

Alex Duman

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EDUCATION

- 2022** (*expected*) **PhD in Biological Sciences**; University of California, Irvine.
Research Advisor: Dr. Emanuel Azizi
- 2019** **M.Sc. in Biological Sciences**; University of California, Irvine.
- 2017** **B.S. in Integrative Biology Honors with Distinction**; University of Illinois at Urbana-Champaign.
Minors: Chemistry, Mathematics and Physics with Certificate in Neuroscience
magna cum laude
Research Advisor: Dr. Rhanor Gillette
Senior Thesis: "Control of Acid Secretion in *Pleurobranchaea californica*"

PUBLICATIONS

Brown JW, Schaub BM, Klusas BL, Tran AX, **Duman AJ**, et al. (2018) A role for dopamine in the peripheral sensory processing of a gastropod mollusc. PLoS ONE 13(12): e0208891.
<https://doi.org/10.1371/journal.pone.0208891>

PRESENTATIONS

1. Undergraduate student mentees.

Duman AJ and Azizi E. Role of hindlimb proprioceptive feedback in the coordinated landing behavior of *Rhinella marina*. Poster Presentation. The Society for Integrative & Comparative Biology. January 2021. Virtual Meeting.

Duman AJ and Azizi E. Landing on compliant surfaces: lessons from an animal model of landing control. American Society of Biomechanics Annual Meeting. August 2020. Virtual Meeting.

Duman AJ and Azizi E. Olympians of controlled deceleration: cane toads stick the landing across surface stiffness. Oral Presentation. The Society for Integrative & Comparative Biology. January 2020. Austin, TX.

Flores E¹, **Duman AJ**, Azizi E. The effects of extrinsic loading on the coordinated landings of *Rhinella marina*. Poster Presentation. The Society for Integrative & Comparative Biology. January 2020. Austin, TX.

(April 2021)

- Huynh G¹, **Duman AJ**, Azizi E. Effects of caffeine on jump performance of *Rhinella marina*. Poster Presentation. The Society for Integrative & Comparative Biology. January 2020. Austin, TX.
- Duman AJ** and Azizi E. How substrate stiffness affects the coordinated landing of *Rhinella marnia*. Oral Presentation. The Society for Integrative & Comparative Biology. January 2019. Tampa, FL.
- Duman AJ**. SPLAT: How substrate compliance influences landing in cane toads. Oral Presentation. Southwest Regional Meeting of Organismal Biologists. November 2018. San Marcos, CA.
- Duman AJ** and Azizi E. Effect of substrate compliance on coordinated landing in *Rhinella marina*. Poster Presentation. American Physiological Society Intersociety Meeting. October 2018. New Orleans, LA.
- Duman AJ**. Control of acid secretion in *Pleurobranchaea californica*. Oral Presentation. The School of Integrative Biology Undergraduate Distinction Symposium. April 2017. Urbana, IL.
- Tran AXV and **Duman AJ**. The octopus: eight arms or eight minds? Poster Presentation. Department of Molecular and Integrative Physiology Retreat. April 2016. Monticello, IL. University of Illinois Undergraduate Research Symposium. April 2016. Urbana, IL.
- Duman AJ** and Tran AXV. Computational mechanisms in the peripheral nervous system of the predatory sea-slug *Pleurobranchaea*. Poster Presentation. Annual Society of Neuroscience Conference. October 2015. Chicago, IL.

TEACHING EXPERIENCE

- 2017 – Present Teaching Assistant**, University of California Irvine, School of Biological Sciences.
Animal Locomotion (S20, S19)
Human Physiology (F19, W19, F19)
Human Physiology Lab (S21, W21, W20, F17, W18, S18).
- 2018 – 2019 Guest Lecturer**, University of California Irvine, School of Biological Sciences.
“*Chordate Phylogeny*” – Evolutionary Biology at Cal. State Univ. Long Beach.
“*Muscle Contractions and Electromyography*” - Human Physiology Lab at UC Irvine
- 2016 – 2017 Teaching Assistant**, University of Illinois Urbana-Champaign, School of Chemical Sciences. CHEM 199, *Introductory Chemistry Merit* (Fall 2016, Spring 2017).
Developed and lead two-hour interactive discussions on general chemistry.

