Role of HER2 DNA-monoclonal Antibody in Ovarian Cancer

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INTRODUCTION

Ovarian Cancer—Frequent Yet Poor Prognosis

- 27K new cases/year (US)
- 1.3% of all new cancer cases
- 250K new cases/year (world)
- 14,080 deaths/year (US)
- 2.3% of all cancer deaths
- 5th leading cause of cancer-related death among women

METHODS AND RESULTS

HER2 as Ovarian Cancer Target

HER2 Expression in Primary Ovarian Tumors

HER2 dmAb Expresses/Binds in Vivo

HER2 dmAb Binds to HER2 in OVCAR3

Expression of dmAb in 293T cells

Preliminary Results With Four Nude Mice

HER2 is Overexpressed in Ovarian Cancer Cell Lines

HER2 is Overexpressed in Ovarian Cancer Tumor Samples

HER2 dmAb Expresses/Binds In Vivo

DISCUSSION

Conclusion

- HER2 is overexpressed in ovarian cancer tumor samples
- HER2 dmAB is expressed in vivo and in vitro
- HER2 dmAB binds to HER2 target
- HER2 dmAB significantly reduces tumor growth in vivo

Next Steps

- In vitro cytotoxicity
- Luciferase based
- Flow cytometry
- Test in vivo anti-Tumor Effect
- Test other tumor types with different HER2 expression levels

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