



SELECTED OPPORTUNITIES IN ONCOLOGY

Anti-neurotensin antibody for the treatment of non small cell lung cancer

(BIO07563, BIO14015, BIO14016 & BIO17665)

➤ **Target:** Neurotensin (NTS)

➤ **Application:** non small cell lung cancer (NSCLC)

➤ **Potential Product** :a proprietary neurotensin antibody (humanization of this antibody is ongoing)

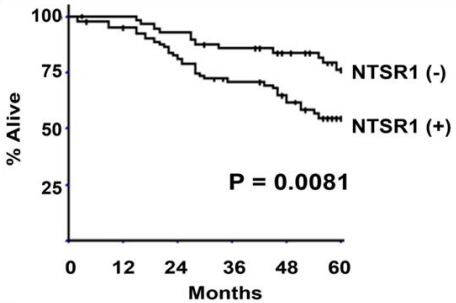
➤ **Rationale:**

- High expression of NTSR1 is associated with poor prognosis in NSCLC and worse sensitivity to platinum-base chemotherapy
- NTS antibody ameliorates cisplatin and SOC treatments in a mouse model of NSCLC
- NTS antibody decreases number and size of metastases in a mouse model of NSCLC
- NTS antibody increases weight and activity in mice
- NTS KO or NTSR1 KO have no overall abnormal phenotype under physiological conditions

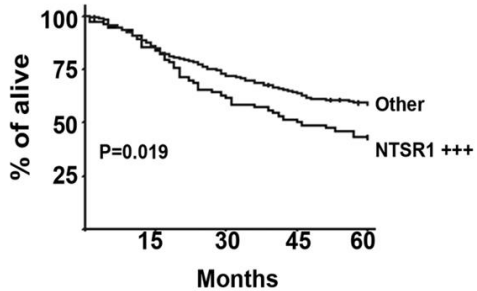
➤ **Patent Applications and publication :**

- Modulation of lung cancer cell plasticity and heterogeneity with the restoration of cisplatin sensitivity by neurotensin antibody Wu Z. et al. *Cancer Letters* 444 (2019) 147–161
- PCT/EP2009/054395: Methods for the treatment, the prognostic assessment and the staging of non-small cell lung cancer
- PCT/EP2015/062168 : Anti-neurotensin antibodies and the uses thereof
- PCT/EP2015/062079:: Anti-neurotensin long fragment antibodies and the uses thereof
- PCT/EP2019/073991 :Use of an inhibitor of NTSR1 activation or expression for preventing weight loss, muscle loss, and protein blood level decrease in subjects in need thereof

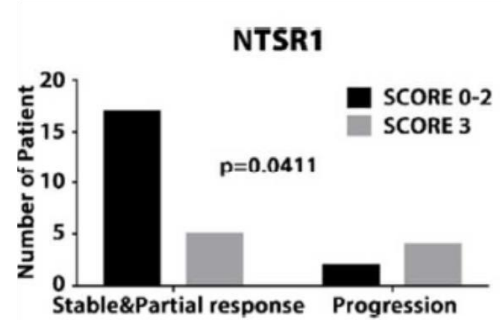
High expression of NTSR1 is associated with poor prognosis in NSCLC and worse sensitivity to platinum-base chemotherapy



