

**CohBar Discovers Novel Peptide Inhibitors
of CXCR4, a Key Regulator of Tumor
Growth and Metastasis**

*Anti-tumor effects demonstrated in vivo in
preclinical melanoma immuno-oncology model*

January 2020

Forward Looking Statements

This news release contains forward-looking statements which are not historical facts within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and other future conditions. In some cases you can identify these statements by forward-looking words such as “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “should,” “would,” “project,” “plan,” “expect,” “goal,” “seek,” “future,” “likely” or the negative or plural of these words or similar expressions. Examples of such forward-looking statements including but not limited to statements regarding the ability of mitochondrial peptide analogs to reduce tumor growth in mice; anticipated outcomes of research and clinical trials for our mitochondria based therapeutic (MBT) candidates; expectations regarding the growth of MBTs as a significant future class of drug products; and statements regarding anticipated therapeutic properties and potential of our mitochondrial peptide analogs and MBTs. You are cautioned that such statements are not guarantees of future performance and that actual results or developments may differ materially from those set forth in these forward-looking statements. Factors that could cause actual results to differ materially from these forward-looking statements include: our ability to successfully advance drug discovery and development programs, including the delay or termination of ongoing clinical trials; our possible inability to mitigate the prevalence and/or persistence of the injection site reactions, receipt of unfavorable feedback from regulators regarding the safety or tolerability of CB4211 or the possibility of other developments affecting the viability of CB4211 as a clinical candidate or its commercial potential; results that are different from earlier data results including less favorable than and that may not support further clinical development; our ability to raise additional capital when necessary to continue our operations; our ability to recruit and retain key management and scientific personnel; and our ability to establish and maintain partnerships with corporate and industry partners. Additional assumptions, risks and uncertainties are described in detail in our registration statements, reports and other filings with the Securities and Exchange Commission and applicable Canadian securities regulators, which are available on our website, and at www.sec.gov or www.sedar.com.

You are cautioned that such statements are not guarantees of future performance and that our actual results may differ materially from those set forth in the forward-looking statements. The forward-looking statements and other information contained in this news release are made as of the date hereof and CohBar does not undertake any obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws. Nothing herein shall constitute an offer to sell or the solicitation of an offer to buy any securities.

CXC Chemokine Receptor Type 4 (CXCR4)

- Key chemokine receptor involved in tumor growth, invasion, angiogenesis, metastasis, and resistance to therapy
- Also regulates the homing and retention of hematopoietic stem cells and malignant cells in the bone marrow
- Overexpressed in 75% of human tumors - high levels correlate with aggressive metastasis and negative prognosis
- Inhibition of CXCR4 mobilizes immune cells, enhances the effects of chemotherapy and immunotherapy in various cancers, and reduces the development of metastatic tumors by blocking the ability of tumor cells to evade immune surveillance
- Strategies to block CXCR4 signaling could lead to promising new cancer therapeutics
- Inhibition of CXCR4 also has potential for stem cell mobilization and treatment of orphan indications where CXCR4 is dysregulated

CohBar MBT5 Analogs: Novel Peptide Inhibitors of CXCR4, a Key Regulator of Tumor Growth and Metastasis

Potent and Selective Inhibition of CXCR4 Demonstrated

- In broad range cell-based assays of receptor interactions, novel peptide analogs of a mitochondrially encoded peptide (MBT5) showed selective inhibition of one receptor (CXCR4) with no agonist activity
- Highly potent inhibition of CXCR4 (IC50 in low nM range) was confirmed in cell-based assays
- Potency of some analogs exceeded that of approved drug plerixafor/AMD3100 (IC50 68 nM)

