Performance of HRN™ nude and NCr nude Mice in the Orthotopic PC-3M-Luc Prostate Tumor Model

Taconic

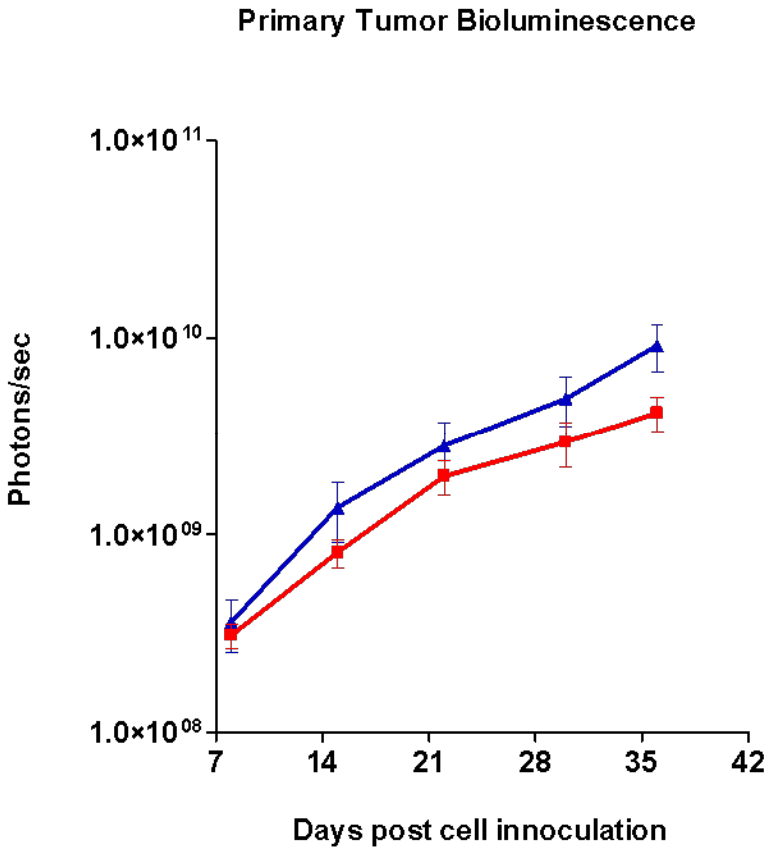
Smart Solutions To Improve Human Health

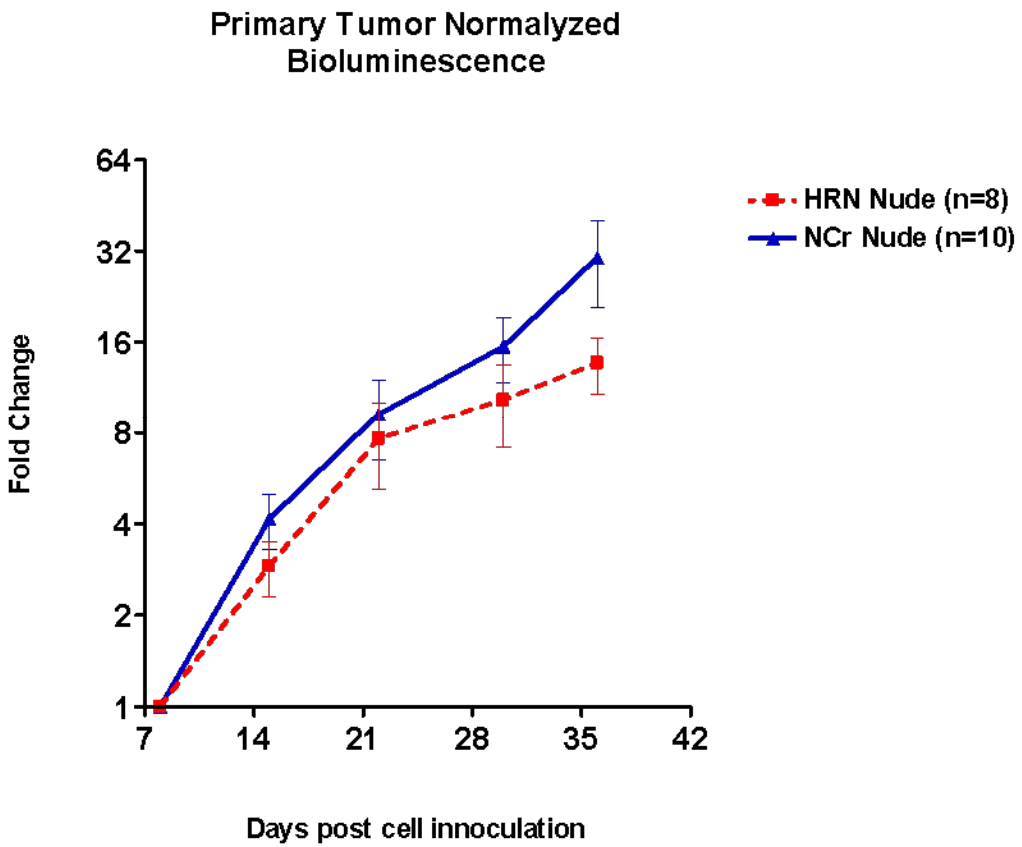
R&D Study Report

Study Outline

- **1x10^6 PC-3M-luc cells were inoculated orthotopically into 8 HRN™ nude and 10 NCr nude mice**
- ***In vivo* bioluminescence imaging (BLI) was performed on day 8, 15, 22, 30, and 36 following the cell inoculation**
- **At the end of study,**
  - Orthotopic tumors were dissected and weighed
  - Major metastatic tissues, including lung, liver, diaphragm, and GI-LN were dissected
  - *Ex vivo* imaging was performed on primary tumors and tissues collected
- ***In vivo and ex vivo* bioluminescent images were converted to digital data**
- **The digital data from *in vivo* BLI and longitudinal animal body weights were presented as kinetic plot graphs and analyzed with two-way ANOVA**
- **The digital tissue BLI data were presented as dot graphs and analyzed with one way ANOVA**