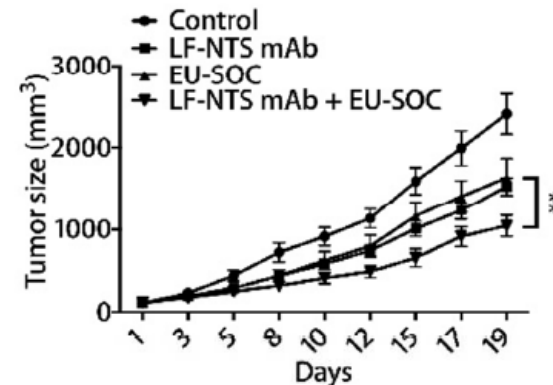
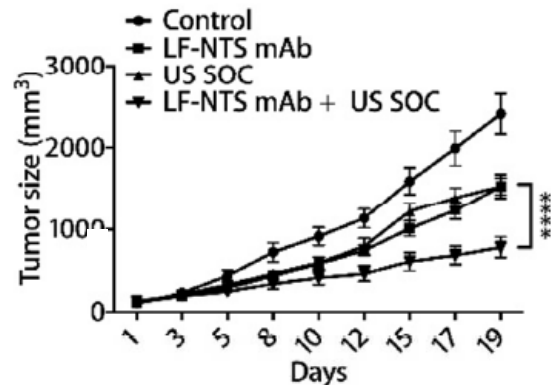
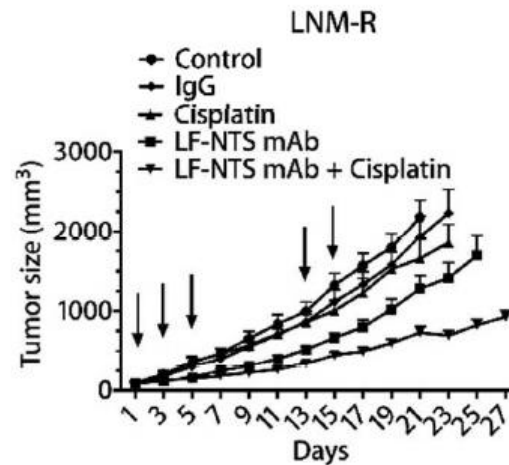
138 Stage I lung adenocarcinomas with no post surgery adjuvant or neo-adjuvant therapy



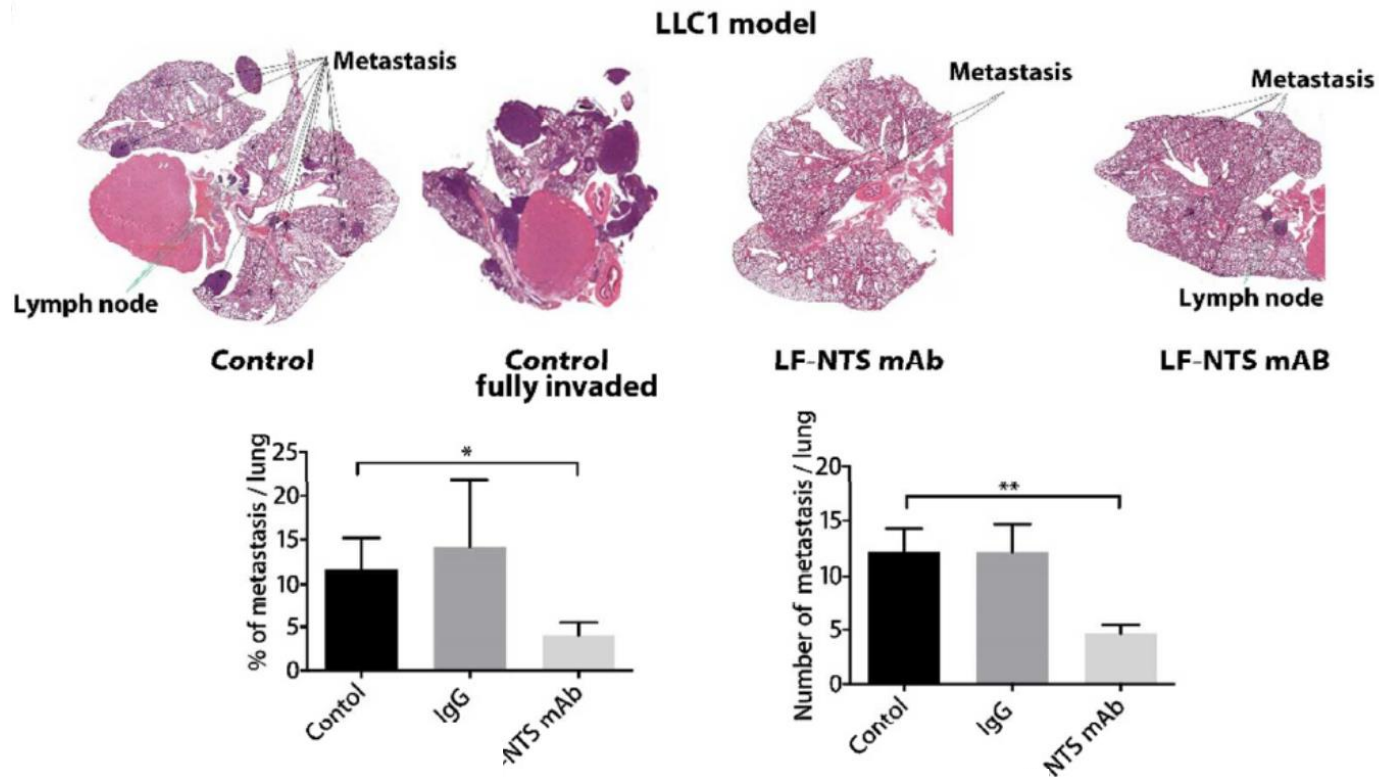
389 Stage I to Stage III lung adenocarcinomas



