Treatment of neuroblastoma (NB), the second most common solid tumor in childhood, is successful in less than half of patients with high-risk disease. The 5 year survival for metastatic disease is still less than 60% and, consequently, novel therapeutic approaches are needed. Campath-1H and its analog octreotide (OPT-11), hold great promise in the treatment of NB patients, particularly in patients with advanced and metastatic disease. In this study, we investigated the synergistic activity of Campath-1H and EZN-2208, a novel pegylated SN-38 drug conjugate, in preclinical models of human NB. The study was conducted in collaboration with the Italian Foundation for Neuroblastoma Research (IFN). We further assessed the anti-angiogenic activity of EZN-2208 in vitro and in vivo experiments, MTD (Figure 2,C-D) and in long term survival, EZN-2208-treated, GI-LI-N-bearing mice were 100% cured after 180 days post cell implantation.

In conclusion, EZN-2208 is of great interest as a new, promising anti-neuroblastoma agent, to be administered alone and/or in combination with traditional chemotherapeutics. In an ongoing Phase I trial, EZN-2208 was well tolerated on a 3-week schedule, with neutropenia as dose limiting toxicity.