

# Colson Parker Tomberlin

August 8, 2016

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## Education

University of Colorado – Boulder (2014- )

- Major: Integrative Physiology
- Minor: Philosophy
- Anticipated graduation date: 2018

## Extracurricular Activities

- Member of the American Medical Student Association (AMSA) ~ 2 years
- Participant at Zenko Kyudojo Japanese archery
- Intermural Basketball (co-captain)

## Journal and Editorial Positions

- Founder and editor in Chief of the Colorado Undergraduate Research Journal (CURJ). Peer reviewed student journal focusing on research done in STEM fields.

## Research Experience

- Research assistant at the Molecular Biology of Neurodegeneration Laboratory (May 2015 -)
  - Researched the genetic and molecular biological mechanisms behind neurodegenerative pathologies, with a primary focus on Alzheimer's disease and ALS using the *C. elegans* model
    - Some Projects Include:
      - Conducted chemotaxis assays on pan-neuronal and muscular expressed amyloid beta *C. elegans* strains and their effects on homeostasis
      - Integrated extrachromosomal GFP fluorescent tagged transgenes into *C. elegans*
      - Testing of lipid soluble amyloid beta binding dyes in *C. elegans*
      - Worked on Ethyl-Methyl-Sulfate (EMS) mutagenesis screens to discover possible suppressor mutations for germ line proliferation genes within distal tip cell affected *C. elegans* strains
      - PCR and primer design
    - Advisor: Christopher D. Link Ph.D.

- Clinical Research intern at the Justin Parker Neurological Institute and Boulder Neurosurgical Associates (January 1, 2016 -)
  - Research for a JPNI sponsored study for a comparison of polyetheretherketone (PEEK) cages vs. femoral cortical bone allograft interbody spacers in transforaminal lumbar interbody fusion.
    - Advisors: Sigita Burneikiene, MD

### **Awards and Scholarships**

- Member of the National Society of Collegiate Scholars (NSCS)
- Member of the University of Colorado Honor Society
- Severance Scholarship Recipient
- Justin Parker Neurological Institute Memorial Scholarship

### **Publications**

- Link C.D., Tomberlin CP, Liachko N.F. (2016). Cold-tolerance is a fast and easy method to identify neuronal dysfunction in *C. elegans*. *Worm Breeder's Gazette*. 20(3):25-28

### **Work Experience**

- 50 hours of shadowing in a surgical setting
  - Orthopedic Surgery, CU Sports medicine
    - Under Dr. Kushal Patel and Dr. Eric McCarty
  - Boulder Neurosurgical Associates
    - Under Dr. Lee Nelson and Dr. Sharad Rajpal
- 30 hours of shadowing in a clinical setting (CU Sports Medicine and Boulder Neurosurgical Associates)
- Scientific Education and Research Institute Medical Summer Camp (2014)
- Sanitary Management and Customer Resource employee at Pelican Lakes Golf Club (2013-2014)

### **Volunteering**

- Town of Windsor Special Olympics Tennis Coach (2013, 2014)
- Windsor Arbor Day Race (2014)
- Youth Basketball Camp Counselor (2012- 2014)

## References

- Christopher D. Link Ph.D. Associate Professor of Integrative Physiology. Institute for Behavioral Genetics.
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- Kushal V. Patel, MD. Orthopedic Sports Medicine Fellow Department of Orthopedics University of Colorado.
  - Email: [kushal.patel@ucdenver.edu](mailto:kushal.patel@ucdenver.edu) Phone: 713.443.1716
- Thomas LaRocca Ph.D. Post-Doctoral Research Fellow at the Laboratory for Molecular Biology of Neurodegeneration and Integrative Physiology Instructor
  - Email: [Thomas.LaRocca@Colorado.edu](mailto:Thomas.LaRocca@Colorado.edu)