### EXAMPLES OF STUDENT RESEARCH PROJECTS AT OBERLIN

**ACADEMIC YEARS 1995 to Present**

(H = Honors; R = Research; WT = Winter Term Project; Rsst = Research Assistant)

(MacGregor-Oresmon = MO; Howard Hughes = HH; McNair = MN; NSF = National Science Foundation; G-in-A = Grant-in-Aid)

### HONORS 2014-2015

<table>
<thead>
<tr>
<th>NAME</th>
<th>PROJECT TITLE</th>
<th>STATUS</th>
<th>MENTOR</th>
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<tbody>
<tr>
<td>Chong, Weelic</td>
<td>Investigating the neuromodulatory role of alpha-synuclein in heavy metal transport and homeostasis</td>
<td>HONORS</td>
<td>G. Kwakye</td>
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<td>Dominah, Gifty</td>
<td>Investigations of the effects of commonly used pesticide, chlorpyrifos, on Huntington disease models</td>
<td>HONORS</td>
<td>G. Kwakye</td>
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<tr>
<td>Johnson, Michelle</td>
<td>Title: Investigation of the genetic contribution to temporal multisensory brain functioning of autism risk genes</td>
<td>HONORS</td>
<td>L. Kwakye</td>
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<tr>
<td>Lowes, Dan</td>
<td>NMDA Receptor Antagonism as a Developmental Model of Schizophrenia</td>
<td>HONORS</td>
<td>T. Paine</td>
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### Spring 2015

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<td>The Effects of Permanent Damage to the Postrhinal Cortex on Contextual Learning in Rats</td>
<td>Spring 2015</td>
<td>S. Robinson</td>
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<td>Bailey, Hudson</td>
<td>Crossmodal cuing in naturalistic contexts using virtual reality</td>
<td>Spring 2015</td>
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<td>Berenbon, Rebecca</td>
<td>The Effect of Auditory and Visual Attention on Multisensory Integration</td>
<td>Spring 2015</td>
<td>L. Kwakye</td>
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<td>Bohm-Levine, Nate</td>
<td>The Role of Sex Hormones in Neurogenesis</td>
<td>Spring 2015</td>
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<td>Burrows, Luke</td>
<td>Crossmodal cuing in naturalistic contexts using virtual reality</td>
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<td>Chege, Anne</td>
<td>Project 1: Huntington’s disease (HD) is a genetic neurodegenerative disease that results in movement, cognition, personality and mood impairments.</td>
<td>Spring 2015</td>
<td>G. Kwakye</td>
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<tr>
<td>Chege, Anne</td>
<td>Project 2: Investigations of the effects of commonly used pesticide, chlorpyrifos, on Huntington disease models</td>
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<td>Chong, Weelic</td>
<td>Examining the neuromodulatory role of alpha-synuclein in cadmium transport dynamics and homeostasis in a Parkinson’s disease cell model</td>
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<td>Dean, Cassie</td>
<td>The Effects of Auditory Distractors on Multisensory Attention</td>
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<td>Dominah, Gifty</td>
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<td>Fried, Jackson</td>
<td>Hormones rescue memory in an animal model of schizophrenia: potential neurophysiological mechanisms.</td>
<td>Spring 2015</td>
<td>J. Thornton</td>
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<tr>
<td>Hirabayshi, Kathryn</td>
<td>Title: Neural Correlates of Multisensory Attention Investigated Using EEG</td>
<td>Spring 2015</td>
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<tr>
<td>Hitchcock, Gabe</td>
<td>Title: Role of α5 GABA&lt;sub&gt;A&lt;/sub&gt; receptors in schizophrenia-like attention deficits</td>
<td>Spring 2015</td>
<td>T. Paine</td>
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<td>Hunter, Ted</td>
<td>Title: Role of α5 GABA&lt;sub&gt;A&lt;/sub&gt; receptors in schizophrenia-like attention deficits</td>
<td>Spring 2015</td>
<td>T. Paine</td>
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<td>Ihle, Peter</td>
<td>The Effects of Permanent Damage to the Postrhinal Cortex on Contextual Learning in Rats</td>
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<td>Jimenez, Jessica</td>
<td>Examining the neuromodulatory role of alpha-synuclein in cadmium transport dynamics and homeostasis in a Parkinson’s disease cell model</td>
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<td>Kerkhoff, Willa</td>
<td>The Effect of Auditory and Visual Attention on Multisensory Integration</td>
<td>Spring 2015</td>
<td>L. Kwakye</td>
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<tr>
<td>Lehmann, Emma</td>
<td>Title: Role of α5 GABA&lt;sub&gt;A&lt;/sub&gt; receptors in schizophrenia-like attention deficits</td>
<td>Spring 2015</td>
<td>T. Paine</td>
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<td>Lynch, Will</td>
<td>Information, Biases and Decision Making</td>
<td>Spring 2015</td>
<td>M. Loose</td>
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<td>Lyons, Carey</td>
<td>Hormones rescue memory in an animal model of schizophrenia: potential neurophysiological mechanisms.</td>
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<td>McMinnimy, Rachel</td>
<td>Investigations of the effects of commonly used pesticide, chlorpyrifos, on Huntington disease models</td>
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<td>Medina, James</td>
<td>Title: Role of α5 GABA&lt;sub&gt;A&lt;/sub&gt; receptors in schizophrenia-like attention deficits</td>
<td>Spring 2015</td>
<td>T. Paine</td>
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<td>Miller, David</td>
<td>Neurocomputational studies of action-potential synchronization and desynchronization</td>
<td>Spring 2015</td>
<td>P. Simen</td>
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### Status indicators:
- **HONORS**: Honors project
- **R**: Research project
- **WT**: Winter Term Project
- **Rsst**: Research Assistant
Mukherjee, Tania  
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Spring 2015  
T. Paine