OUTREACH & SERVICE

- 2020** **Graduate Resource Website**
Co-developed website for the Physiology group sharing graduate students' experiences from video interviews I helped film and edit. <https://sites.uci.edu/uciphysiology/>
- 2019** **Lab Tour Leader**
Godinez Fundamental High School with the Society for the Advancement of Chicanos & Native Americans in Science (SACNAS)
UCI-Mt. SAC Research Methods for Future STEM Teachers Workshop Series
- 2018** **Invited Speaker** at the Orange County Chapter of the Society for Conservation Biology where I gave a presentation titled "Amphibian Diversity" focused on declining native amphibian populations in California and worldwide.
Science Fair Judge, Santiago Elementary in Santa Ana, CA.
- 2017** **High School Scientist Mentor**, Rhanor Gillette Lab, University of Illinois Urbana-Champaign.
- 2016 – 2017** **Outreach Coordinator**, designed and lead outreach presentations for Leal Elementary School students.
- 2016** **Co-authored Magazine Article**. A Tran and AJ Duman. The Octopus Project: Raising *Octopus bimaculoides* Hatchlings in Captivity. FishChannel.com.

AWARDS & FUNDING

- 2020** Graduate Federal Work Study Award
- 2020** Charlotte Mangum Student Support Award
- 2020** Edward Steinhaus Teaching Award. School of Biological Sciences at the University of California, Irvine.
- 2019** Best Second Year Talk Award. Winter Ecology & Evolutionary Biology Graduate Student Symposium, University of California Irvine.
- 2017** Provost PhD Fellowship
- 2017** Graduate Dean's Recruitment Fellowship Award
- 2013 – 2017** James Scholar, University of Illinois Urbana-Champaign.
- 2014 – 2017** Dean's List, University of Illinois Urbana-Champaign.
- 2016** Teachers Ranked Excellent by Their Students. CHEM 199 Introductory Chemistry Merit, University of Illinois Urbana-Champaign (Fall 2016).
- 2016** Judy Willis Scholarship
- 2015 – 2016** James Scholar Preble Research Award (Spring 2016 and Fall 2015)

- 2015** Conference Travel Grant, Univ. of Illinois Urbana-Champaign for the Society for Neuroscience
- 2015** Oliver J. Bell Merit Scholarship

MENTEES

1. Completed honors thesis with my guidance

Undergraduates

Marielle Almazan, Uyen (Kim) Nguyen Ishwinder (Isha) Battoo¹, Estefania Flores¹, Gloria Huynh¹

PROFESSIONAL EXPERIENCE

2017 – 2020 Board Member, The Orange County Chapter of the Society for Conservation Biology

President (Sept. 2019 to June 2020) of the Orange County Chapter, organizing 10 executive board team members in creating and hosting outreach, restoration and recreational events across the Southern California area.

Chief Financial Officer (Mar. 2018 to Sept. 2019) managed all financial accounts of the chapter and helped acquire funding through corporate and private donations.

Membership Chair (Sept. 2017 to Sept. 2019) maintained list of active members and organized membership drive events to acquire greater participation from community.

2011 – 2017 Biomechanics Instructor, Sub 5 Performance Center, Arlington Heights, IL.

Collected data on the validity of a novel classification paradigm for categorizing human movement and choosing more efficient intervention strategies for skill acquisition.

Calculated and designed workouts to meet specific needs for dozens of athletes while simultaneously providing individual biomechanical instruction to optimize efficiency and eliminate errors in one-on-one and small group sessions.

Led groups of 50 or more youth athletes through specific exercises to promote motor-skill development.