

P008 Development of TrkAd5 (REN1820) as a soluble NGF receptor therapeutic agent

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Increased levels of nerve growth factor (NGF) have been linked to the initiation and persistence of many disease states associated with inflammatory pain and asthma. The design, expression, refolding and purification of the monomeric (non strand-swapped) form of the binding domain (d5) of the NGF receptor, TrkA, is described here. We have also shown that recombinant TrkAd5 (also called REN1820) binds NGF with picomolar affinity. TrkAd5 has been characterized using a variety of biophysical and biochemical assays, and is shown to be stable in blood and urine. TrkAd5 is demonstrated here to be effective in amelioration of symptoms of inflammatory pain and asthma. It is concluded that TrkAd5 will prove effective as a palliative in both acute and chronic conditions mediated by NGF, and we propose its role in vivo as a novel therapeutic.