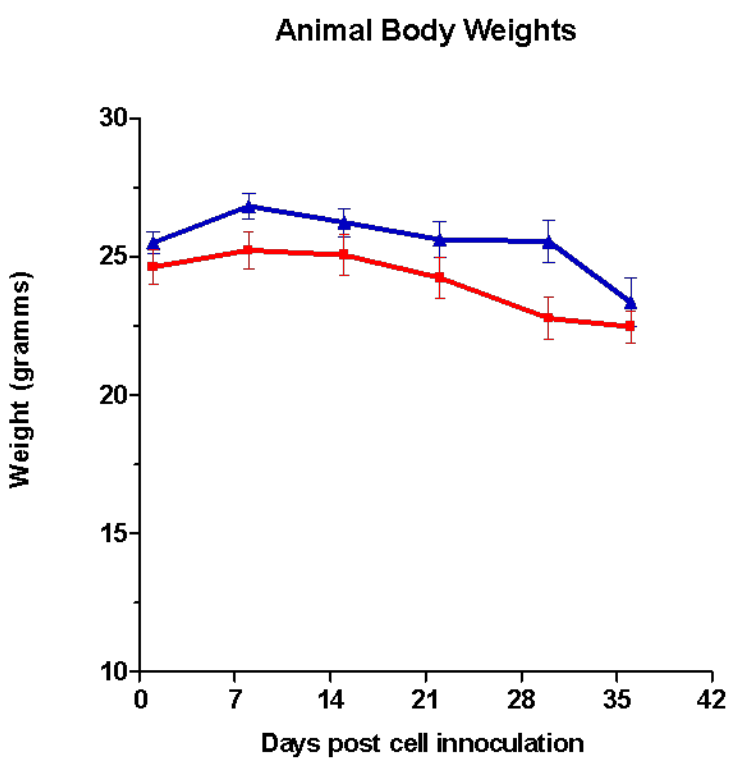
Orthotopic Tumor Growth Kinetics

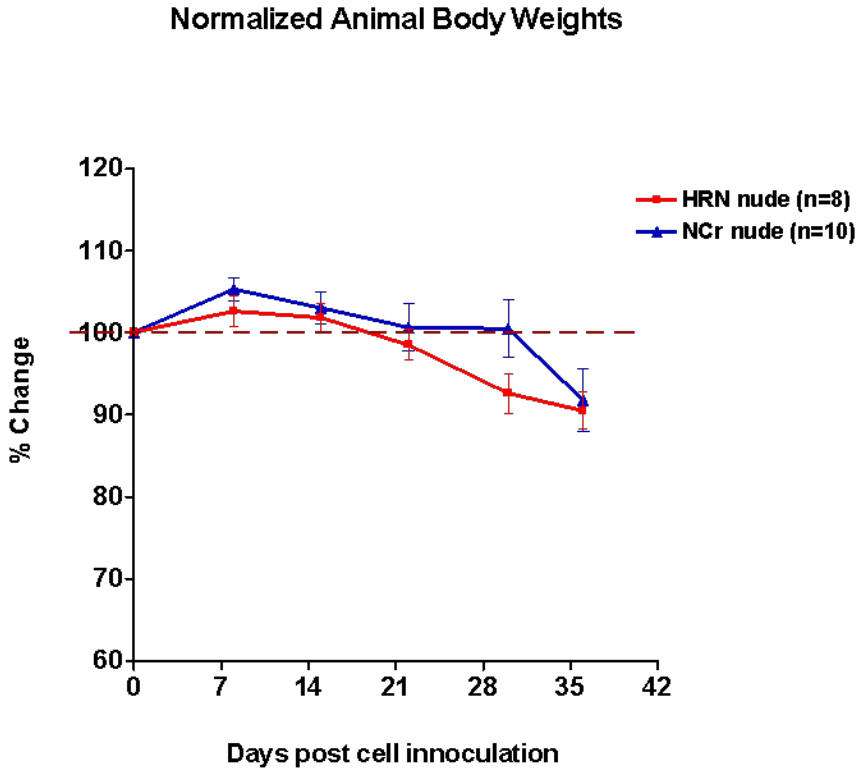




Two Way ANOVA
Time: P<0.0001
Interaction: P=0.607
Between groups: P=0.653

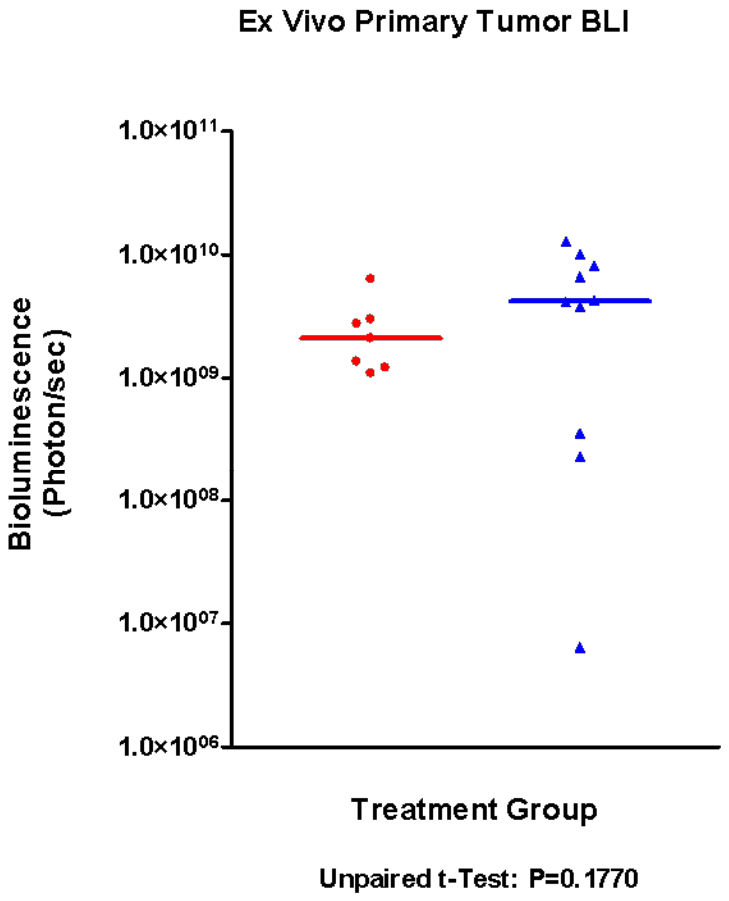
Longitudinal Animal Body Weights

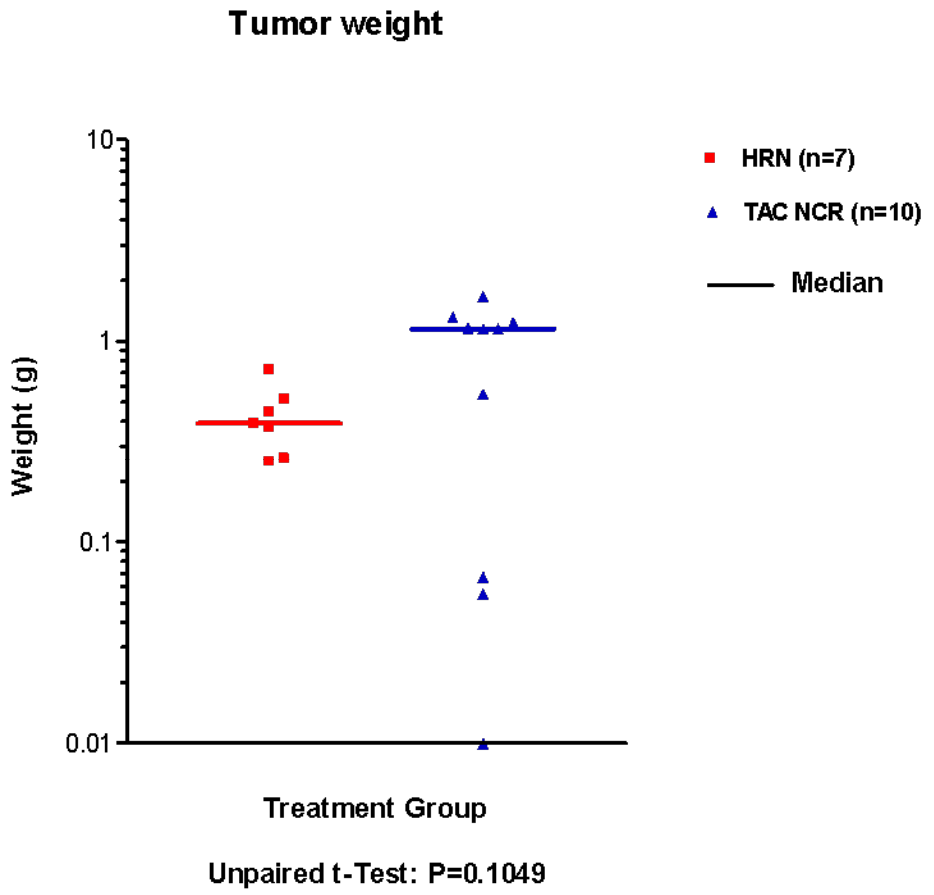




Two Way ANOVA
Time: P<0.0001
Group Interaction: P=0.522
Between groups: P=0.442

Ex Vivo Primary Orthotopic Tumor Biolominescence and Tumor Weight





Data Summary

- **HRN™ nude mice were compared with NCr nude mice with respect to supporting human tumor growth in a human prostate orthotopic tumor model**
  - Tumor take rate: 100% in HRN™ nude vs 90% in NCr nude mice
  - Orthotopic tumor growth rate through out the study was similar
    - Two way ANOVA : P=0.653

Conclusion: HRN™ nude mice can be used for xenograft tumor model studies