

Peishu Li

Department of Organismal Biology and Anatomy
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EDUCATION

- 2019-present** **The University of Chicago**
- Ph.D. in the Department of Organismal Biology and Anatomy
 - Expected graduation date: Fall 2024
- 2015-2019** **Duke University**
- *Summa Cum Laude*
 - B.S. with high distinction in Biology and distinction in Earth and Ocean Sciences
 - Cumulative GPA: 3.981

PUBLICATIONS

- 2023** **Li P.**, Ross C. F., Luo Z-X., Gidmark N.J., *Head posture impacts mammalian hyoid position and suprahyoid muscle length: implication for swallowing biomechanics*. Philosophical Transactions of the Royal Society B, in revision
- Stilson, K., Luo Z-X., **Li P.**, Olson S., Ross C.F., *Three-dimensional mandibular kinematics of mastication in the marsupial Didelphis virginiana*, in revision
- Ross C. F., Laurence-Chasen J.D., **Li P.**, Orsbon C., Hatsopoulous N.G., *Biomechanical and Cortical Control of Tongue Movements during Chewing and Swallowing*. Dysphagia, 1-32
- 2022** **Li P.**, Ross C. F., Luo Z-X., *Morphological disparity and evolutionary transformations in the primate hyoid apparatus*. Journal of Human Evolution 162, 103094.
- 2020** **Li P.**, Digest: *Microhabitat use and developmental timing shape anuran limb evolution*. Evolution 74 (9), 2172-2173
- Li P.**, Morse P. E., Kay R. F., *Dental topographic change with macrowear and dietary inference in Homunculus patagonicus*. Journal of Human Evolution 144, 102786
- Wernette B., **Li P.**, Boudreau A., *Sulfides, Native Silver, and associated trace minerals of the Skaergaard Intrusion, Greenland: Evidence of late hydrothermal fluids*. Mineralium Deposita 55 (6), 1197-1214

- 2019** Li P., Smith K. K., *Comparative skeletal anatomy of neonatal ursids and the extreme altriciality of the giant panda*. *Journal of Anatomy* 236 (4), 724-736
- Li P., Boudreau A., *Vapor transport of silver and gold in basaltic lava flows*. *Geology* 47 (9), 877-880

CONFERENCE ABSTRACTS

- 2023** Magallanes I., Li P., Martin T., Luo Z-X., *Exploring the functional significance of tooth root shape, size, and orientation in modern tribosphenic mammals and Jurassic cladotherians*. Society of Vertebrate Paleontology, Cincinnati, OH.
- Li P., Gidmark, N.J., Luo, Z-X., & Ross C.F., *3D hyoid and tongue kinematics reveal mechanism of tongue base retraction during swallowing in Didelphis virginiana*. *Physiology*, 38(S1), 5732906.
- Li P., Gidmark N., Luo Z-X, Ross C. F., *XROMM reveals tongue base retraction mechanism during swallowing in Didelphis virginiana*. Society of Integrative and Comparative Biology, Austin, TX.
- McParland E., Li P., Orsbon C., Ross C.F., Gidmark N.J., *Of mice and models: XROMM's utility in temporomandibular joint disorder model organisms*. Society of Integrative and Comparative Biology, Austin, TX.
- Siddique A., Herrand L. O., Stringer A., McParland E., Orsbon C., Li P., Gidmark N.J., *On the clinical relevance of comparative jaw joint biomechanics across mammals*. Society of Integrative and Comparative Biology, Austin, TX.
- 2022** Li P., Ross C. F., Luo Z-X, Gidmark N., *Head posture and gape impact hyoid position in Didelphis virginiana*. Society of Experimental Biology Annual Meeting, Montpellier, France.
- Li P., Ross C. F., Gidmark N., *Sensitivity of hyoid posture to head-neck angle in the Virginia opossum (Didelphis virginiana)* Integrative and Comparative Biology, 82-8
- 2021** Li P., Ross C. F., Luo Z-X., *Morphological evolution of the primate hyoid apparatus*. Integrative and Comparative Biology 61, E525-E526
- Stilson K. T., Li P., Laurence-Chasen J. D., Olson S., Luo Z-X., Ross C. F., *The role of inferior alveolar nerve afferents in control of jaw kinematics in Didelphis virginiana*. Integrative and Comparative Biology 104-7
- 2019** Li P., Smith K. K., *Comparative skeletal anatomy of neonatal ursids and the altricial-precocial spectrum of therian mammals*. 12th International Congress of Vertebrate Morphology. *Journal of Morphology* 280 (S1). p s165.
- Li P., Morse P. E., Kay R. F., *Dental topographic change and dietary inference in Homunculus patagonicus (Mammalia: Primates)*. The 79th Annual Meeting of Society of Vertebrate Paleontology Program and Abstracts.

