

# KEVIN CHRISTIAN GONZALEZ

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## EDUCATION

08/2018 – Present Columbia University, PhD, Neurobiology and Behavior, Department of Biological Sciences  
08/2013 – 05/2018 The City College of the City University of New York, BS, Biology, Division of Science

## RESEARCH EXPERIENCE

### Columbia University, Department of Biological Sciences – Program in Neurobiology and Behavior

01/2019 – Present Graduate student in the laboratories of Attila Losonczy, M.D., Ph.D and Franck Polleux, Ph.D.  
Project summary: Combining non-invasive optical methods with molecular approaches to characterize mechanisms of subcellular integration and plasticity in the dendrites of hippocampal CA1 pyramidal cells during behavior

### The City College Center for Discovery and Innovation, Division of Science – Department of Biology

06/2015 – 08/2018 Undergraduate Research Assistant in the laboratory of Mark Emerson, Ph.D.  
Project summary: Investigating gene regulatory networks used by retinal progenitor cells to generate cone photoreceptors and horizontal cells

### Harvard Medical School, Division of Medical Sciences – Department of Neurobiology

05/2017 – 08/2017 Participant in Summer Honors Undergraduate Research Program. Advisor: Lisa Goodrich, Ph.D.  
Project summary: Identifying molecular cues driving dendritic arborization during development in retinal amacrine cells

## PUBLICATIONS

### Published

- O'Hare J.K., **Gonzalez K.C.\***, Herrlinger S.A.\*, Hirabayashi Y.\*, Hewitt V.L., Blockus H., Szoboszlay M., Rolotti S.V., Geiller T., Negrean A., Chelur V., Polleux F., Losonczy A. (2022) Compartment-specific tuning of dendritic feature selectivity by intracellular Ca<sup>2+</sup> release. **Science**, DOI: 10.1126/science.abm1670. **\*co-second authorship**
- Gonzalez K.C.**, Losonczy A., Negrean A. (2022) Dendritic Excitability and Synaptic Plasticity In Vitro and In Vivo. **Neuroscience**, DOI: 10.1016/j.neuroscience.2021.12.039
- Rolotti S.V., Ahmed M.S., Szoboszlay M., Geiller T., Negrean A., Blockus H., **Gonzalez K.C.**, Sparks F.T., Canales A.S.S., Tuttmann A.L., Peterka D.S., Zemelman B.V., Polleux F., Losonczy A. (2022) Local feedback inhibition tightly controls rapid formation of hippocampal place fields. **Neuron**, DOI: 10.1016/j.neuron.2021.12.003
- Schick E.\*, **Gonzalez K.C.\***, Dutta P., Hossain K., Emerson M.M. (2021) Early cis-regulatory events in the formation of retinal horizontal cells. **Developmental Biology**, DOI: 10.1016/j.ydbio.2021.03.016. **\*co-first authorship**
- Ghinia-Tegla M.G., Buenaventura D.F., Kim D.Y., Thakurdin C., **Gonzalez K.C.**, Emerson M.M. (2020) OTX2 represses sister cell fate choices in the developing retina to promote photoreceptor specification. **eLife**, DOI: 10.7554/eLife.54279

### Preprint

- Virga D.M., Hamilton S., Osei B., Morgan A., Zamponi E., Park N.J., Hewitt V.L., Zhang D., **Gonzalez K.C.**, Bloss E., Polleux F., Lewis T.L. Activity-dependent subcellular compartmentalization of dendritic mitochondria structure in CA1 pyramidal neurons. **bioRxiv**, DOI: 10.1101/2023.03.25.534233

## TEACHING & TUTORING EXPERIENCE

### Columbia University

01/2021 – 05/2021 Recitation instructor for undergraduate student course (Developmental and Systems Neurobiology) taught by Darcy Kelley, Ph.D.  
01/2020 – 05/2020 Recitation instructor for advanced undergraduate and graduate students course (Neurobio II: Development and Systems Neuroscience) taught by Rafael Yuste, M.D., Ph.D.

### The City College of the City University of New York

02/2016 – 05/2016 General and Organic Chemistry Tutor for the Student Support Services Program  
02/2015 – 12/2015 Chemistry Tutor for City College Academy for Professional Development  
08/2014 – 05/2016 Head Chemistry Teaching Assistant and Liaison for the CCNY Chemistry Department

## AWARDS & FELLOWSHIPS

2021 – 2023 T32 NIH-NINDS Training Grant for Advanced Graduate Students in Neurobiology and Behavior  
2016 – 2018 T34 NIH-MARC Maximizing Access to Research Careers Trainee