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Author <b>Karin Johansson</b>		
Title (English) <b>Integrated transcript and protein analysis – a bioinformatics approach</b>		
Title (Swedish)		
Abstract Gene expression can be measured at both the level of mRNA (transcriptomics) and that of protein (proteomics). Today, very little is known about the relationship between gene expression as determined by mRNA and protein techniques. Understanding the biological (and mathematical) correlation that exists between mRNA and protein is valuable since it may enable prediction of gene expression from one level to the other. The aim of this project was to examine the correlation between mRNA and protein in rat liver, and to categorize <i>when</i> , <i>how</i> , and <i>if</i> transcripts and proteins should be analyzed in an integrated fashion. The conclusion that could be drawn was that the mRNA-to-protein correlation was significantly different between cellular compartments and functional categories. Although it is not yet possible to predict protein expression from only microarray experiments, this study introduces an interesting field of research and provides a benchmark for future studies.		
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