



**Molecular Biotechnology Programme
Uppsala University School of Engineering**

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Author	Tomas Risberg	
Title (English)	Design of primers and amplification of their respective genes through PCR from a <i>Mus musculus</i> cDNA-library	
Title (Swedish)		
Abstract	Birth defects are some of the more common deformation seen in humans. <i>Spina bifida</i> relates to the first trimester of the pregnancy. It is desired to map the genes that are involved in the process of raising and closing the neural tube. This project aims to do that. By using the microarray technique, it is possible to monitor the differences in expression of multiple genes simultaneously. I have located the genetic sequences to a carefully selected number of genes and then designed appropriate primers to these. Each gene was amplified in a PCR, using these primers, from a cDNA-library, extracted from day 9 <i>p.c.</i> <i>M. musculus</i> embryos. The amplified genes are to be used as probes on the microarray that is developing.	
Keywords	Spina bifida, exencephaly, embryonic development, microarray, PCR, retinoic acid	
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