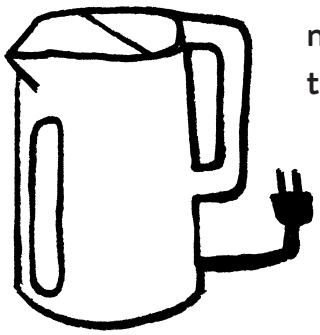
THE OFFICIAL BIONONYMOUS GUIDE TO

EXTRACT your DNA

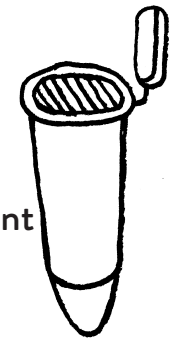
MATERIALS

electric kettle + shrink wrap or parafilm



measuring tool*

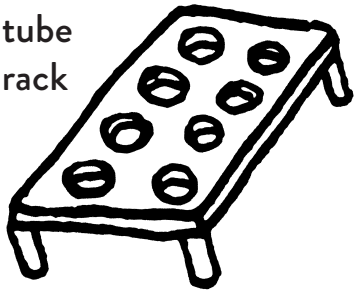
1.5 ml microfuge tubes + permanent marker



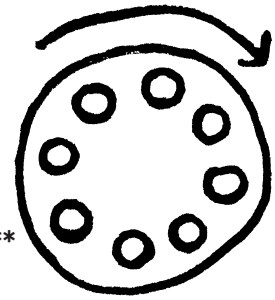
.9% saline solution

10% Chelex solution (100 µl per person)

tube rack



1.5ml centrifuge**



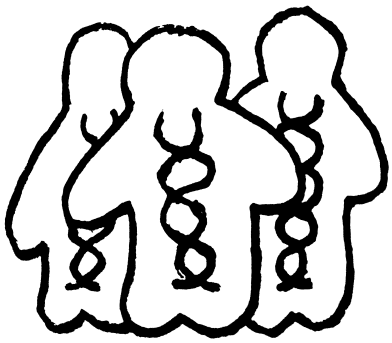
paper cup (1 per person)

micropipet

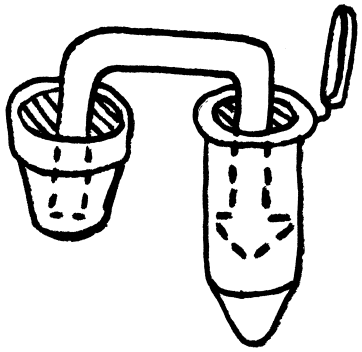
*TIP: You need to measure quantities of 30uL, 100uL, 1mL & 10mL
many inexpensive disposable measuring options are sold here:
http://www.affwebshop.com/funnels-16-5mm-to-55mm-beakers-pipettes/
**DIY your own centrifuge! http://www.thingiverse.com/thing:1483

STEPS

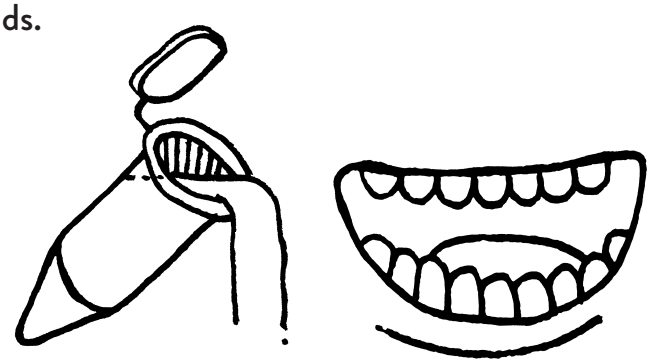
1. Gather a group of friends/allies. The more friends, the more sources of DNA, and the more biononymous you will be!



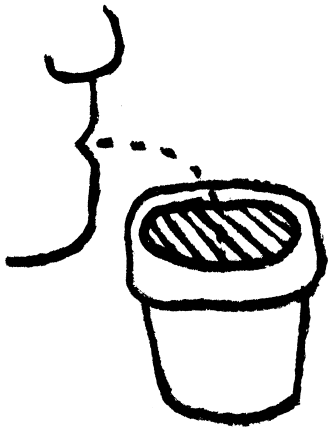
2. Put 10mL saline solution per person into individual paper cups. Put 100uL per person of chelex solution into microcentrifuge tubes.



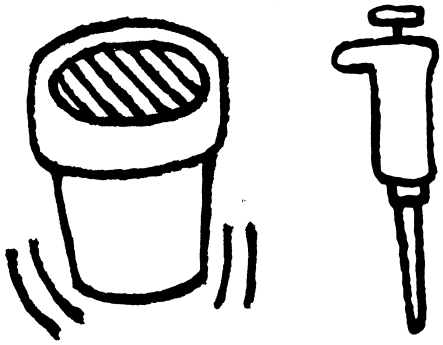
3. Pour saline solution into your mouth, and vigorously rinse the inside of your cheeks for 30 seconds.



