

# EARL GILBERT

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## CURRENT POSITION

Virginia Tech  
Graduate Student

Blacksburg, VA  
August 2018-Present

## EDUCATION

Virginia Polytechnic Institute and State University  
August 2018 - Present  
Molecular and Cellular Biology Graduate Program

Blacksburg, VA

GPA: 3.41

Virginia Polytechnic Institute and State University  
Fall 2014-Spring 2017  
Biological Sciences and Neuroscience – B.S. in Biological Sciences and B.S. in Neuroscience

Blacksburg, VA

GPA: 3.05

Northern Virginia Community College  
Summer 2012-Summer 2014  
A.S. in Science

Annandale, VA

GPA: 3.57

## RESEARCH EXPERIENCE

Virginia Polytechnic Institute and State University  
Graduate Student; Advisor: Daniel English, PhD

Blacksburg, VA  
Dec 2018-Current

Dynamics of glutamatergic transmission onto CA1 neurons in awake mice

- Imaged glutamate sensor iGluSNFR *in vivo* in behaving mice using multiphoton microscopy
- Recorded local field potentials in the hippocampus of awake and behaving mice during imaging

Virginia Polytechnic Institute and State University  
Research Technician; Advisor: Michelle Olsen, PhD

Blacksburg, VA  
May 2017-July 2018

Electrophysiological characterization of *in vitro* astrocytes in Serum Free Media

- Cultured astrocytes using novel technique developed in lab
- Recorded and analyzed electrophysiological data of *in vitro* astrocytes

Virginia Tech Carillion Research Institute  
Undergraduate Researcher; Advisor: Harald Sontheimer, PhD

Roanoke, VA  
May 2016-May 2017

Glia and Perineuronal Net Interaction in Pathophysiology

- Immunohistochemistry was used to characterize the holes in the perineuronal net surrounding GABAergic neurons in the wild-type and glioma murine model

Virginia Polytechnic Institute and State University  
Undergraduate Researcher; Advisor: Kendra Sewall, PhD

Blacksburg, VA  
Aug 2015-May 2016

Determination of the change in hippocampal volume of the zebra finch brain in the presence of mercury

- Hippocampal volume of the zebra finch brain was analyzed after exposure to mercury

## PRESENTATIONS

E.T. Gilbert, L.M.F. Klaver, K.C. Arndt, H.L. Lyons, R.C. Bullins, M. Fricke, P. Hannah, D.F. English. **Dynamics of glutamatergic transmission onto CA1 neurons in awake mice.** Society for Neuroscience. Poster Presentation. October 2019. Chicago, IL.

K.C. Arndt, L.M.F. Klaver, E.T. Gilbert, M. Fricke, P. Hannah, H.L. Lyons, R.C. Bullins, D.F. English. **Mechanisms of ripple oscillations in cortical regions.** Society for Neuroscience. Poster Presentation. October 2019. Chicago, IL.

L.M.F. Klaver, R.C. Bullins, K.C. Arndt, E.T. Gilbert, M. Fricke, P. Hannah, H.L. Lyons, J.J. Jun, D.F. English. **Validation of spiking sorting methods with paired recordings from awake mice.** Society for Neuroscience. Poster Presentation. October 2019. Chicago, IL.

B.P. Tewari, L. Chaunsali, E.T. Gilbert, J. Harmon, H. Sontheimer. **Glia and Perineuronal Net Interaction in Pathophysiology.** Conference on Glial Biology in Medicine. Poster presentation. October 2016. Roanoke, VA.