**Supplementary materials**

To calculate the doubling time, we used the following formula, taking into consideration that during the time course of the experiment, an unknown percentage of cells died, and others did not proliferate, both in control and transduced cultures.

Doubling time = [ ***T*** × (ln2)] / [ ln (***Xe*** / ***Xb***)]
where ***T*** = time in any units

Experiment 1

We seeded ***Xb*** cells; the time course experiment lasted 18 days; and we counted

 ***Xe*** cells at the end of the experiment.

Control

***Xb*** = 300,000
    ***T*** = 18 days
    ***Xe*** = 2.10 × 106

**Transduced**

 ***Xb*** = 300,000
    ***T*** = 18 days
    ***Xe*** = 3.57× 106

Experiment 2

Control

 ***Xb*** = 300,000
    ***T*** = 18 days
    ***Xe*** = 1.80× 106

**Transduced**

 ***Xb*** = 300,000
    ***T*** = 18 days
    ***Xe*** = 2.90× 106

The calculation shows that the doubling time for the transduced culture in experiment 1 was shortened to 5.04 days instead of 6.41 days (22%). For the second experiment, the doubling time was shortened to 5.58 days from 7.26 days (23.1%).