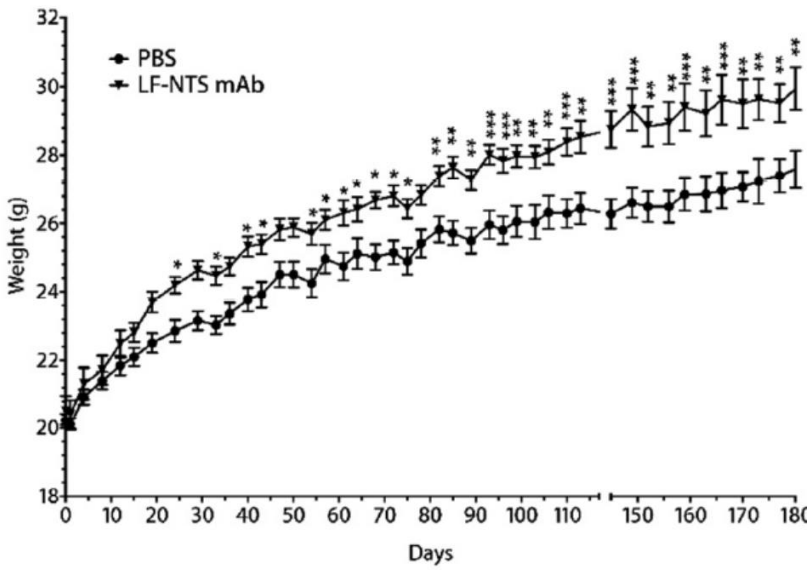
NTS antibody ameliorates cisplatin and SOC treatments in vivo



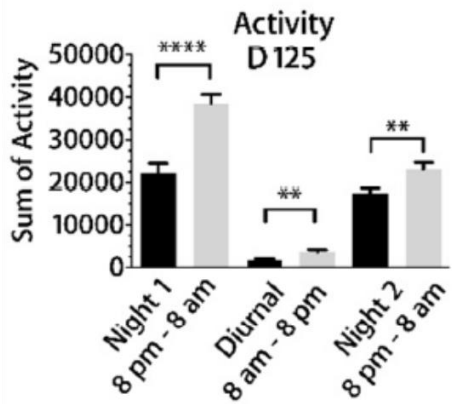
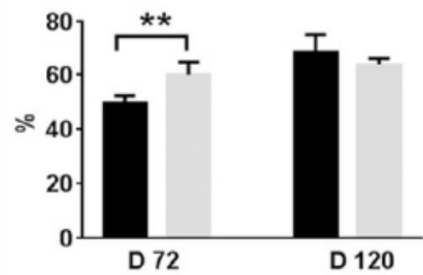
NTS antibody decreases number and size of metastases

