

José Iriarte-Díaz

Assistant Professor
Department of Oral Biology – College of Dentistry
University of Illinois at Chicago
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Professional Appointments

2014 – present **Assistant Professor**
Department of Oral Biology, University of Illinois at Chicago

2014 – present **Departmental Affiliate**
Department of Bioengineering, University of Illinois at Chicago

2008 – 2013 **Postdoctoral Scholar**
Department of Organismal Biology and Anatomy, University of Chicago

Education

2002 – 2008 **Ph.D.**, Ecology and Evolutionary Biology, Brown University

2000 – 2002 **M.Sc.**, Ecology and Evolutionary Biology, Universidad de Chile

1995 – 1998 **Licenciatura en Ciencias** mención Biología, Universidad de Chile
(equivalent to B.Sc.)

Teaching

University of Illinois at Chicago

2014 – 2018 (fall) Histology, Dentistry Biomedical and Clinical Sciences (DBCS 314 – 316)

2014 – 2018 (spring) Histology, Dentistry Biomedical and Clinical Sciences (DBCS 311 – 313)

2015 – 2018 (fall) Faculty facilitator, Small Group Learning, College of Dentistry

2014 – 2018 (spring) Faculty facilitator, Small Group Learning, College of Dentistry

2014 – 2018 (summer) Course director, Dental and Medical Anthropology within Human Evolution (ANTH 534)

University of Chicago

2013 Lecturer, *Evolutionary Biomechanics of Vertebrate Feeding Systems* (ORGB 34800, graduate students)

2008 – 2013 Lecturer, *Human Anatomy* (ORGB-30001, graduate and medical students)

Brown University

2004 – 2007 Teaching assistant, *Human Morphology* (BI 181, graduate and medical students)

2003 – 2004 Teaching assistant, *Comparative Biology of Vertebrates* (BI 188, undergraduate students)

2002 Teaching assistant, *Biological Design: Structural Architecture of Organisms* (BI 040, undergraduate students)

Universidad de Chile

2001 Guest lecturer ('Terrestrial locomotion in Vertebrates'), *Vertebrate Biology* (EC410, undergraduate students)

2000 – 2001 Lecturer, *Biostatistics* (EC530, undergraduate students)

1999 Teaching assistant, *Biostatistics* (EC530, undergraduate students)

1996 Teaching assistant, *Developmental Biology* (BC220, undergraduate students)

Publications

(* Undergraduate students)

In preparation/In Review

1. **Unfolding Dynamics and Variability of Motor Population Codes during Naturalistic Feeding Behavior**
(in review) *Journal of Neurophysiology*
Liu S, **Iriarte-Díaz J**, Hatsopoulos NG, Ross CF, Takahashi K & Chen Z
2. **Differences in average joint excursion between tetrapod feeding and locomotor systems: How does natural selection walk and chew gum at the same time?**
(in review) *Proceedings of the Royal Society B*
Granatowsky M, **Iriarte-Díaz J**, McElroy E, Laird M, Reilly S, Taylor AB & Ross CF
3. **Morphological determinants of the mandibular axis of rotation in non-human primates**
(in preparation)
Iriarte-Díaz J, Terhune CE, Taylor AB, Orsbon, Ungar P, Healy & Ross CF
4. **The effect of variation of the jaw adductor musculature and cranial morphology on the masticatory performance of primates**
(in preparation)
Iriarte-Díaz J, *Zeno H & *Bushneva Y

Published/Accepted/In press

1. **Constraints and optimality in primate feeding systems**
(in press) Book chapter in *Feeding in Vertebrates: Anatomy, Biomechanics, Evolution*. Edited by V Bels.
Ross CF & **Iriarte-Díaz J**
2. **Functional correlates of the position of the axis of rotation of the mandible during chewing in non-human primates**
Zoology **124**: 106-118 (2017)
Iriarte-Díaz J, Terhune CE, Taylor AB & Ross CF
3. **In vivo bone strain and finite element modeling of a rhesus macaque mandible during mastication**
Zoology **124**: 13-29 (2017)
Panagiotopoulou O, **Iriarte-Díaz J**, Wilshin S, Dechow PC, Taylor AB, Abraha HM, Aljunid SF & Ross CF
4. **Sagittal plane kinematics of the jaw and hyolingual apparatus during swallowing in *Macaca mulatta***
Dysphagia **32**: 663-677 (2017)
Nakamura Y, **Iriarte-Díaz J**, Arce-McShane F, Orsbon C, *Brown KA, *Konecki M, Inoue M, Ross CF & Takahashi K
5. **Speed-dependent modulation of wing muscle recruitment intensity and kinematics in two bat species**
Journal of Experimental Biology **220**: 1820-1829 (2017)
Konow N, Cheney JA, Roberts TJ, **Iriarte-Díaz J**, Breuer KS, Waldman JRS & Swartz SM
6. **Scaling of rotational inertia of primate mandibles**
Journal of Human Evolution **106**: 119-132 (2017)
Ross CF, **Iriarte-Díaz J**, *Platts E, *Walsh T, *Heins L, Gerstner GE & Taylor AB
7. **In vivo bone strain in the mandibular corpus of *Sapajus* during a range of oral food processing behaviors**
Journal of Human Evolution **98**: 36-65 (2016)
Ross CF, **Iriarte-Díaz J**, Reed DA, Steward TA & Taylor AB
8. **Variation in the craniomandibular joint and jaw adductor musculature in reference to the performance and evolution of the mammalian lower jaw**
Evolution & Development **18**: 41-53 (2016)
Reed DA, **Iriarte-Díaz J** & Diekwisch TGH
9. **Bone strain magnitude is correlated with bone strain rate in tetrapods: implications for models of mechanotransduction**
Proceedings of the Royal Society B **282**: 20150321 (2015)
Aiello BR, **Iriarte-Díaz J**, Blob RW, Butcher MT, Carrano MT, Espinoza NR, Main RP & Ross CF
10. **What does feeding system morphology tell us about feeding?**
Evolutionary Anthropology **23**: 105-120 (2014)
Ross CF & **Iriarte-Díaz J**
11. **In vivo cranial bone strain and bite force in the agamid lizard *Uromastix geyri***
Journal of Experimental Biology **217**: 1983-1992 (2014)
Porro LB, Ross CF, **Iriarte-Díaz J**, O'Reilly JC, Evans SE & Fagan MJ
12. **Walking like dinosaurs: Chickens with artificial tails provide clues about non-avian theropod locomotion**
PLoS ONE **9**: e88458 (2014)
*Grossi B, **Iriarte-Díaz J**, Larach O, Canals M & Vásquez RA

