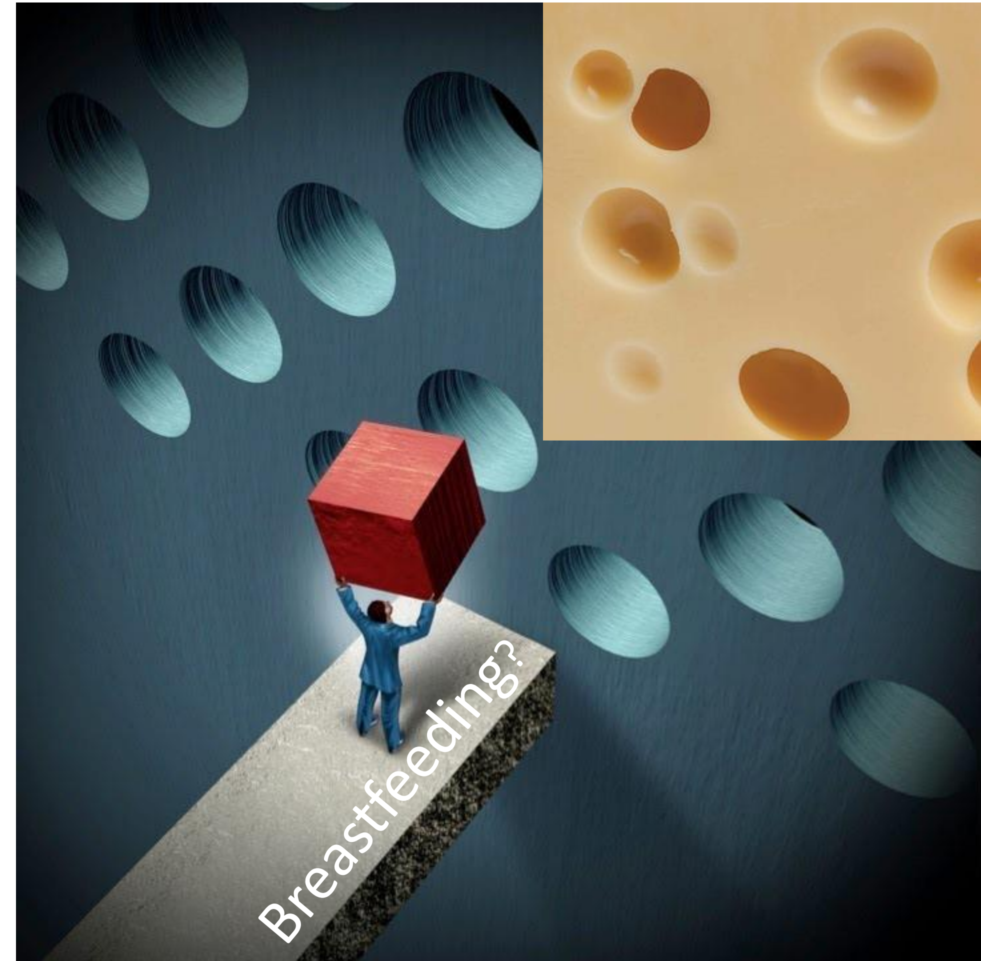
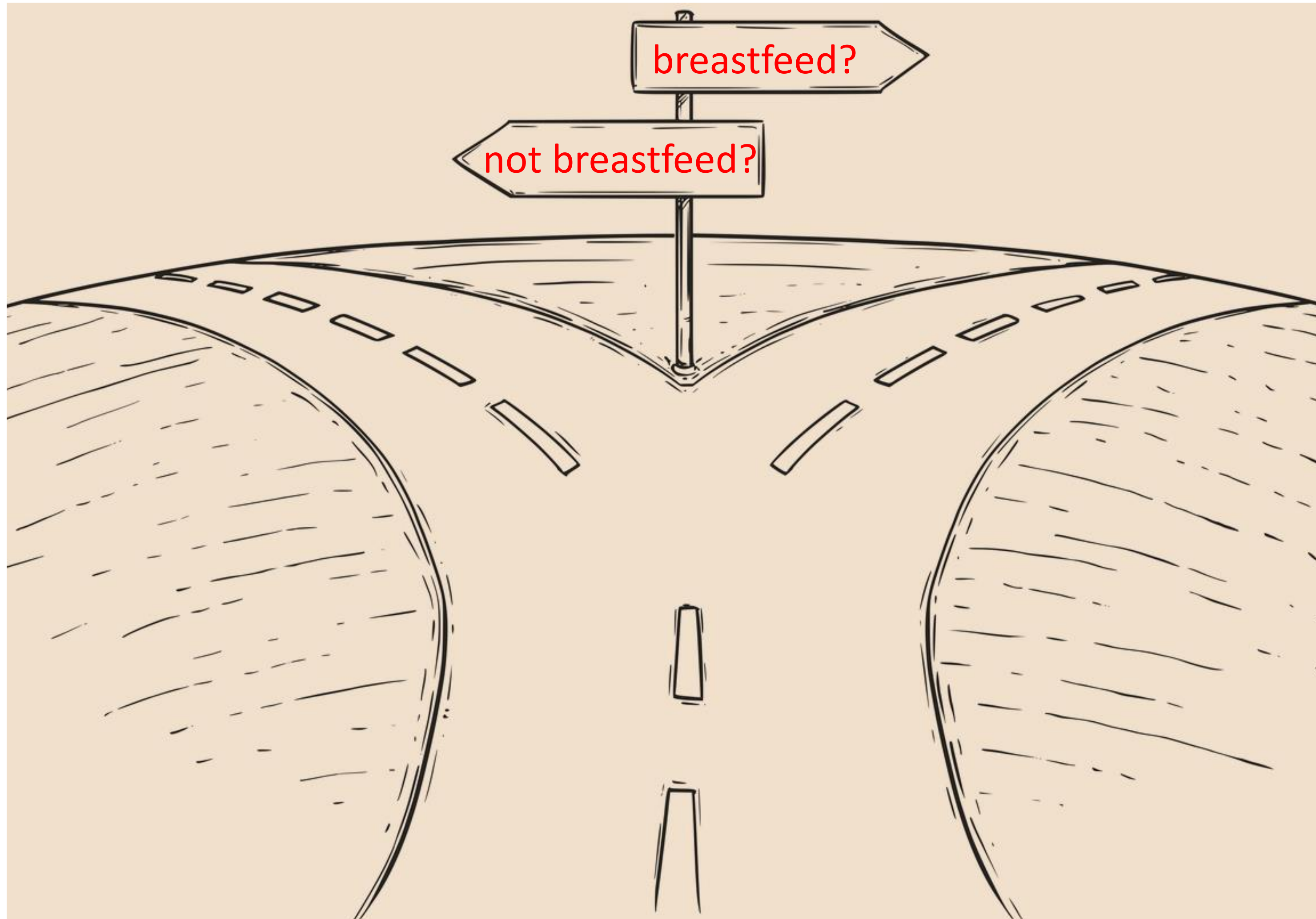
How to **counsel women** living with HIV who are **breastfeeding** in **high-income settings**?



