**Supplementary Information**

***A new generation somatostatin-dopamine analogue exerts potent antitumoral actions on pituitary neuroendocrine tumor cells***

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**Supplementary Figure 1:** ACTH-secreting adenomas. (A) Dose-response experiment of cell viability in response to BIM-065 (10-13 to 10-9 M; n=1), measured by Alamar-blue reduction. (B) Comparison of dose-response experiment between BIM-065 and octreotide on cell viability (10-11 to 10-7 M; n=1), measured by Alamar-blue reduction. Data are expressed as percent of vehicle-treated controls (set at 100%) within experiment. In cases where less than three experiment were carried out, no significance tests were performed.

**Supplementary Figure 2:** GH-secreting adenomas. Direct effect of BIM-065, octreotide and pasireotide on GH secretion (24h treatment; n=2), determined by commercial ELISA kit. Data are expressed as percent of vehicle-treated controls (set at 100%) within experiment. Values represent the mean ± SEM. In cases where less than three experiment were carried out, no significance tests were performed.

**Supplementary Figure 3:** Non-functioning pituitary adenomas. Dose-response experiment of cell viability in response to BIM-065 (10-9 to 10-6 M; n=3), measured by Alamar-blue reduction. Data are expressed as percent of vehicle-treated controls (set at 100%) within experiment. Values represent the mean ± SEM.

**Supplementary Figure 4:** PRL-secreting adenomas. (A) Expression profile of SST2, SST5, D2 (total and long isoforms), SST5TMD4 and SST5TMD5 of two different PRLomas. (B) Dose-response experiment of cell viability in response to BIM-065 (10-9 to 10-6 M; n=1), measured by Alamar-blue reduction. (C) Effect of BIM-065 and cabergoline on cell viability (10-7 M; 24 – 72h treatment) in two different PRLomas, measured by Alamar-blue reduction. (D) Measurement of PRL secretion (24h treatment) (n=1), determined by commercial ELISA kit. (E) mRNA expression levels of key genes in response to BIM-065 were measured by qPCR and adjusted by normalization factor (NF) (n=1). (F) Representative profile of [Ca2+]i kinetics assay in response to BIM-065 (n=1). Data are expressed as percent of vehicle-treated controls (set at 100%) within experiment. Values represent the mean ± SEM. In cases where less than three experiment were carried out, no significance tests were performed.

**Supplementary Figure 5:** Expression profile of tumor markers (PTTG1, CDKN1B and CDK2) in response to BIM-065 in different PitNETs, measured by qPCR and adjusted by normalization factor (NF). (A) ACTH-secreting PitNETs (n=4); (B) GH-secreting PitNETs (n=3); (C) Non-functioning pituitary adenomas (n=3) (D) PRL-secreting PitNETs (n=1). Data are expressed as percent of vehicle-treated controls (set at 100%) within experiment. Values represent the mean ± SEM. Asterisks (\* p<0.05) indicate statistically significant differences. In cases where less than three experiment were carried out, no significance tests were performed.