## CLAIMS

1. A method for preparing electrocompetent yeast cells, comprising the steps of:
   a) growing yeast cells to an $OD_{600}$ of between 1.0 to 2;
   b) washing the cells with cold water;
   c) washing the cells with a cold solution comprising sorbitol and $CaCl_2$;
   d) incubating the cells with a solution comprising lithium acetate and tris(2-carboxyethyl)phosphine (TCEP);
   e) washing the cells with a cold solution comprising sorbitol and $CaCl_2$;
   f) resuspending the cells in a solution comprising sorbitol.

2. The method according to claim 1, wherein the cells are suitably stored.

3. A method for transfecting electrocompetent yeast cells, comprising the steps of:
   a) providing electrocompetent yeast cells prepared according to claims 1-2;
   b) washing the cells with a cold solution comprising sorbitol;
   c) mixing the cells with the DNA to be transfected, to form a pre-electroporation-mix;
   d) transferring said pre-electroporation-mix into a suitable electroporation cuvette, and
   e) electroporating said cells at between 2.5 kV/cm to 12.5 kV/cm for between 2 to 5 ms.

4. The method according to claim 3, wherein said DNA is linear or circular.

5. The method according to claim 3 or 4, wherein said DNA comprises a library of DNA fragments encoding for a library of proteins of interest.

6. The method according to claim 5, wherein the library of proteins is a yeast surface display library.

7. The method according to claim 6, wherein said display library is a T-cell receptor (TCR) library.

8. The method according to any one of claims 3 to 7, wherein the transformation efficiency is higher than $1 \times 10^8$ yeast transformants/µg vector DNA, preferably higher than $2 \times 10^8$ yeast transformants/µg vector DNA

9. A method for producing a yeast library of proteins of interest, comprising the steps of:
   a) providing a transfected yeast cells according to the method according to any one of claims 3 to 8;
   b) diluting the transfected cells into a 1:1 mix of a solution of sorbitol in growth medium;
   c) resuspending cells in suitable growth medium; and
   d) transferring said library into suitable growth medium and expanding said library per electroporation.

10. The method according to claim 9, wherein the yeast library is a yeast surface display library.

11. The method according to claims 9 or 10, further compromising the following step: performing dilutions for a calculation of diversity, and plating said dilutions on SD-CAA plates containing kanamycin.

12. The method according to any one of claims 9-11, wherein the expanded library is suitably stored.

13. The method according to any one of claims 9-12, wherein said display library is a T-cell receptor library.

14. The method according to any one of claims 9 to 13, wherein the diversity of said library is higher than $10^{12}$.