Christian R. Kahlert, WAVE Workshop EACS 2019, Basel

Breastfeeding challenges?

- Setting: **virtually no HIV MTCT risk**
  - maternal HIV infection is diagnosed
  - cART is implemented
  - HIV pVL suppressed
- Globally, breastfeeding recommended
  - evidence for lifelong benefits mother/child
- Safety? Evidence from PROMISE (Flynn, 2018)
  - risk HIV MTCT **0.3%** for **6 months** of breastfeeding, however, HIV pVL data missing
  - acceptable in high-income settings?
- **U**ndetectable = **U**ntransmittable message
  - women want to breastfeed in high-income settings too (e.g. personal, social, cultural)
- Many additional unknowns
  - e.g. toxicity maternal cART



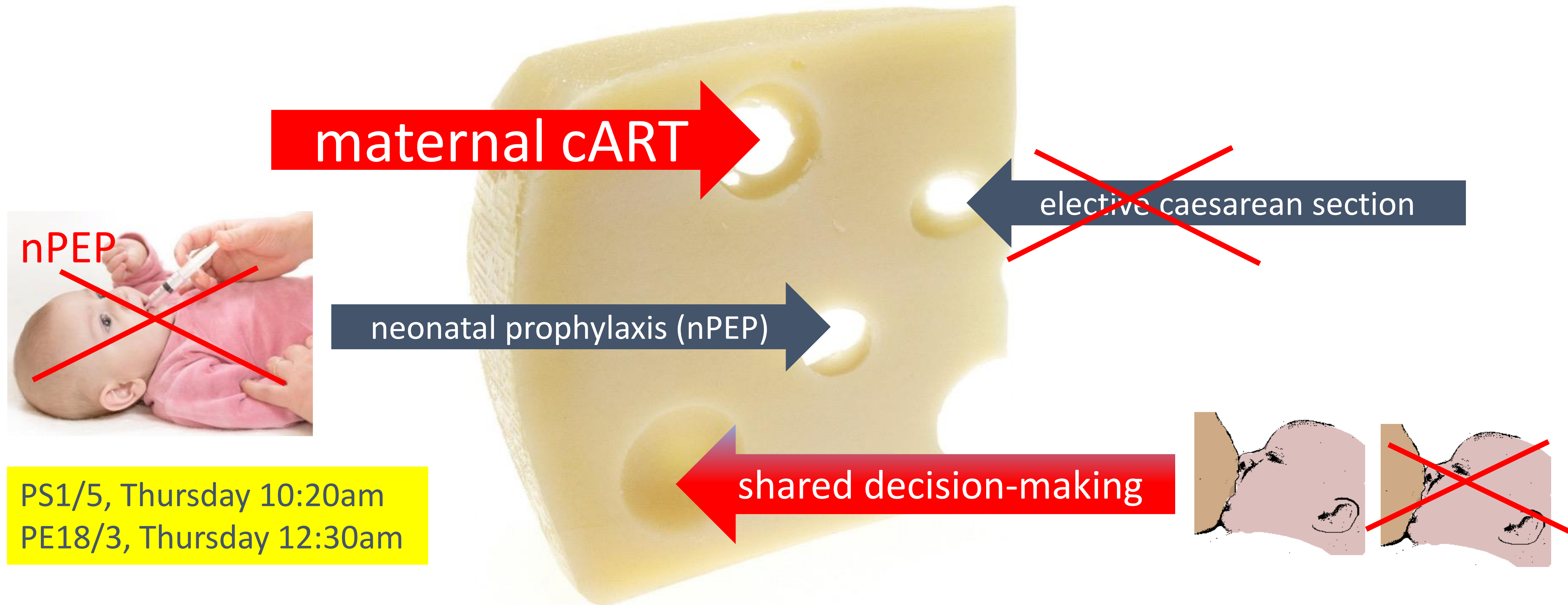
1) clinical **EQUIPOISE**

(...) when the clinical **potential risk** as well as the **benefit** of an intervention **tend towards zero**
-> balancing risk and benefit is utmost challenging, or even impossible. (...)

2) patient's **AUTONOMY**

(...) based on ethical principles (...)

Update Swiss Recommendations 2019



PS1/5, Thursday 10:20am
PE18/3, Thursday 12:30am

2018, Recommendations of the Swiss Federal Commission for Sexual Health (FCSH), DOI 10.13140/RG.2.2.21470.08004/2

Guidance for a shared decision-making

- Prerequisite conditions to minimise HIV MTCT risk (“**optimal scenario**”)
  - **HIV pVL < 50 RNA copies/ml throughout pregnancy** (regular follow-up)
  - All HCW involved: **open, non-judgemental, unbiased** towards breastfeeding, final **decision** after shared decision-making will be **accepted**
- Shared decision-making process
  - **Interdisciplinary** (adult HIV specialist, paediatrician and obstetrician/gyn.),
  - start **early** in pregnancy, comprehensive information and discussion on **benefits- and risks**, **written** decision in the medical records
- Follow up mother and child
  - **Mother**: **initially monthly** follow-up, pVL >50 RNA copies/ml -> stop breastfeeding, immediate contact if issues e.g. mastitis, impaired adherence etc.
  - **Infants**: **routine testing** by PCR month 1, 2 (or 4), 6, serology month 18-24

