

# Near Infrared Nanosensors to Image Neuromodulation

Blockers  
Antipsychotics

Stimulants  
ADHD, ADD

Re-uptake blockers  
Antidepressants

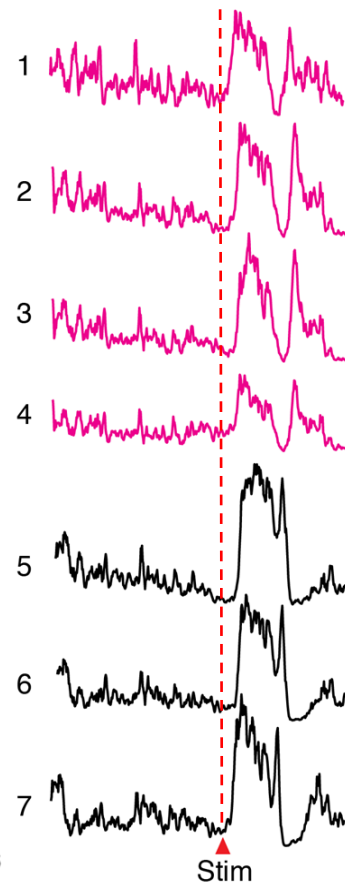


Stimulus



Behavior

## Dopamine Imaging

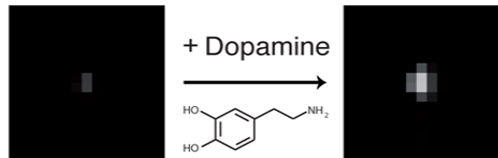
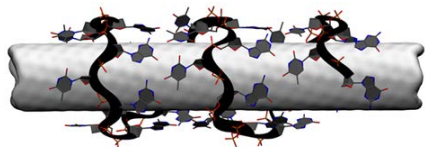


20 nM  
10 s

Stim

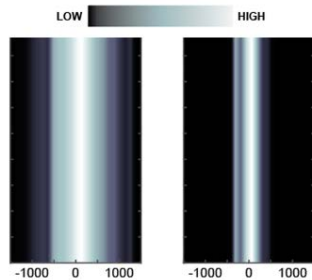
Markita Landry

## Nanosensor Chemistry



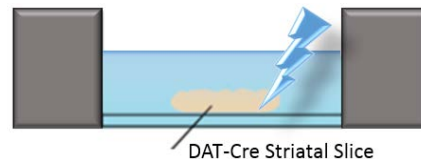
Beyene et al. *ACS Chem. Neuro.* (2017)

## Deep-tissue microscopy

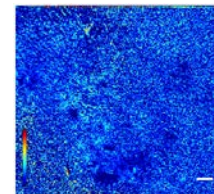
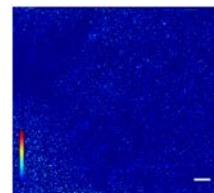


Position ( $\mu\text{m}$ ) Position ( $\mu\text{m}$ )

O'Donnell et al. *Advanced Functional Materials* (2017)



DAT-Cre Striatal Slice



BURROUGHS  
WELLCOME  
FUND

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