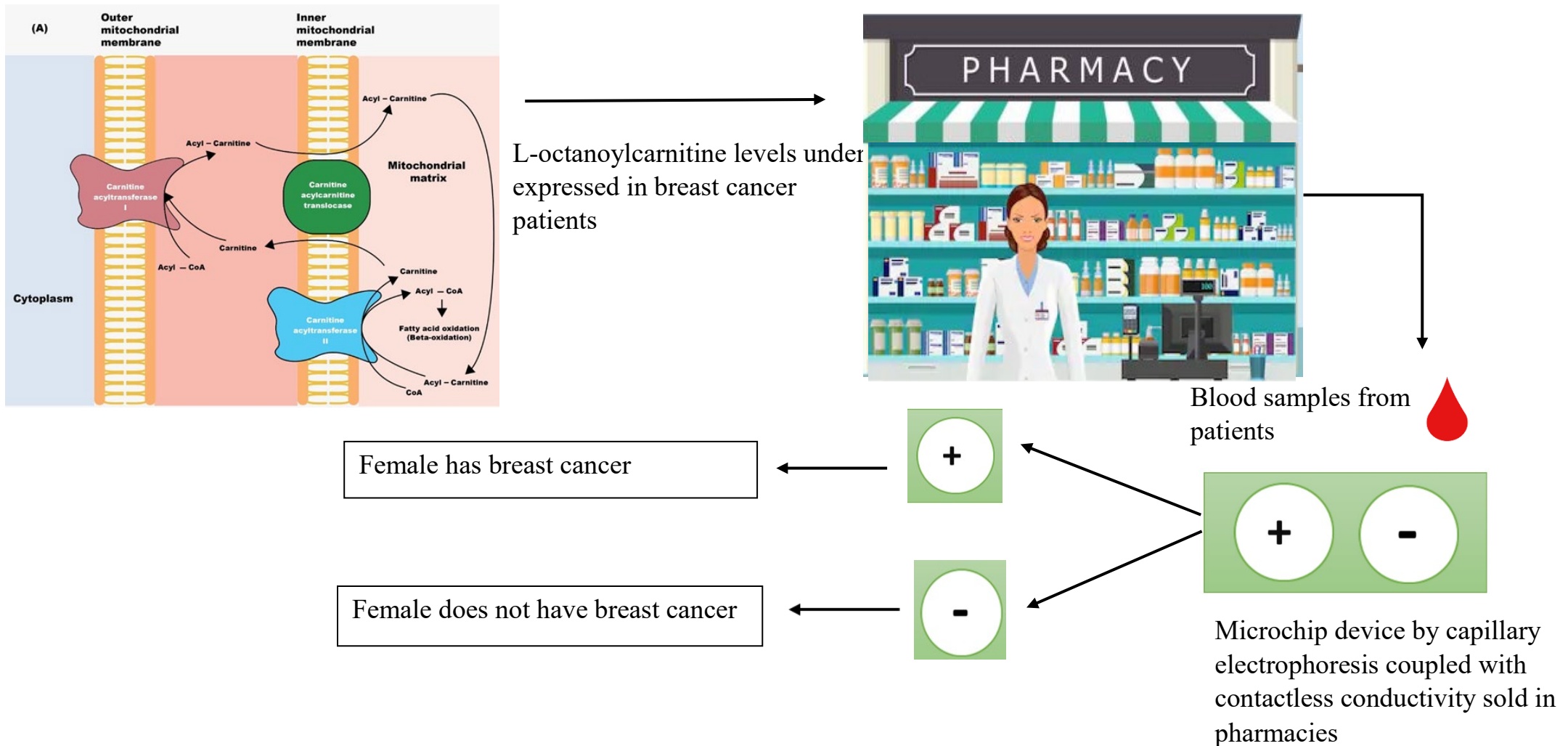


Graphical Abstract



- The probability of l-octanoylcarnitine under expression shows 100% positive predictive value in breast cancer patients.
- We designed a device incorporating capillary electrophoresis coupled with contactless conductivity detection. This device will measure the levels of l-octanoylcarnitine using blood samples from the patients at the pharmacy setting. Hence, this will encourage more females for to screen for breast cancer and enhance the therapeutic outcome and survival rates.