2018, Recommendations of the Swiss Federal Commission for Sexual Health (FCSH), DOI 10.13140/RG.2.2.21470.08004/2

Benefit/risk consultation with future parents

Benefits

- **Uniform global recommendation** to breastfeed newborns, virtually no contraindications e.g. maternal HIV
- **Simple, easy and free** way of providing nutrition, **psychologically** essential!
- **Child**: microbiome, atopic disease (eczema, wheezing, asthma), infectious diseases (airways, gut)
- **Mother**: postpartum recovery (involution uterus, depression), breast cancer, glucose homeostasis

Risks

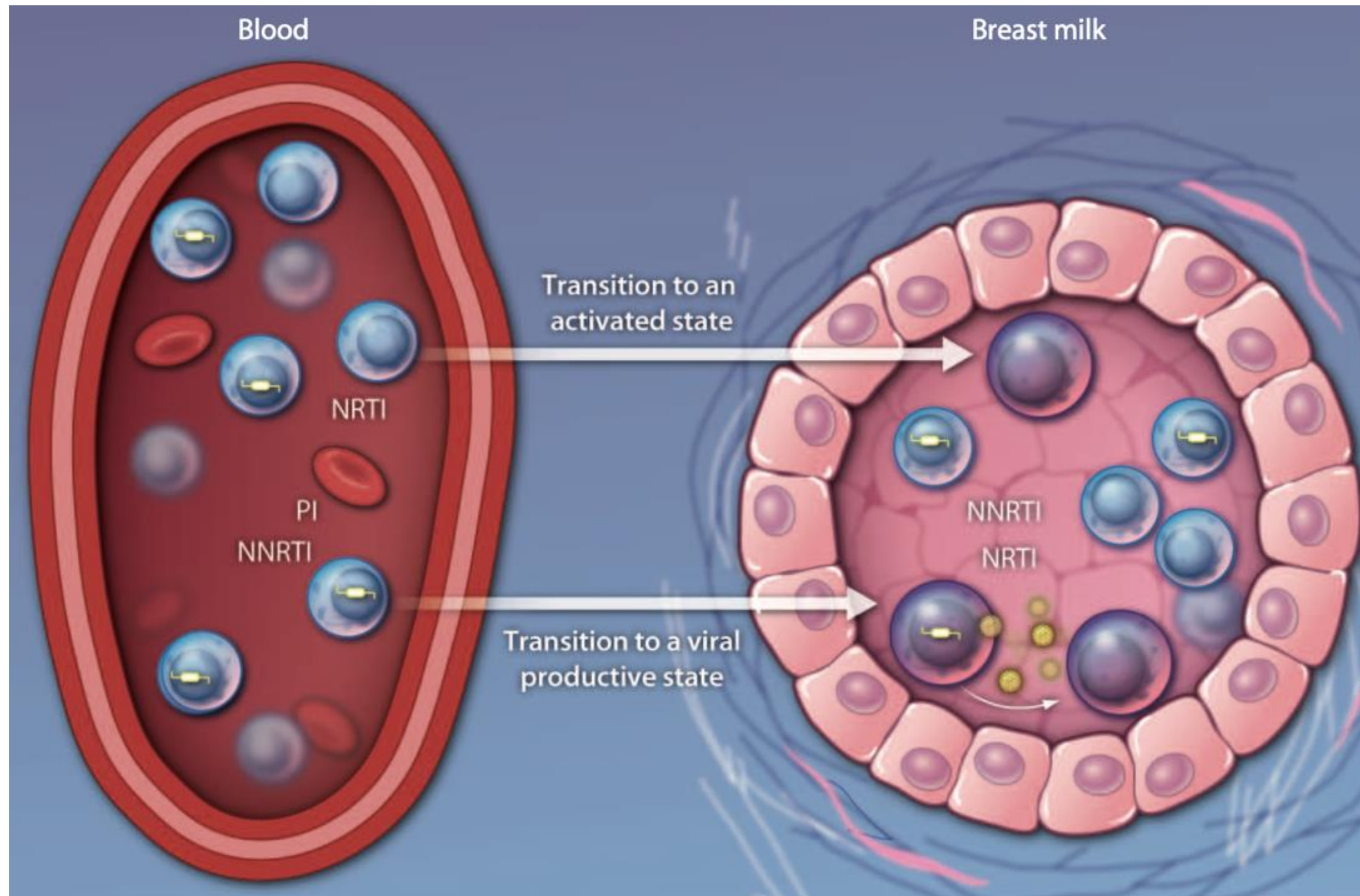
- **HIV MTCT** cannot be ruled out
- **Postpartum vulnerable period** e.g. irregular sleep, adherence!
- Infant: extended **cART exposure** -> toxicity, risk of ART resistance?
- **Mastitis** known as increased risk
- **Exclusive breastfeeding lower risk** of HIV MTCT versus mixed breastfeeding
- **Cell-associated virus**, HIV MTCT risk not fully understood

