List of Abbreviations:

| X-Gal | 5-Bromo-4-chloro-3-indolyl-β-D galactopyranoside |
|---------|--|
| IPTG | Isopropyl β-D thio galactopyranoside |
| LB | Luria broth |
| SDS | Sodium Dodecyl Sulphate |
| kb | kilobase (s) |
| bp | base pair (s) |
| kDa | kilodalton |
| rpm | Revolutions per minute |
| OD | Optical Density |
| mM | millimolar |
| μl/ml | Microlitres / microlitres |
| Ori | Origin of replication |
| GDH | Glucose dehydrogenase |
| GAD | Gluconate dehydrogenase |
| EYFP | Enhanced fluorescent protein |
| PTS | Phosphoenolpyruvate:sugar phosphotransferase system |
| PQQ | Pyrolloquinolino quinone |
| ATP | Adenosine triphosphate |
| DNA | Deoxyribonucleic acid |
| cAMP | Cyclic adenosine monophosphate |
| NAD(H) | Nicotinamide adenine dinucleotide (reduced) |
| NADP(H) | Nicotinamide adenine dinucleotide phosphate (reduced |
| EMP | Embden-Meyerhof-Parnas pathway |
| TCA | Tricarboxylic acid |
| PPP | Pentose phosphate pathway |
| ETC | Electron transport chain |
| ED | Entner-Duodoroff |
| PSM | Phosphate solubilizing microorganisms |
| P/Pi | Phosphate / inorganic phosphate |
| HPLC | High performance liquid chromatography |
| BLAST | Basic local alignment search tool |
| PCR | Polymerase Chain Reaction |
| PAGE | Polyacrylamid Gel Electrophoresis |
| EDTA | Ethylene diamine tetra acetic acid |
| Tris | Tris (hydroxymethyl) aminomethane buffer |
| СТАВ | Cetyl trimethylammonium bromide |
| PGPR | Plant Growth Promoting Rhizobacteria |
| RE | Restriction Endonuclease |

Note: The full forms of several other minor abbreviations have been described within the text.