In vivo Efficacy Demonstrated in B16F10 Melanoma Immuno-oncology Model

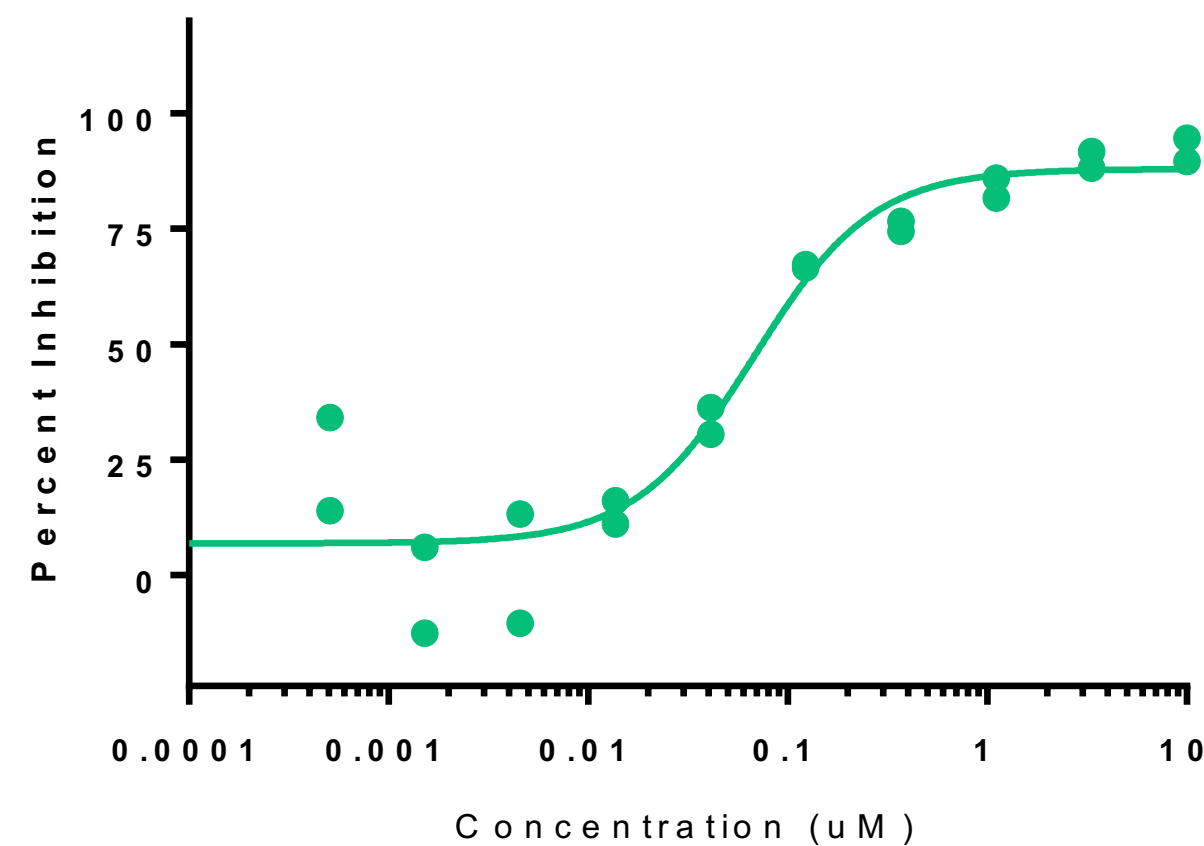
- The B16F10 mouse model is a preclinical model of aggressive melanoma that is difficult to treat
- B16F10 tumors are resistant to treatment with the checkpoint inhibitor anti-PD-1 antibody
- MBT5 Analog 1 in combination with temozolomide (TMZ) reduced