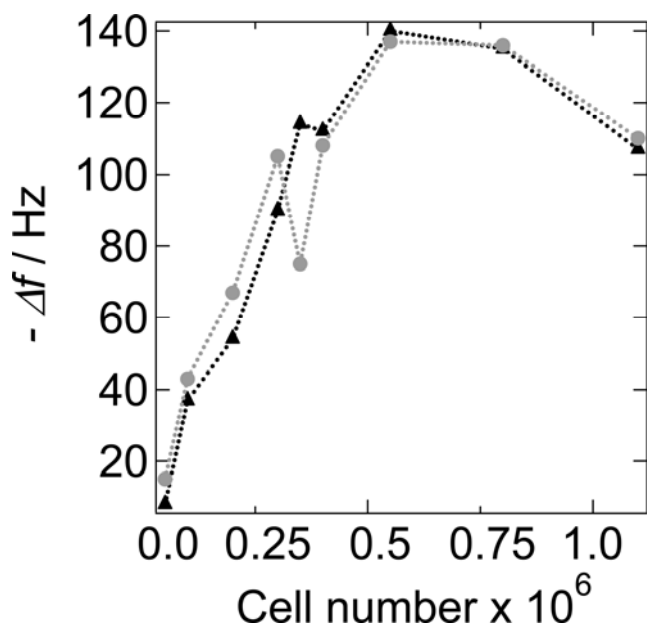


## Supplementary information

### Dynamics of human cancer cell lines monitored by electrical and acoustic fluctuation noise analysis

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10 **Fig. S1** Inoculum size vs. absolute frequency shift diagram;  $-\Delta f_{total}$  (grey) is shown in relation to  $-\Delta f_{start}$  (black): Under  
corresponding low load situations up to  $6-7 \times 10^5$  cells initial  
inoculum), synchronized cells show a biphasic frequency shift,  
15 with a first frequency decrease  $\Delta f_{start}$  usually being slightly  
smaller than the overall frequency shift  $-\Delta f_{total}$ . We find a  
gaussian distribution of  $-\Delta f$  for higher cell numbers than needed  
for confluency due to fast medium consumption.