**Adult blood**  
(Venous blood from healthy adult donors)

- RNA yield, purity and integrity by NanoDrop™ and by Agilent Bioanalyzer
- RNA transcript stability by RT-qPCR

**Cord blood**  
(Umbilical cord of newborns whose mothers have given their informed consent to participate in the Mother and Child (MoBa) Study)

- RNA stabilizing technologies comparison:
  - Adult blood (n=40) tubes from one healthy donor
  - Stored 0, 2, 5, 7 days at RT (~22 °C)
  - Frozen at -20 °C overnight and then stored at -80 °C until extraction

- Cord blood (n = 15) tubes from 8 different donors, transported from one hospital to NIPH within 1 day.
  - Samples were frozen upon arrival at NIPH at -20 °C overnight and then stored at -80 °C until extraction

**Suboptimal blood volume QC:**
- Adult blood from one healthy donor was collected in Tempus™ tubes (n = 18)
  - Blood volume (ml) collected in Tempus™ tubes: 3.0, 2.5, 2.0, 1.5, 1.0 and 0.5 ml
  - 3 parallels for each volume.

**Transportation QC: Tempus (n=20) tubes**
- Adult blood from one healthy donor was collected in Tempus™ tubes (n = 20).
- Samples were divided randomly into five groups: 4 groups were sent by standard mail to four different hospitals in Norway: Kirkenes, Bergen, Kristiansand, Bærum and the fifth group was kept at Oslo (NIPH, lab).
- Temperature was monitored during transportation.
- Samples were frozen upon arrival at NIPH.

**RNA stabilizing technologies comparison:**
- PAXgene™ tubes (n=20)
- Tempus™ tubes (n=20)

**Suboptimal blood volume QC:**
- Cord blood from one donor was collected in Tempus™ tubes (n = 10).
  - Blood volume (ml) collected in Tempus™ tubes: 3.3, 3.0, 2.0, 1.0, 0.5 ml.
  - 2 parallels for each volume.

**RNA quality assessment:**
1. RNA yield, purity and integrity by NanoDrop™ and by Agilent Bioanalyzer
2. RNA transcript stability by RT-qPCR