Photoacoustic NeuroImaging

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Goals:

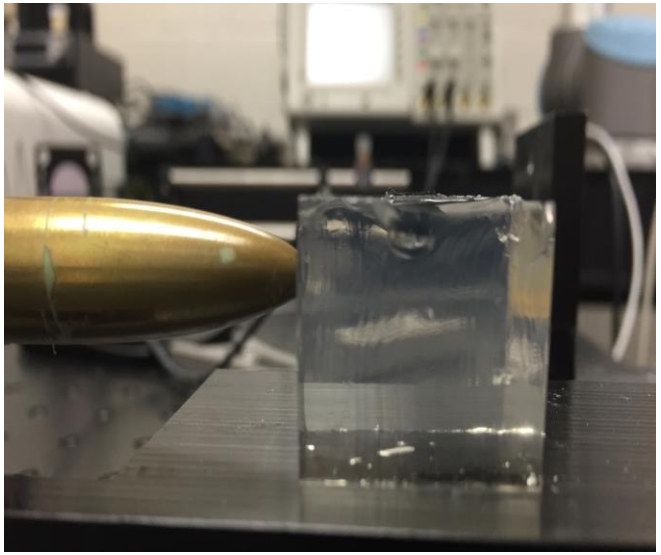
- Acquire characteristic photoacoustic spectrums for a number of dyes
- Gather more in-depth spectrums by varying concentrations and pH
- Introduce skull bone into the phantom

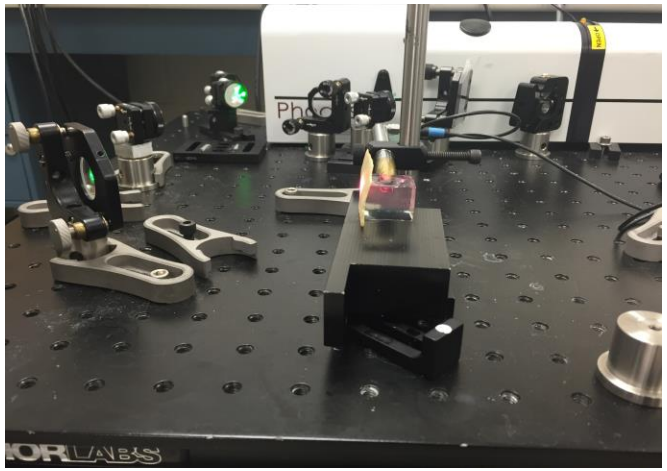
Significance:

Current technologies either do not provide the necessary spatiotemporal dynamics or are invasive

Results:

- Acquired baseline spectrums for 9 dyes
- Observed effects of concentration on output signal for 3 dyes
- Observed effects of pH on output signal for 3 dyes
- Tested 1 dye with bone phantom and varying pH
- Varied bone thickness and observed change in output for 1 dye





Why photoacoustics? Why dyes? Why concentration? Why pH?