

猪肉基因（组）研究进展及相关问题探讨 Progress in Porky Genes and Transcriptome and Discussion of Relative Issues

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摘要 肌肉生长和品质是目前猪肉分子遗传基础研究的两个重要内容。通过候选基因法和基因组扫描法已鉴定出包括氟烷基因和酸肉基因在内的多个影响猪肉生长和品质的功能基因及若干QTLs。猪肌肉和脂肪相关基因转录谱的研究亦初步展开。但是, 这些研究在一定程度上均表现出某些不足。分子数量遗传学的研究过分强调单个基因的作用而忽略了多基因的系统表达模式, 转录谱的研究则存在实验技术单一以及将肌肉和脂肪受控基因人为分离进行研究的缺陷。用系统的观点和方法对猪肉相关基因进行并行遗传学研究, 揭示猪肉生长发育过程中骨骼肌细胞和脂肪细胞基因表达调控的分子互作机制将是今后猪肉基因(组)研究的重要方向。

Abstract: To date, research on molecular base of porky molecular development was mainly involved in muscle growth and meat quality. Some functional genes including Hal gene and RN gene and some QTLs controlling or associated with porky growth and quality were detected through candidate gene approach and genome-wide scanning. Genic transcriptome pertinent to porcine muscle and adipose also came into study. At the same time, these researches have befallen some shortcomings to some extent. Research from molecular quantitative genetics showed shortcomings that single gene was devilishly emphasized and co-expression pattern of multi-genes was ignored. Research applying transcriptome analysis tool also met two of limitations, one was the singleness of type of molecular experimental techniques, and another was that genes of muscle and adipose were artificially divided into unattached two parts. Thus, porky genes were explored by parallel genetics based on systemic views and techniques to specially reveal the interactional mechanism of porky genes respectively controlling muscle and adipose, which would be important issues of genes and genome researches on porky development in the near future.

关键词 [猪肉](#) [基因](#) [转录谱](#) [不足](#) **Key words** [pork](#) [gene](#) [transcriptome](#) [shortcoming](#)

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