mean tumor volume by 61% vs 38% for TMZ alone (P<0.01)

Evaluation of this new peptide family is ongoing in additional cancer models, with the goal of identifying an optimized drug candidate

MBT5 Analogs are Potent Antagonists of CXCR4 Receptor

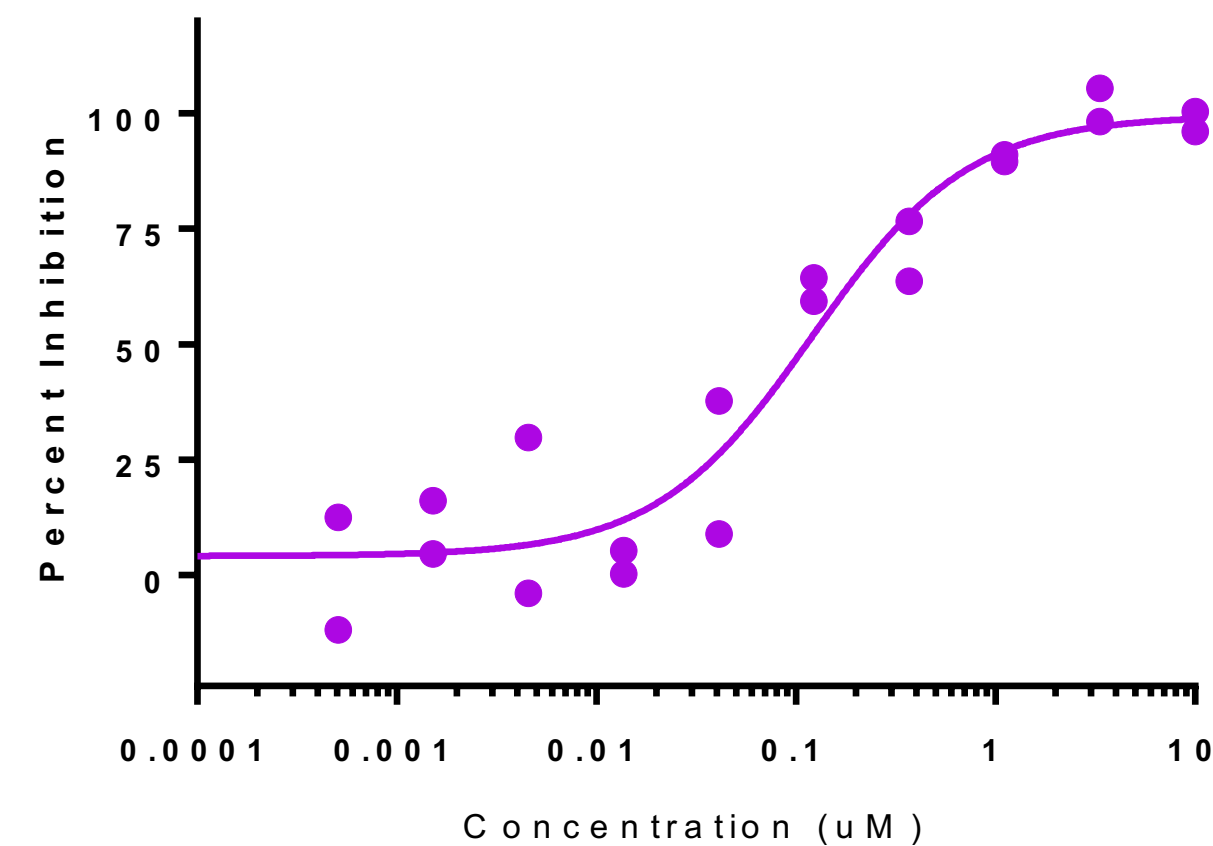
In Vitro Inhibition of CXCR4 Receptor Signaling in a Cell-Based Assay

