The Morris water maze and retrieving scientific literature
Today’s papers
Searching for scientific literature

• Keyword searches in search engines
• Finding papers on publisher websites
• Finding papers referenced in current paper
• Finding papers that reference current paper
Search engines – example

Pubmed

Literature search assignment

• Choose your favorite paper so far in the course.
• Find a (more recent) paper you like that cites your paper.
• Answer the following questions:
  • Why you liked this (new) paper?
  • What is the question it addresses?
  • How does it address the question?
  • In your opinion – did they answer the question?
• Due – October 30\textsuperscript{th} (Field trip day).
Next week’s papers “place cells”

• How place fields are recorded.
• LFP (EEG) and units
• “replay”
Recording hippocampal “place cells”
The tetrode microdrive

Signal amplified and sent to computers for storage and analysis

Tetrode recording wire
Nomenclature

• LFP – local field potential
• EEG – electro encephalo gram

• Unit – isolated activity of what is presumed to be a single neuron.
“Replay”

- Cells active in adjacent locations on the track correlate in the timing of firing.
- This correlation is maintained and “replayed” in subsequent sleep sessions.
Questions for next week

• O’Keefe and Dostrovsky – Define a hippocampal spatial unit.
• Ji and Wilson –
• Focus on introduction and discussion – the results section is very technical.
• Choose the figure that in your opinion captures the essence of the paper. Be prepared to explain it.