**Supplemental Figure 1. Case report.** A-D: MRI scans (T1 with gadolinium, axial section). A) MRI at baseline, presence of edema and a mass effect without midline shift. B) 5 months after baseline, stable disease (SD) as compared to baseline. C) 9 months after baseline, decrease of both, contrast-enhancing lesion and edema (PR). D) 37 months after baseline, only small residual contrast-enhancing lesion (PR).

45-year old female patient initially diagnosed with GBM WHO Grade IV (November 2002). Previous treatment had included tumor resection, radiation and chemotherapy (3 cycles of vincristine plus CCNU). After the tumor recurrence, the patient was randomized to 10 µM trabekersen and received 11 treatment cycles. The patient did not receive any additional anti-tumor therapy during or after the study and was still alive 62 months after the start of therapy (status March 2009).

**Supplemental Figure 2. Case report.** A-D: MRI scans (T1 with gadolinium, axial section). A) MRI at baseline, no midline shift. B) 12 months after baseline, stable disease (SD) as compared to baseline. C) 42 months after baseline, tumor regression (PR). D) 48 months after baseline, complete response (CR).

40-year old male patient diagnosed with recurrent AA WHO Grade III (July 2001). Previous treatment had included tumor resection, radiation and chemotherapy (5 cycles of PCV). After the first recurrence, the patient was randomized to 10 µM trabekersen and received 11 treatment cycles. Despite a transient initial increase of the enhancing lesion, the patient was in good clinical condition and able to work. There was no deterioration of neurological status and the patient did not receive anti-edematous therapy. The patient did not receive any additional anti-tumor therapy during or after the study and was still alive 66 months after the start of therapy (status March 2009).