients.

**Inventors**
- E. Ann Tallant, PhD, Hypertension & Vascular Research Center
- Patricia E. Gallagher, PhD, Hypertension & Vascular Research Center
- Carlos M. Ferrario, MD, Surgical Sciences

**Publications**

**Keywords**
- Angiotensin-(1-7)
- Breast cancer, lung cancer, prostate cancer, sarcoma
- Phase I Clinical Trials
- Non-toxic therapeutic
- MAS receptor

**Patent**
- US Patent No. 8,034,781
- US Patent No. 7,122,523
- US Patent No. 7,375,073

**Licensing Contact**
Michael Batalia
mbatalia@wakehealth.edu