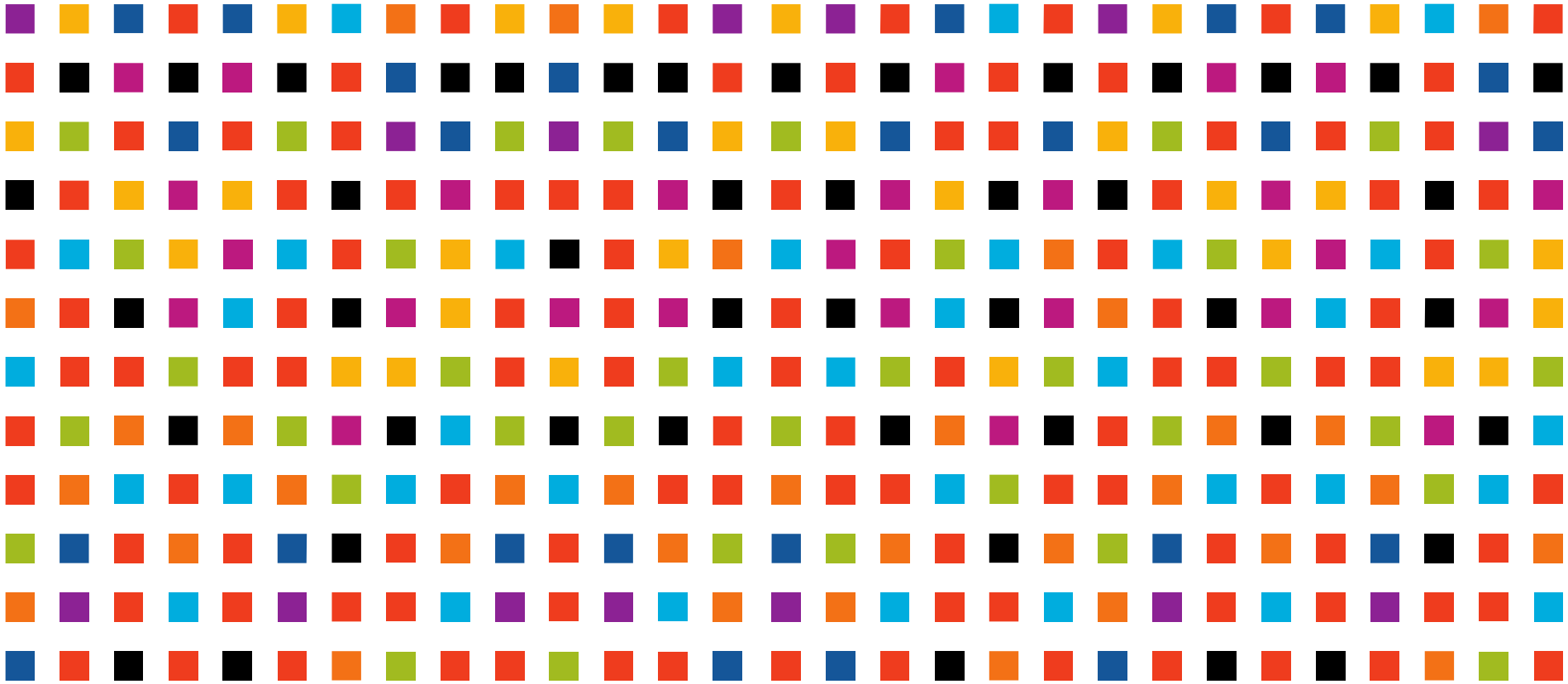


NTS antibody increases weight and activity



Ratio Albumin/ Protein in plasma





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