2017 Li P., Boudreau A. (2017), *Occurrence of native copper, silver and gold in basaltic lava flows*. GSA Fall Meeting, 22-25 October 2017, Session No. 392

TEACHING EXPERIENCES

2021-2023 Teaching assistant, The University of Chicago

- BIO13123: Biological Evolution
 - Leading bi-weekly small-group discussion sessions and presentations
 - Writing and grading midterm and final exam questions

- ORGB30001: The Human Body (Pritzker School of Medicine)
 - Serving as anatomy lab bay lead overseeing daily peer educator cadaver prosection and first-year medical student dissection work
 - Leading and co-teaching small group learning sessions
 - Preparing cadaver prosection
 - Preparing practical exam questions

2021 Teaching assistant, The University of Chicago

- BIO23262: Mammalian Evolutionary Biology
 - Leading weekly lab sessions on mammal osteology and comparative anatomy
 - Preparing cat cadaver prosection of important musculoskeletal structures
 - Reading and grading student essays
 - Preparing final written exam and practical exam questions

2018-2019 Teaching assistant, Duke University

- EOS 204: Evolution of Life and Earth
 - Leading weekly lab sessions on igneous and metamorphic petrology and mineralogy
 - Leading field trips to geological localities near Jordan Lake, NC
- EOS 201: Earth Materials
 - Leading weekly lab sessions on sedimentary geology, biostratigraphy, taphonomy and paleontology
 - Giving lecture on dinosaur and Mesozoic amniote evolution
 - Leading field trips to geological localities in West Virginia and Virginia

RESEARCH GRANTS

2023 NSF Collaborative Research: Evolution of the hyoid, pharynx and swallowing biomechanics in mammals (\$802,224)

- PIs: Callum Ross, Zhe-Xi Luo, Susan Williams, Rachel Olson
- Contributed to the experimental design, preliminary data collection and visualization, and proposal writing

- 2022** Summer research funds, Integrative Biology program, The University of Chicago (\$1200)
- 2021** Graduate Council Research & Personal Development Fund, The University of Chicago (\$600)
- 2019** Hinds fund, The University of Chicago (\$1,500)
- 2018** SMIF Undergraduate User Program, Shared Materials Instrumentation Facility (\$4,500)
Undergraduate Research Support Travel Grant, Duke University (\$350)
- 2017** Undergraduate Research Support Independent Study Grant, Duke University (\$400)
Undergraduate Research Support Travel Grant, Duke University (\$400)

MENTORSHIP EXPERIENCE

Annie Wang, Chemistry Major, University of Chicago, 2022 - present

Miya Khoo, Biology Major, University of Chicago, 2021 - present

Emily McParland, Biology Major, Knox College, 2021 - 2023

Theodore Covello, Biology Major, University of Chicago, 2020 - 2022

PROFESSIONAL SERVICES

2022-present Biological Sciences Division student representative, Editorial Committee of Medical & Biological Sciences Alumni Association, University of Chicago

2021-present Student member, Evolutionary Morphology Seminar organizing committee, Committee on Evolutionary Biology, University of Chicago

2020-2023 Organizing committee member, Sewall Wright Lecture series, Committee on Evolutionary Biology, University of Chicago

2022 Organizing committee member, Great Lakes Student Paleontology Conference
Organizing committee member, Midwest Regional Meeting for Society of Integrative and Comparative Biology
Student member, Gans Award Committee, Society of Integrative and Comparative Biology

2021 Graduate admission committee student member, Integrative Biology PhD program, the University of Chicago
Public Affairs Committee Student Journalist Internship, Society of Integrative and Comparative Biology

EDUCATION AND OUTREACH EXPERIENCES

2022 Southside Science Festival, The University of Chicago

- Designed interactive poster exhibits on the evolution and biomechanics of Mesozoic feeding system and inner ear

Anatomy lab teaching assistant for Schwab Rehabilitation Hospital residency program

- Prepared human cadaver prosection for resident training on the musculoskeletal anatomy and biomechanics of upper and lower limb

2021 Anatomy lab teaching assistant for Schwab Rehabilitation Hospital residency program

- Prepared human cadaver prosection for resident training on the musculoskeletal anatomy and biomechanics of upper and lower limb

Anatomy lab teaching assistant for orthopedics resident training, the University of Chicago Medical Center

- Prepared human cadaver prosection for resident training on the musculoskeletal anatomy and biomechanics vertebral column and spinal cord

2020 Splash! Chicago instructor

- Designed and taught an interactive course on Mesozoic mammal middle ear evolution for high school students in the Chicago south side

2019 Science Olympiad tutor

- Designed and taught course preparing Science Olympiad participants for competition questions on anatomy and physiology

FELLOWSHIPS AND AWARDS

2022 Wayne Booth Graduate Student Teaching Prize, College, The University of Chicago

2019 James B. Rast Award for Comparative Organismal Biology, Department of Biology, Duke University

Thomas V. Laska Memorial Award, Division of Earth and Ocean Sciences, Nicholas School of the Environment, Duke University

PROFESSIONAL & HONORARY MEMBERSHIPS

2016-present Society of Vertebrate Paleontology

2017-2018 Geological Society of America

2018-present Society of Integrative and Comparative Biology

2018-2019

Society for the Study of Evolution

2018-present

Phi Beta Kappa Society