

研究室名	染色体構築制御研究室 学会発表
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【発表者について】 アンダーラインは本学教員、研究員および技術職員、○は発表者、※は大学院生、卒研究生または卒業生

学会名	第44回 日本分子生物学学会
演題名	ヘテロクロマチン進化を油脂生産酵母 <i>Lipomyces starkeyi</i> から読み解く
発表者	<u>高山優子</u> ○
内容	<p>The oleaginous yeast <i>Lipomyces starkeyi</i> is attracted attention as a biofuel-producing organism that does not compete with grains. Based on its whole genome sequence information, it was said to be "the only budding yeast with H3K9 methylation-mediated heterochromatin," but genetic crosses and gene insertion techniques are still in their infancy, and little analysis of the chromosome has been done. In this study, we identified a heterochromatin protein, HP1/Swi6, a homolog of oil-producing yeast. The homologs were expressed in fission yeast and their functions were analyzed. The oil-producing yeast HP1/Swi6 homolog Lsw1 (<i>Lipomyces starkeyi</i> swi6 homolog 1) was found to bind to the fission yeast heterochromatin region in a methylated H3K9-dependent manner. Western blotting revealed that H3K9 is methylated in the chromatin of oil-producing yeast. Since RNAi-related genes are also present in oil-producing yeast, we expect that the evolution of heterochromatin formation can be clarified by comparing it with that of the closely related budding yeast. Since experimental methods similar to those used in fission yeast and budding yeast are essential for further research, we are currently trying to analyze the genetics of oil-producing yeast. Ref. https://www.mdpi.com/2073-4425/11/7/769</p>
関連画像	