Plerixafor/AMD3100



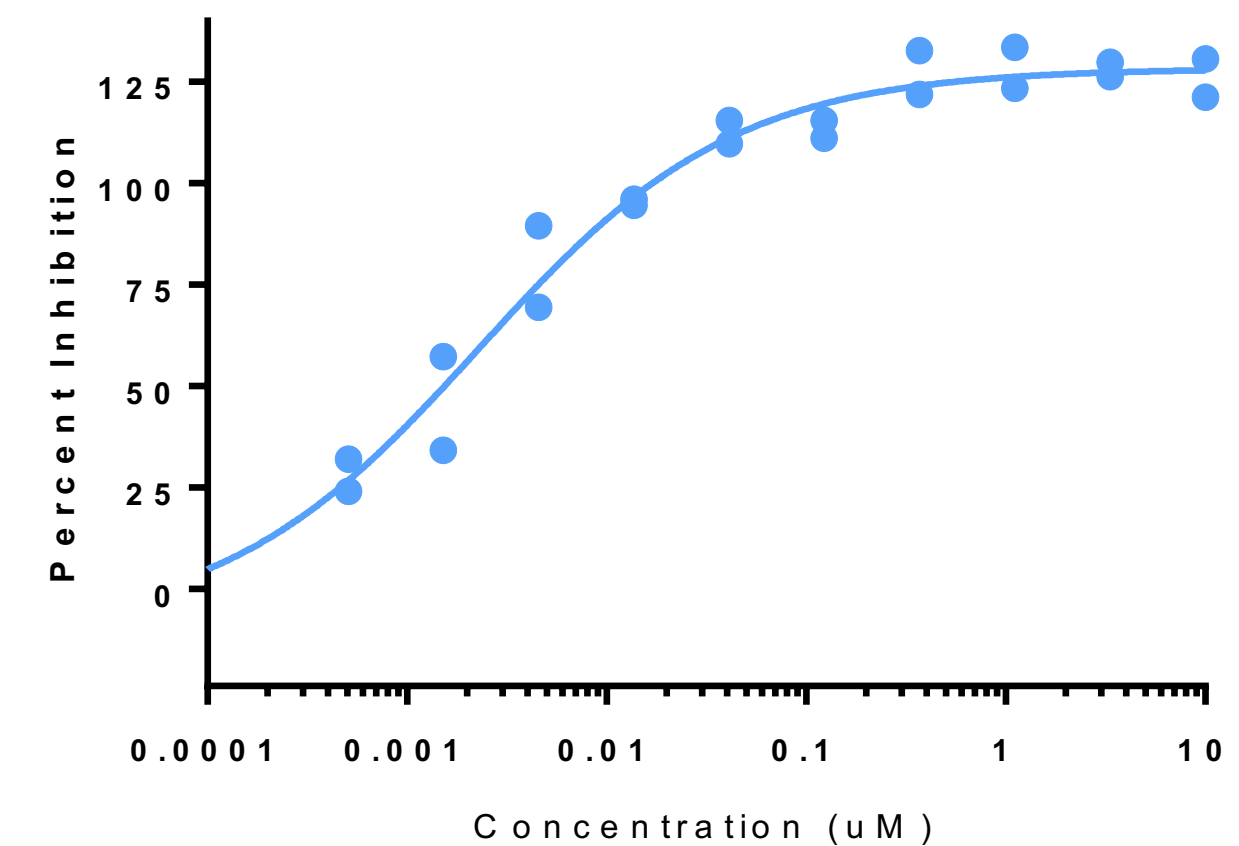
IC50 = 68 nM

MBT5 Analog 1



IC50 = 121 nM

MBT5 Analog 2

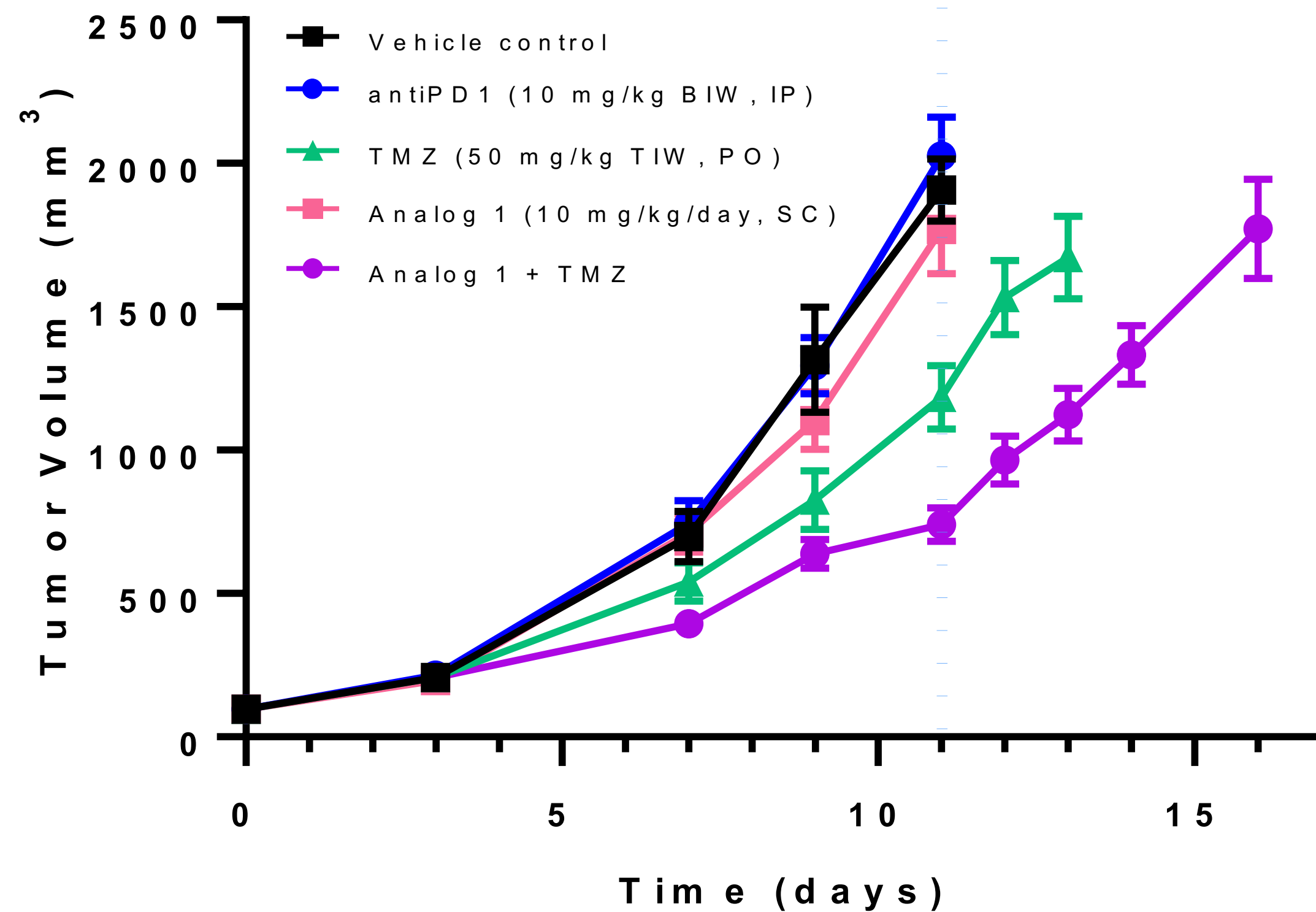


IC50 = 2.3 nM

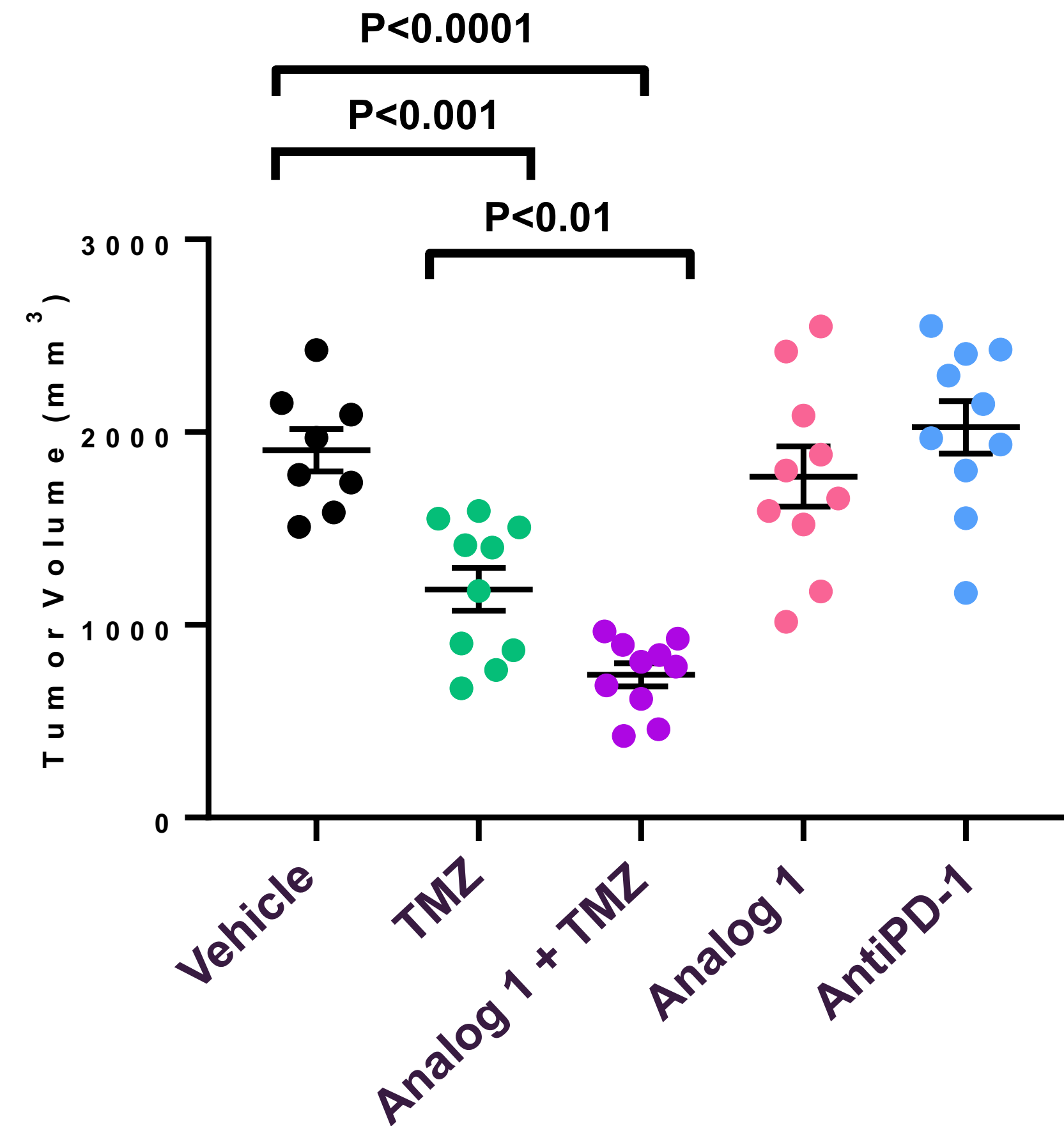
Source: CohBar preliminary data on file (Eurofins)

MBT5 Analog 1 in Combination with Temozolomide (TMZ) Reduced Tumor Volume in B16F10 Mouse Melanoma Model by 61%

Tumor Growth (Mean \pm SEM, N = 8 to 10)



