

A Background to Classical Eye-blink Conditioning

By Chris Ryan

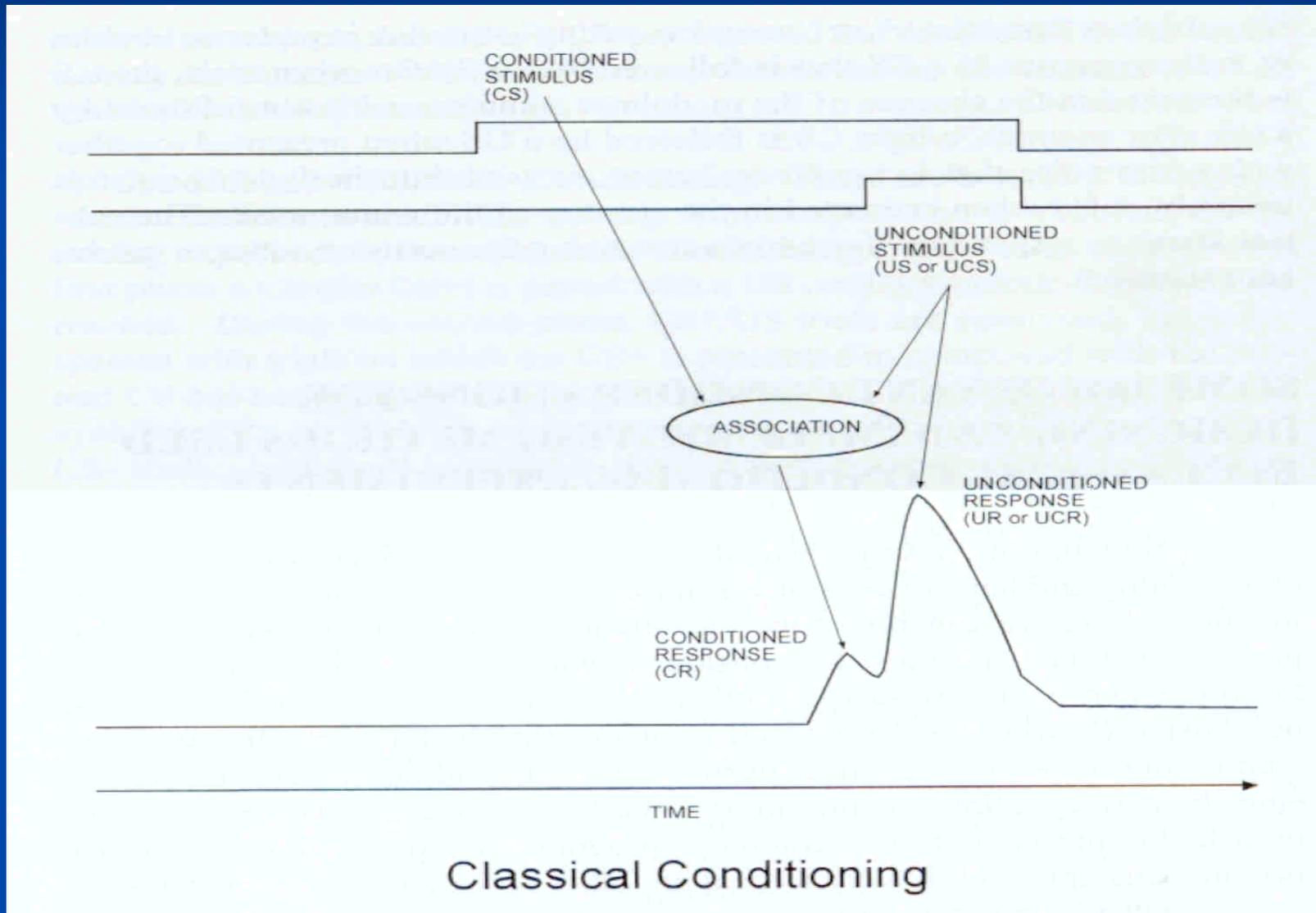
Background Info for Classical Eye-Blink Conditioning

- What is Classical Eye-Blink Conditioning?
- What has been discovered about the neural pathway of this mechanism?
- How is this neural pathway discovered and exploited?