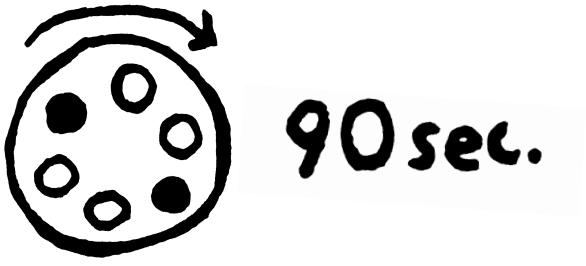
4. Spit saline solution into the paper cup.



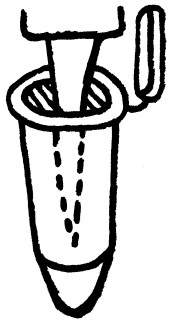
5. Swirl the cup gently to mix cells that may have settled to the bottom. Use a micropipet with a fresh tip to transfer 1000 µL of the solution into your labeled 1.5-mL microcentrifuge tube.



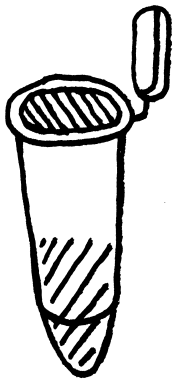
6. Place the sample tubes in a balanced configuration in a microcentrifuge, and spin for 90 seconds at full speed.



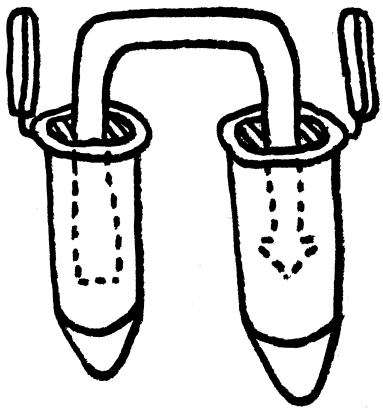
7. Pipet out the supernatant (clear stuff at the top of the tube). Try to remove most of it, but be careful not to disturb the cell pellet (clump of white cells) at the bottom of the tube.



8. Set a micropipet to 50 µL. Resuspend cells in the remaining saline by pipetting in and out.

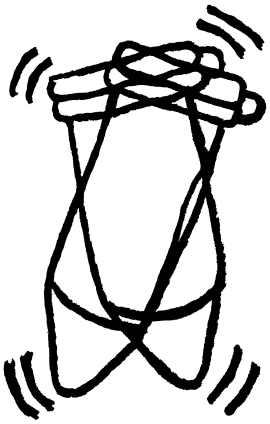


9. Withdraw 50 µL of cell suspension, and add it to a tube containing 100 µL of Chelex®. Label the cap and side of the tube.

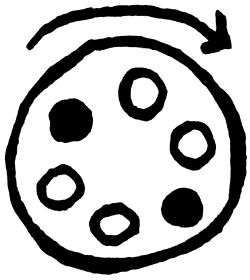


10. Boil the tubes for 10 minutes. If tossing in a kettle make sure the lids are tightly closed and seal with parafilm or shrink wrap.

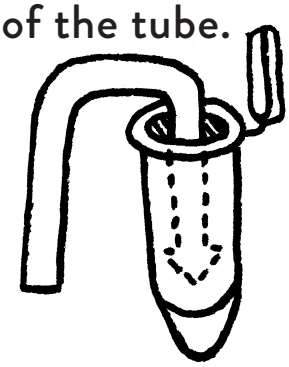
11. Shake the tubes vigorously (or vortex) for 5 seconds.



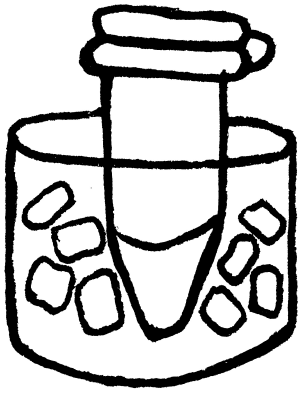
12. Place tubes in a balanced configuration in microcentrifuge and spin for 90 seconds at full speed.



13. Use a micropipet with a fresh tip to transfer 50 µL of the clear supernatant into a clean 1.5-mL tube. Be careful to avoid pipetting any cell debris and Chelex® beads. Label the cap and side of the tube.



14. Store on ice or in the freezer until ready to use.



15. If you are in a fancy lab quantify your DNA using a nano-drop, Qubit or PCR + gel electrophoresis. If not, try using a capacitance meter:

https://groups.google.com/forum/#!topic/diybio/DCzB2L5iaZo

DNA extraction steps lovingly appropriated from DNALC protocols: www.dnalc.org

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