**Supplementary Information**

Supplemental Table1: Assessment in Animal Models by Outcome of In Vitro Assessment

|  |  |  |
| --- | --- | --- |
| Outcome of In Vitro Assessment | Animal Assessment | |
|  | No | Yes |
| Statistically significant and/or ≥5-fold difference | 3 | 8 |
| Neither Statistically significant nor ≥5-fold difference | 2 | 1 |
| Total | 5 | 9\* |

\*Studies with no comparator excluded from analysis; Fisher’s exact test 2-tail p=0.51

Supplemental Table 2: Assessment of Oncology Classification by Genetic Evidence for Drug Target

|  |  |  |
| --- | --- | --- |
| Therapeutic Classification | Genetic Support for Drug Target | |
|  | No | Yes |
| Oncology | 8 | 9 |
| Non Oncology (genetic plus other) | 15 | 6 |

Fisher’s exact test 2-tail p=0.19.