LINCS Reagent Definitions

1. Antibody reagent - proteins (natural or engineered) which ordinarily elicit an immune response *in vivo*; utilized in *in vitro* or *in vivo* studies for protein recognition and marking or as system perturbagens.

2. Cell lines - Immortalized (naturally or engineered), genetically uniform tissue cells able to reproduce indefinitely in standard culture conditions.

3. Differentiated cells - cells derived from another cell type of higher potency (source), such as pluripotent stem cells differentiating into multipotent stem cells or unipotent cells.

4. Embryonic stem cells - pluripotent stem cells isolated from the inner cell mass of an organism's blastocyst, able to be maintained in culture indefinitely in the pluripotent state, while remaining genetically homogenous.

5. Induced pluripotent stem cells (iPSCs) - pluripotent stem cells derived by reprogramming cells of lower potency to a pluripotent state. iPSC lines are ideally derived from a single colony of de-differentiated cells to maintain genetic heterogeneity, and can be maintained in culture as pluripotent cells indefinitely.

6. Nucleic acid reagents - natural or engineered assay perturbagens built of a polynucleic structure, often used in the interference of specific sequences of DNA/RNA in cells, tissues, or animal models, including siRNA, shRNA, and guide RNAs for TALEN and CRISPR/CAS.

7. Primary cells - cells obtained from homogeneous tissue, such as a singular organ or organ sub-structure, and maintained in culture temporarily for experimental purposes. Only viable for a limited time after isolation.

8. Proteins - natural or engineered perturbagens consisting of large, heavy polypeptide chains structured by primary, secondary, tertiary, and quaternary facets. Includes, but not limited to, enzymes, cofactors, signaling molecules, adhesion molecules, and structural chains. Antibodies, while proteins, are defined separately as ANTIBODY REAGENTS.

9. Small molecules - natural or laboratory synthesized primarily organic molecules with a low molecular weight (generally < 900 Daltons), able to diffuse across cellular membranes and used to perturb the biological model system. Often bind to specific biological targets.

10. Unclassified perturbagens - perturbagens used in a system that do not fall into any other category listed above.

11. Other reagents - non-perturbagen auxiliary reagents utilized in a biomedical assay such as stains and buffers and which are not intended to perturb the biological model system.