Papadakis, Samantha  
Title: Neural Correlates of Multisensory Attention Investigated Using EEG  
Spring 2015  
L. Kwakye

Parkins, Emma  
The Effect of Auditory and Visual Attention on Multisensory Integration  
Spring 2015  
L. Kwakye

Patel, Akash  
Electroencephalographic (EEG) studies of rhythmic processing:  
Spring 2015  
P. Simen

Riordan, Alex  
Hormones rescue memory in an animal model of schizophrenia: potential neurophysiological mechanisms.  
Spring 2015  
J. Thornton

Rudi, Vera  
Information, Biases and Decision Making  
Spring 2015  
M. Loose

Salas, Olivia  
Music and the Mind: How Attention and Musical Experience Affect Multisensory Integration  
Spring 2015  
L. Kwakye

Schaler, Ari  
Hormones rescue memory in an animal model of schizophrenia: potential neurophysiological mechanisms.  
Spring 2015  
J. Thornton

Shou, Anastasia  
Remote control of cortical neurons involved in learning and mem  
Spring 2015  
S. Robinson

Varrone, Emilia  
The Role of Sex Hormones in Neurogenesis  
Spring 2015  
J. Thornton

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Adelman, Julia  
Project 1: The Effects of Permanent Damage to the Retrosplenial and Postrhinal Cortices on Contextual Learning in Rats  
Research  
S. Robinson

Project 2: A Method for Remotely Silencing Neural Activity During Discrete Phases of Learning  
Research  
S. Robinson

Bailey, Hudson  
Title: Audio-visual integration varies with stimulus and background complexity in a virtual environment: Towards a naturalistic model of multisensory integration  
Research  
L. Kwakye

Berenbon, Rebecca  
Title: The Development of Cross-modal Attentional Cuing in Children  
Research  
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Bohm-Levine, Nate  
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J. Thornton

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G. Kwakye

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Title: The Effect of Stimulus and Distractor Modality on Multisensory Attention  
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L. Kwakye

Freedman, Jason  
Linking Brain to Behavior: EEG, Computational, and Behavior Analysis of Human Decision-Making in Probabilistic Paradigms.  
Research  
M. Loose

Hirabayashi, Kattie  
Title: Neural Correlates of Multisensory Attention Investigated Using EEG  
Research  
L. Kwakye

Hitchcock, Gabriel  
Neuropharmacology Research Experience  
Research  
T. Paine

Hubert, Jessica  
Learning and Memory Research Experience  
Research  
S. Robinson

Hunter, Ted  
Neuropharmacology Research Experience  
Research  
T. Paine

Kerkoff, Willa  
Title: The Effect of Stimulus and Distractor Modality on Multisensory Attention  
Research  
L. Kwakye

Korley, Edmund  
investigate the environmental modulators of the genetic neurodegenerative disorder known as Huntington's disease (HD)  
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G. Kwakye

Lyons, Carey  
Hormones rescue memory in an animal model of schizophrenia: potential neurophysiological mechanisms  
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J. Thornton

McMinimy, Rachael  
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Medina, James  
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Mitts, Sasha  
Linking Brain to Behavior: EEG, Computational, and Behavior Analysis of Human Decision-Making in Probabilistic Paradigms.  
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Mukherjee, Tania  
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Schaler, Ari  
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J. Thornton

Varrone, Emilia  
The effects of estrogens and LH on animal models of Alzheimer's disease  
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<td>Burnham, Veronica</td>
<td>Blocking activity of hippocampal luteinizing hormone rescues spatial memory deficits.</td>
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<td>Summer research on retrosplenial cortex and it's function in contextual learning.</td>
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<td>Jackson, Maya</td>
<td>Investigating survival of HD striatal cells using pesticides Chlorpyrifos and its metabolites</td>
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<td>Korley, Edmund</td>
<td>The genetic neurodegenerative disorder known as Huntington's disease (HD)</td>
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<td>Examining Models of Human Timing</td>
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<td>Russ, Susan</td>
<td>The neural correlates of multisensory temporal processing in an audiovisual steady-state electroencephalogram task</td>
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