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Quantifying functional phenotypes in human pluripotent stem cell derived cardiomyocytes for disease modelling and drug discovery

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1. Optical assessment of cardiac contraction can be correlated directly with force of contraction – at least *in vitro* and after calibration. *This thesis*
2. Simultaneous measurement of voltage, calcium and contraction in stem cell derived cardiomyocytes can be exploited to gain mechanistic insight into affected contractile pathways during drug screening. *This thesis*
3. Human stem cell derived cardiomyocytes can outperform isolated rabbit cardiomyocytes in drug response studies. *This thesis*
4. Hydrophobicity nor weight are valid indicators for predicting the absorption of molecules by PDMS. *This thesis*
5. Human stem cell derived cardiomyocytes are becoming an adult tool for studying human heart response to drugs and disease *in vitro*.
Saleem et al. (2020). Stem Cell Reports
6. Maturation is not a matter of time.
Ronaldson-Bouchard et al. (2019). Nature
7. The key to tissue engineering is the trade-off between manipulation of the microenvironment and relying on the self-assembly of cells.
Feinberg et al. (2007). Science
8. Proper control of all organ-specific cell types is necessary to fully recapitulate an organ.
Giacomelli et al. (2017). Development
9. Biology is no rocket science. It would be a lot easier if it was.
Any engineer working in biology
10. Zodra je gaat meten, ga je de wereld vergeten. *Awee Prins (2018)*
Iets kwantificeren maakt het niet direct relevant.
11. Wie zoekt, vindt. Maar niet altijd wat hij zoekt. *Paul Biegel (1967)*
Het is belangrijk open te staan voor toeval, ook in de wetenschap.
12. Je moet hard werken om lui te kunnen zijn. *Christine Mummery (2016)*
Stilzitten is eigenlijk geen optie.