

**cDNA cloning and subcellular localization of glyoxylate dehydrogenase
from brown-rot fungus *Fomitopsis palustris***

Madoka Fujimura

Laboratory of Metabolic Science of Forest Plants and Microorganisms, RISH, Kyoto University

Oxalate biosynthesis in wood-destroying fungi, including *Fomitopsis palustris*, has been receiving much attention, because the acid is closely associated with wood decay processes and inactivation of copper-containing wood preservatives. Wood-rotting basidiomycete *F. palustris* acquires biochemical energy for growth by oxalate biosynthesis during glucose oxidation. Two enzymes have been proposed to be involved in oxalate production for *F. palustris* by biochemical studies regarding enzyme activities. One is oxaloacetase which catalyzes hydrolysis of oxaloacetate to give oxalate and acetate. The other is glyoxylate dehydrogenase (FPGLOXDH1) to give oxalate from glyoxylate in the presence of cytochrome *c* as an electron acceptor. In this study cDNA *FPGLOXDH1* encoding FPGLOXDH1 has been cloned out and subcellular localization of FPGLOXDH1 has been investigated.