- Short sleepers normally get as much SWS as long sleepers
- **Cognitive neuroscience of sleep** 
  - Damage to **anterior hypothalamus** = wakefulness
  - Damage to **posterior hypothalamus** = excessive sleep
  - Caudal reticular formation -> controls REM sleep
  - Melatonin major hormone that affects sleep
- Superchiasmatic nucleus •
  - Determines circadian cycle
    - Richter (1967)
      - large medial hypothalamic lesions disrupt circadian cycles of • eating, drinking and activity in rats
    - Ralph et al (1990)



- removed the SCN from the foet set Groutant hamsters that • have short (20hr) sleep watercycle
- into normal adult hamsters (25hr sleeptransplanted th KE CV C Er whose SCN y abc hed (lesioned) Preview

Resul Transplants restored sleep-wake cycle to 20hr

• The SCN is freely determining circadian rhythms