Supporting Information

Series-Connected Flexible Biobatteries for Higher-Voltage Electrical Skin Patches

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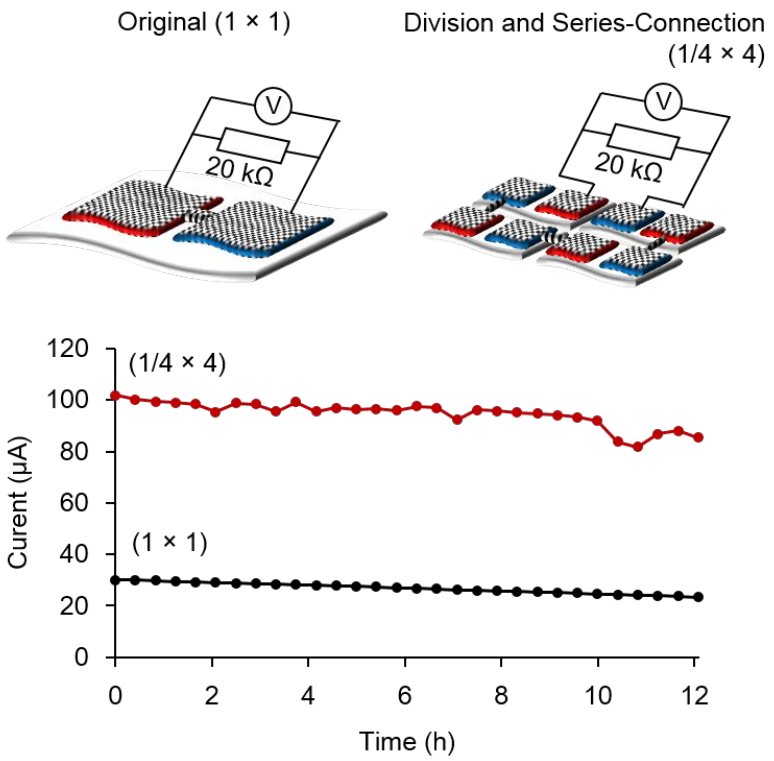


Figure S1. Stability of the biobattery. Both single original battery and the series-connected four quarter batteries connected with 20 kΩ load resistance (mimicking skin resistance) generated power for 12 hours with maintaining 80% output, which was sufficient durability for disposable skin patch application.

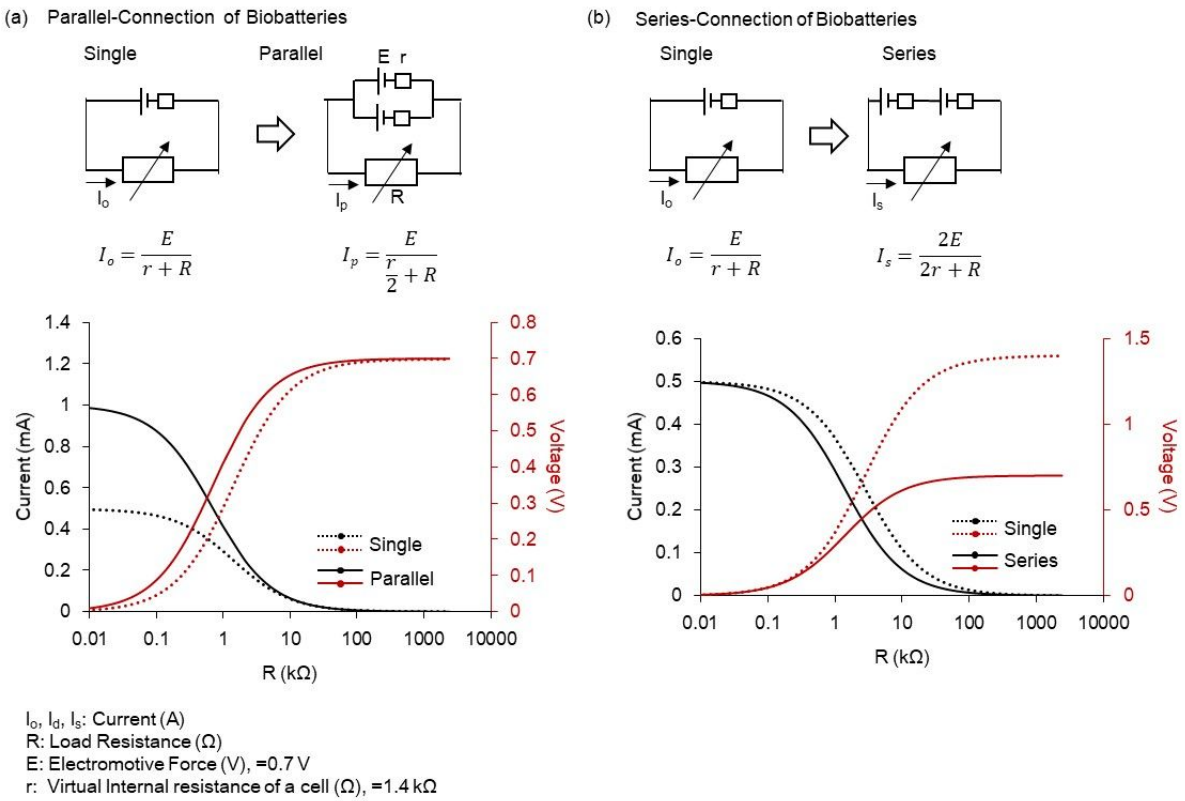


Figure S2. Equivalent circuit models and theoretical performance of (a) a single cell and parallel cells, and (b) a single cell and series-connected cells. The data fitted well to the experimental results in Figure 3.