Individual Tumor Volumes at Day 11

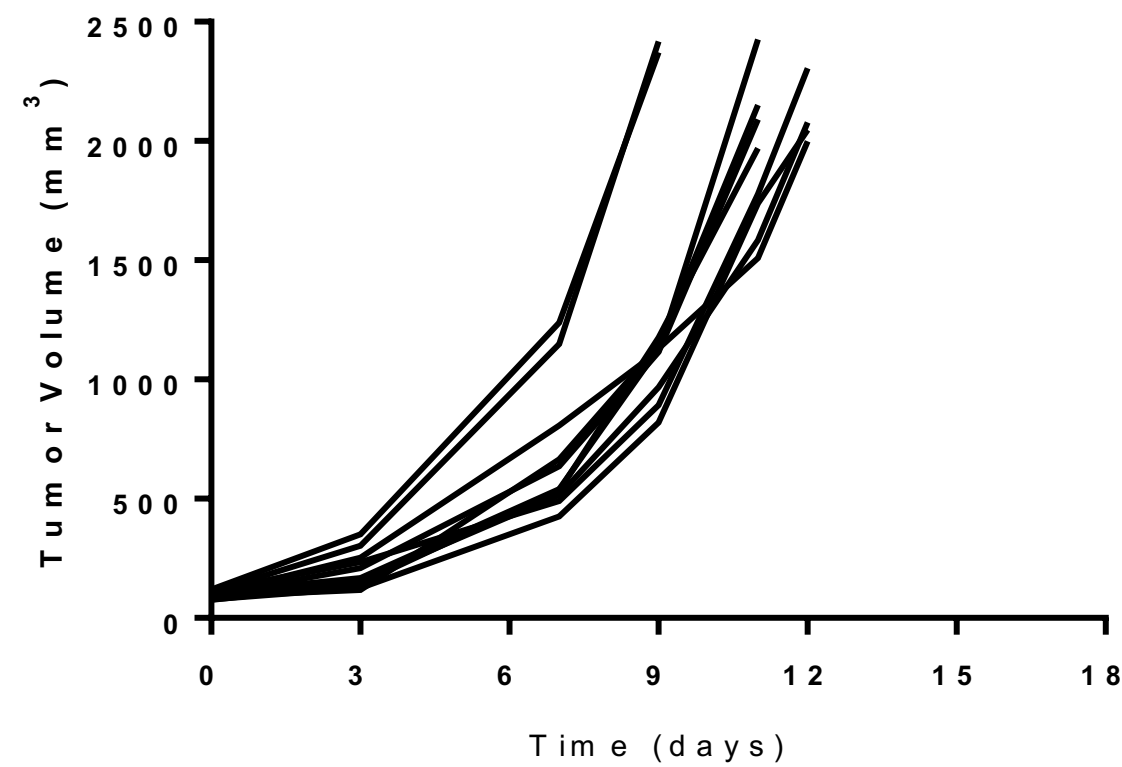


Source: CohBar preliminary data on file (HD Biosciences)

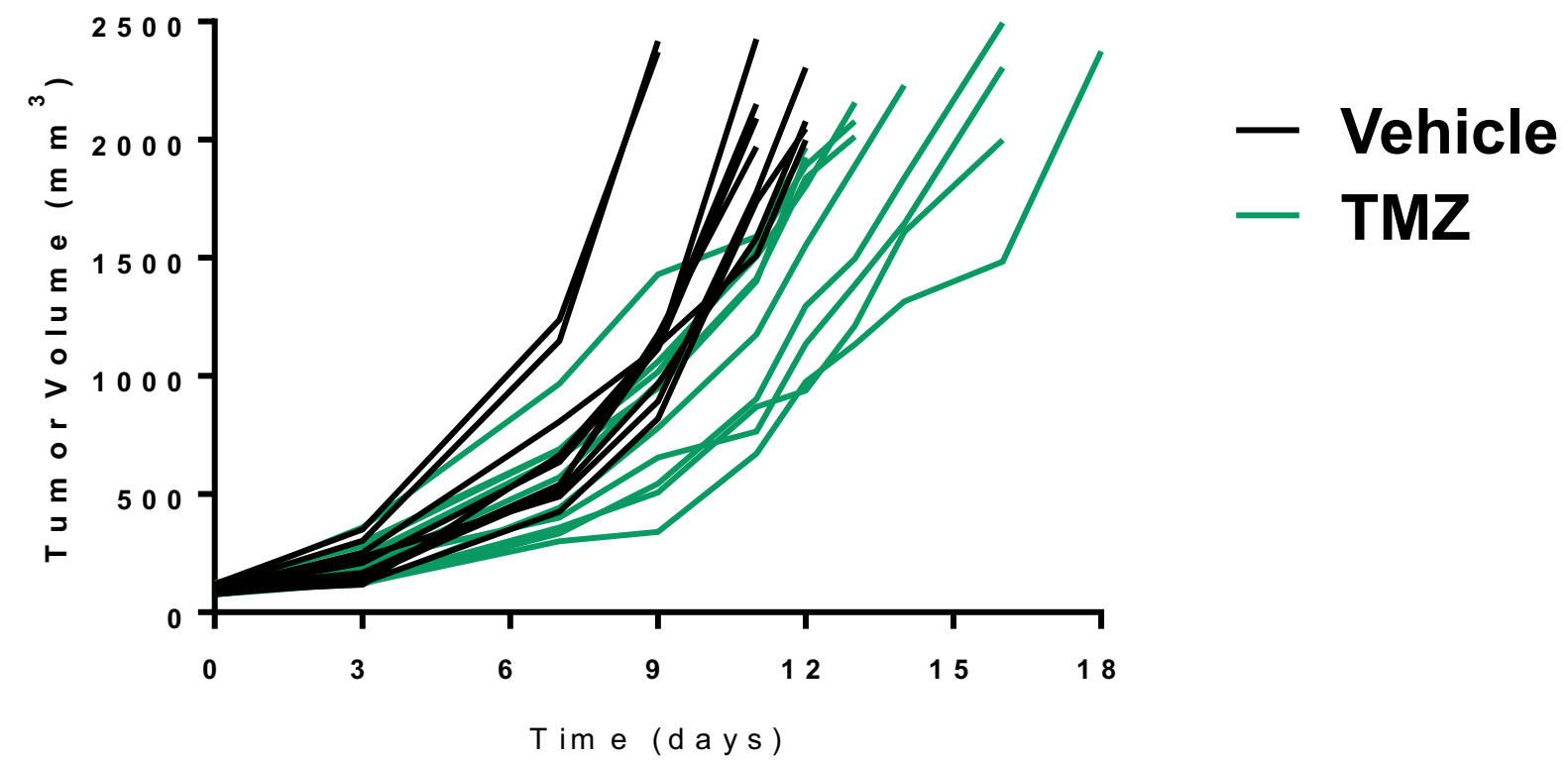
MBT5 Analog 1 in Combination with Temozolomide (TMZ) Reduced Tumor Growth in B16F10 Syngeneic Mouse Melanoma Model

