Title: METABOLIC ENGINEERING OF XYLOSE FERMENTING EUKARYOTIC CELLS

Abstract: The present invention relates to further genetic modifications in eukaryotic host cells that have been transformed to express a xylose isomerase that confers the host cell the ability of isomerising xylose to xylulose. The further genetic modifications are aimed at improving the efficiency of xylose metabolism and include e.g. reduction of unspecific aldehyde reductase activity, increased xylulose kinase activity and increased flux of the pentose phosphate pathway. The modified host cells of the invention are suitable for the production of a wide variety of fermentation products, including ethanol, in fermentation processes in which a source of xylose or a source of xylose and glucose are used as carbon source.