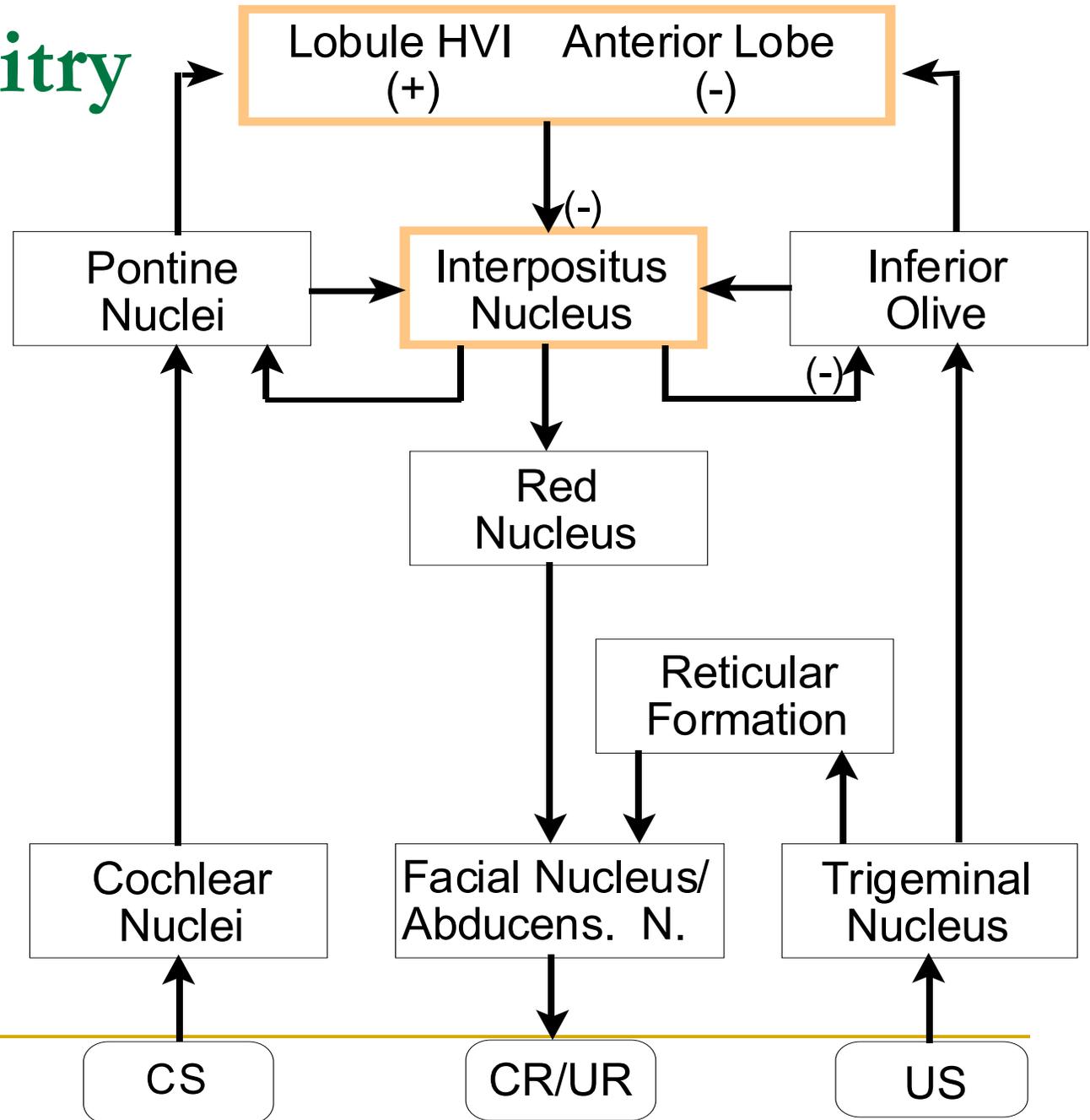
Pavlov and our Rabbits

- Unconditioned Stimuli (US)
 - The rabbit receives an **AIR PUFF** at the eye
- Unconditioned Response (UR)
 - The rabbit naturally **BLINKS** in response to the air puff
- Conditioned Stimuli (CS)
 - The rabbit hears the **TONE** before the air puff
- Conditioned Response (CR)
 - The rabbit now **BLINKS** in response to the tone

Connecting the Stimuli to the Response



The Circuitry



Techniques of Exploration

- Neuronal Staining: Pathways can be exposed leading to or from brain areas.
- Permanent Lesions: Removing an area of the brain.
- Temporary Lesions: Infusing a drug into an area of the brain.
- Single Cell Recording: Brain electrode implants
- EMG Recording: Muscle electrode implants

The Background Information

- The four vocabulary terms of Classical Eye-Blink Conditioning
- The model which that is used in the process
- The methods used in this kind of research (lesions and recording techniques)