Supplementary Figure 4. The hypothesized model on spatial regulation of β-actin local synthesis in the growth cone. Local BDNF is proposed to act through Ca$^{2+}$ to cause Src phosphorylation to promote local β-actin translation, leading to growth cone attraction. When PKA is inhibited by KT5720, local BDNF acts through Ca$^{2+}$ to inhibit Src locally, which could lead to a decrease of β-actin translation and result in a reverse asymmetry of β-actin and growth cone repulsion. In both cases, the β-actin asymmetry aligns with the direction of growth cone steering.