2018, Recommendations of the Swiss Federal Commission for Sexual Health (FCSH), DOI 10.13140/RG.2.2.21470.08004/2

Extended cART exposure

- Infant **toxicity** due to antiretroviral therapy
  - **serious adverse events** in infants exposed to ARVs through breast milk appear to be **relative uncommon**
  - data from **older drugs** suggest **low drug levels** in breastmilk, experience with **new substances** largely **missing**
- Development of ART **resistance**
  - suboptimal levels of ART -> risk of mutations in the infected infant?

HIV-1 reservoir present in breastmilk



cell-associated (DNA) virus in breastmilk

- **even when HIV pVL suppressed**, depend on duration of suppression

relevance with regard to HIV MTCT unclear, nevertheless this is a concern

2012, van de Perre, DOI 10.1126/scitranslmed.3003327

Detectable virus in body fluids relates to transmission?

- **Yes, of course, but...**
- Results PARTNER 1 (2016, Rodger, JAMA) and PARTNER 2 (2019, Rodger, Lancet) study confirmed U = U message
  -> **suppression of HIV pVL is key**!
- Genital shedding in **5.8%** of about 1000 women on cART with suppressed HIV pVL (2017, King, JID)
- **-> elective cesarean section abandoned without signal of elevated HIV MTCT transmission!**

Current Situation CH?

- Breastfeeding mothers
  - recommendations implemented 12/2018
  - 5 women with HIV breastfeeding documented in SHCS database
- Research project
  - **Breastfeeding in HIV-positive women: Evaluating the shared decision making process and prospective cohort evaluation** (SHCS817, PI K. Aebi-Popp)

Lessons from the implementation

- Ensure that the **mother can decide freely**
  - separate discussion with the mother
- Implement **clear communication**, involve stakeholders e.g. **midwives**, obstetrical/neonatal ward, neonatologist
  - written documentation of decision
  - motivation to support women with HIV
  - clarify infection control issues e.g. cleaning of breastmilk pumps in advance
- Provide **uncomplicated support** for the mother
  - encourage mother to get immediately in contact in case of problems e.g. unstable adherence, breastfeeding support...

Conclusion

- Shared decision-making approach accepted and feasible in Switzerland
  - breastfeeding supported (no active recommendation!)
    - optimal scenario
    - informed parental decision
  - "**intermediate approach**" until robust safety data available
  - **years in CH to detect HIV MTCT!**
- innovative ideas needed until U = U in breastfeeding
  - Hypothesis: "The chance of HIV MTCT from a breastfeeding suppressed mother is ZERO!"
- Need for common action!
  - collect and contribute data on breastfeeding with HIV in high—income settings!