

Appendix 1: Clinical, Radiologic and Pathologic Details on Patients with Specific Mutations				
Age/Sex	Radiographic classification and tumor site	Pathology and Molecular	Treatment	Survival Outcome
Pt #1 56 y/o male	Diffuse, Non-Enhancing Pontine Tumor	AA, IDH1 mut (R132H)	STB, RT UNK dose,	Died 12 months from diagnosis
Pt #2 40 y/o male	Diffuse, Enhancing, Medullary Tumor	DA, IDH1 mut (R132H)	STB, No RT, treated with upfront TMZ	Alive and stable at 14 months
Pt #3 57 y/o male	Diffuse, Enhancing Pontine Tumor	GB, IDH1 mut (R132H)*	Biopsy NOS, 5400 cGy Conc plus Adj TMZ	Alive and stable at 7 months
Pt #4 34 y/o male	Diffuse, Enhancing Medullary Tumor	GB, PIK3CA mut (H1047R)	STB, 4500 cGy RT, TMZ plus Bev at tumor recurrence	Alive and stable at 40 months
Pt #5 56 y/o female	Diffuse, Enhancing Medullary Tumor	AA, PIK3CA mut (H1047R)	STR, 5000 cGy RT	Alive and stable at 163 months
Pt #6 36 y/o female**	Diffuse, Enhancing, Medullary Tumor	GS, BRAF mut (V600E)	STR, 3060 cGy RT**, Conc TMZ, Bev at recurrence	Alive and stable at 36 months

Abbreviations: *AA* anaplastic astrocytoma, *IDH1* isocitrate dehydrogenase 1, *mut* mutation, *DA* diffuse astrocytoma, *GB* glioblastoma, *GS* gliosarcoma, *STB* stereotactic biopsy, *RT* radiotherapy, *UNK* unknown, *TMZ* temozolomide, *Conc* concurrent, *Adj* adjuvant, *Bev* bevacizumab

*IDH1 (R132H) mutation found on both immunohistochemistry and Sequenom™ panel testing.

**Patient #6 has a history of suspected segmental NF1 and received radiotherapy for a cervical pilocytic astrocytoma 24 years prior to diagnosis of a gliosarcoma