Prenatal diagnosis is now part of established obstetric practice in many countries.
However, conventional methods of obtaining fetal tissues for genetic analysis, including amniocentesis and chorionic villus sampling, are invasive and constitute a finite risk to the unborn fetus. Approximately one procent end with abortion because of the procedure, even though the fetus is healthy. Other methods also exist, that without risks, can give information about certain conditions that the fetus might have. But a certain diagnosis can not be given without several different examination methods by a specialist.
It has been a long-sought goal in human genetics to develop methods of obtaining fetal genetic materials for analysis, without putting a risk on the mother and fetus. Research in this field have been intensified the last years, mostly because of technologically improvements that have given us new techniques and new valuable information.
Based on analysis of fetal nucleic-DNA in maternal blood, pregnant women are able to get a diagnosis that is totally risk free for the fetus. Unfortunately, with new technology there will always be new problems that need to be discussed and solved before they can be used in clinical practice. The ideal situation would be that there was some kind of world wide policy for the usages, unfortunately this is impossible.
I will look further into the clinical practice of prenatal diagnosis that already exists. Try to evaluate the usage and the negative and positive sides of them. I will also discuss the newer methods and the ethical problems that have arised, and how we might be able to approach them.