

Follow-up study to Pulvinar3.1

**Title : “Attentional modulation in pulvinar and V1”**

Abstract: In a previous experiment we found a strong activation in the pulvinar nucleus of the thalamus reflecting attentional focusing in visual search. We also observed an unexpected coactivation of the primary visual cortex (V1) when focusing required enhanced spatial scrutiny to eliminate distractor information. We hypothesized that this V1-coactivation arises as a top-down modulatory influence from the pulvinar to permit distractor attenuation at a fine spatial scale. The proposed follow-up experiment will directly address the functional role of the of the V1 activation. We will use a parametric variation of the spatial density of information interfering from distractors (a variation of the density of interfering color features). We predict that increasing feature interference at smaller target-distractor separations will enhance the BOLD response dramatically.