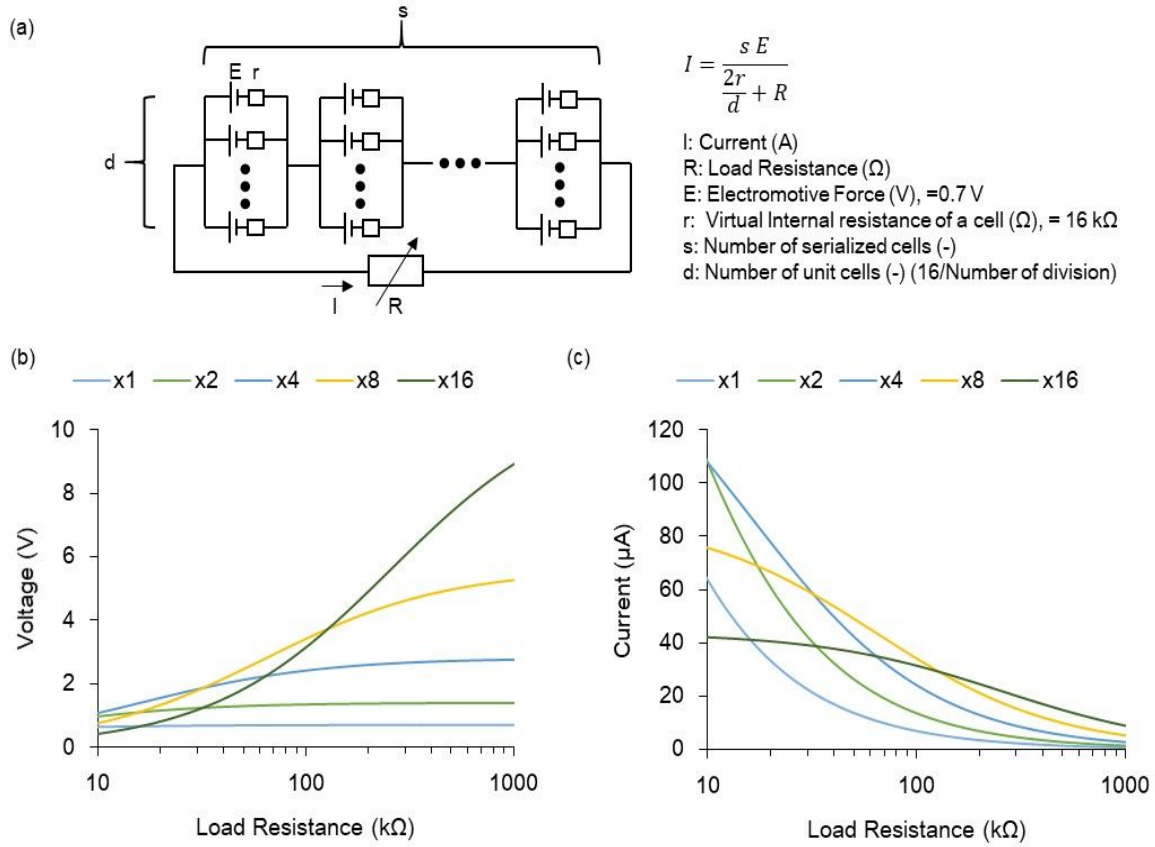
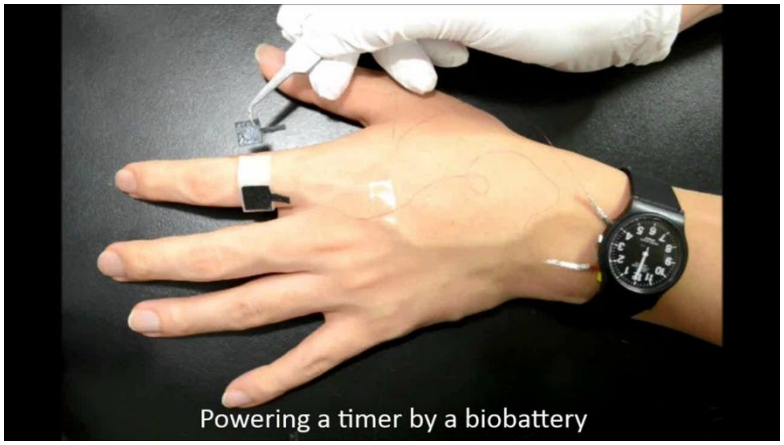


Figure S3. (a) Equivalent circuit model of the series-connected divided biobatteries. (b) The simulated cell voltage for various number of divisions (1/1 ~ 1/16). (c) The simulated cell current for various number of divisions (1/1 ~ 1/16).



Movie S1. Demonstration of the powering of a wrist watch by the series-connected divided biobatteries.