Individual Tumor Growth Curves over 18 Days

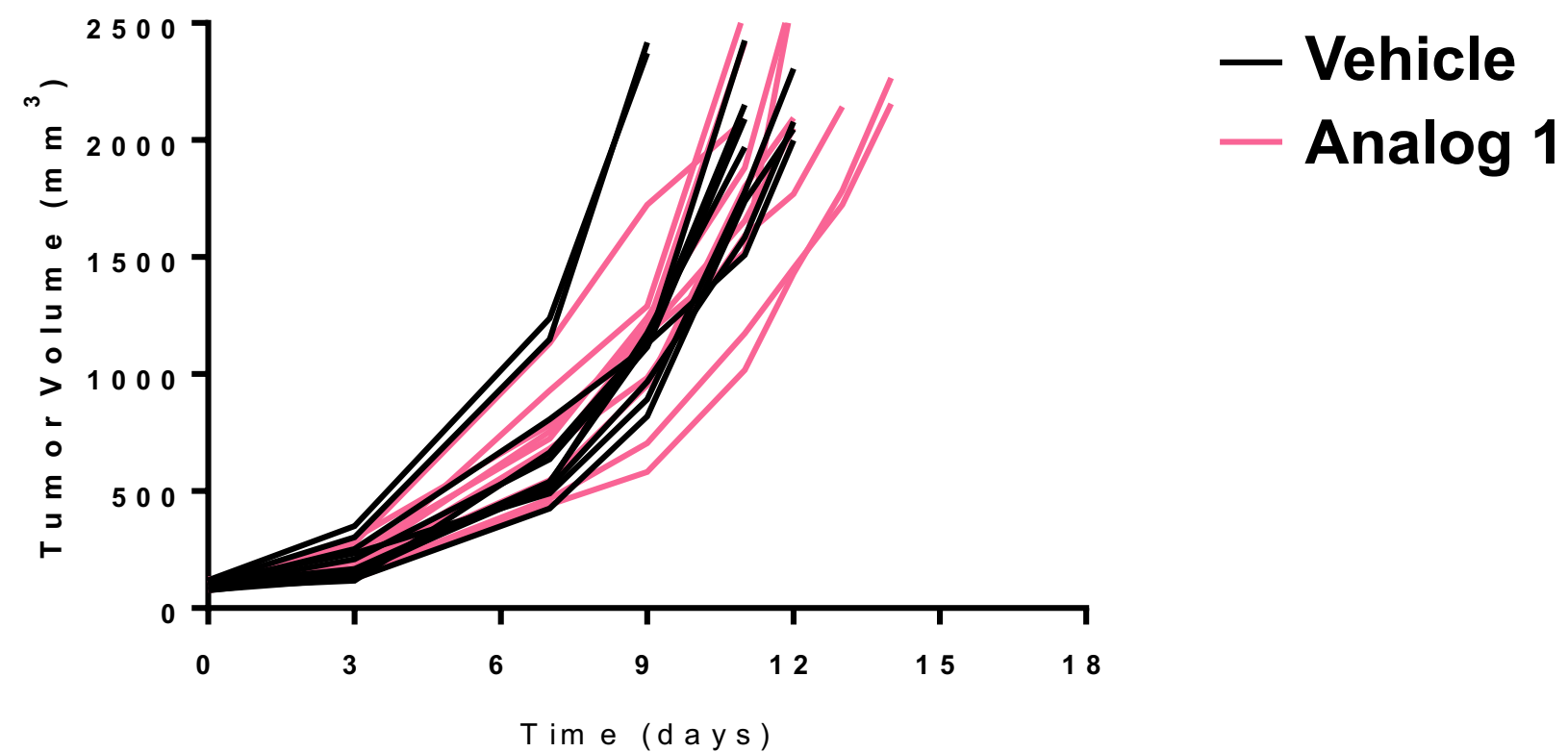
Vehicle Control



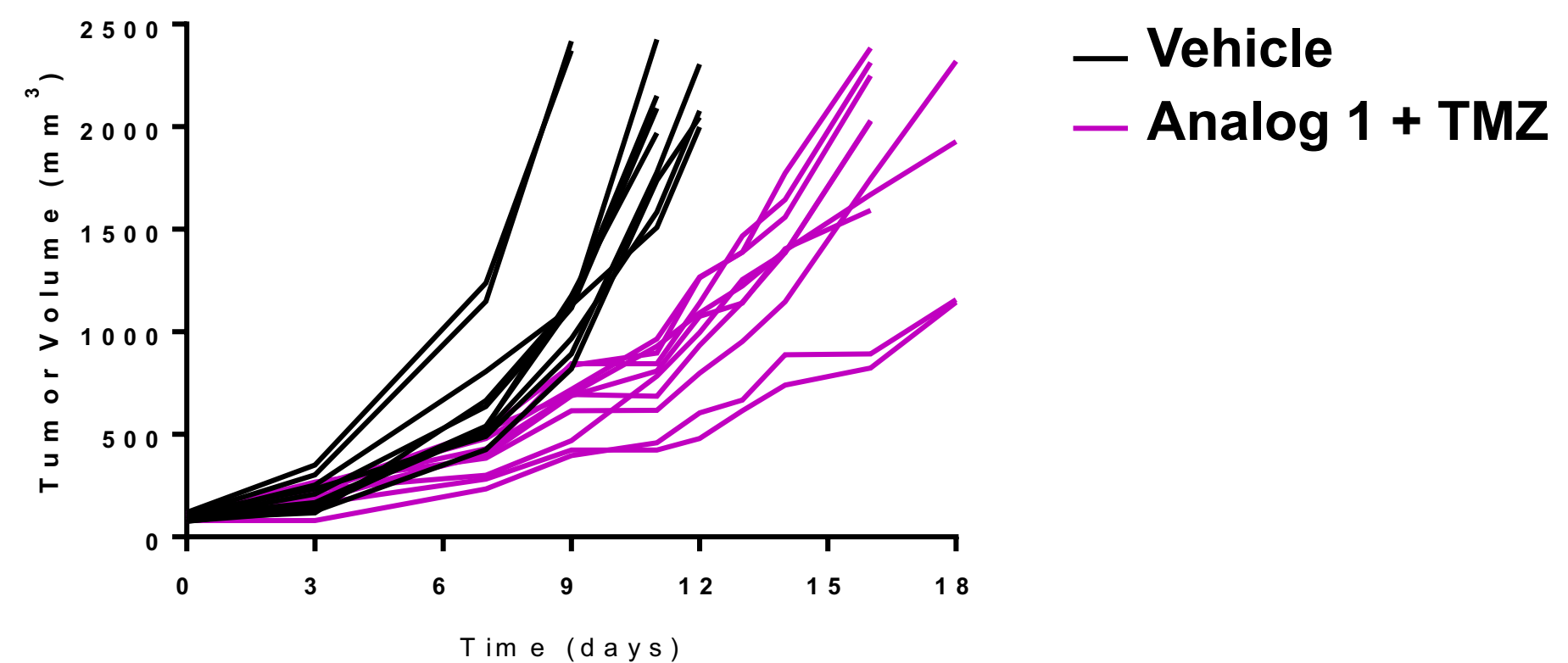
TMZ vs Vehicle



Analog 1 vs Vehicle



Analog 1 + TMZ vs Vehicle



Source: CohBar preliminary data on file (HD Biosciences)