13. **In vivo bone strain and finite element modeling of the mandible of *Alligator mississippiensis***
Journal of Anatomy **222**: 195-227 (2013)
Porro LB, Metzger KA, **Iriarte-Díaz J** & Ross CF
14. **The evolution of locomotor rhythmicity in tetrapods**
Evolution **67**: 1209-1217 (2013)
Ross CF, Blob R, Carrier DR, Daley MA, Deban SM, Demes B, Gripper JL, **Iriarte-Díaz J**, Kilbourne B, Landberg T, Polk J, Schilling N & Vanhooydonck B
15. **Kinematic plasticity during flight in fruit bats: individual variability in response to loading**
PLoS ONE **7**: e36665 (2012)
Iriarte-Díaz J, Riskin DK, Breuer KS & Swartz SM
16. **Innovative approaches to the relationship between diet and mandibular morphology in primates**
International Journal of Primatology **33**: 632-660 (2012)
Ross CF, **Iriarte-Díaz J** & Nunn CL
17. **Probabilistic finite element analysis of a craniofacial finite element model**
Journal of Theoretical Biology **300**: 242-253 (2012)
Berthaume MA, Dechow PC, **Iriarte-Díaz J**, Ross CF, Strait DS, Wang Q & Grosse IR
18. **A bird? A plane? No, it's a bat: An introduction to the biomechanics of bat flight**
In: *Evolutionary History of Bats: Fossils, Molecules and Morphology* (Gunnell, G. F. & Simmons, N. B., eds) Cambridge University Press, p. 317-352 (2012)
Swartz SM, **Iriarte-Díaz J**, Riskin DK & Breuer KS
19. **Sources of variance in temporal and spatial aspects of jaw kinematics in two species of primates feeding on foods of different properties**
Integrative and Comparative Biology **51**: 307-319 (2011)
Iriarte-Díaz J, Reed DA & Ross CF
20. **The instantaneous center of rotation of the mandible in non-human primates**
Integrative and Comparative Biology **51**: 320-332 (2011)
Terhune CE, **Iriarte-Díaz J**, Taylor AB & Ross CF
21. **Whole-body kinematics of a fruit bat reveal the influence of wing inertia on body accelerations**
Journal of Experimental Biology **214**: 1546-1553 (2011)
Iriarte-Díaz J, Riskin DK, Breuer KS & Swartz SM
22. **The impact of bone and suture material properties on mandibular function in *Alligator mississippiensis*: testing theoretical phenotypes with finite element analysis**
Journal of Anatomy **218**: 59-74 (2011)
Reed DA, Porro LB, **Iriarte-Díaz J**, Lemberg JB, Holliday CM, Anapol F & Ross CF
23. **In vivo bone strain and finite-element modeling of the craniofacial haft in catarrhine primates**
Journal of Anatomy **218**: 112-141 (2011)
Ross CF, Berthaume MA, Dechow PC, **Iriarte-Díaz J**, Porro LB, Richmond B, Spencer M & Strait D
24. **Biomechanical, respiratory and cardiovascular adaptations of bats and the case of the small community of bats in Chile**
In: *Biomechanics in applications* (Klika, V., ed) *InTech* (2011) doi: 10.5772/23599
Canals M, **Iriarte-Díaz J** & *Grossi B
25. **The effect of body size on the wing movements of pteropodid bats, with insights into thrust and lift production**
Journal of Experimental Biology **213**: 4110-4122 (2010)
Riskin DK, **Iriarte-Díaz J**, Middleton KM, Breuer KS & Swartz SM
26. **Kinematics of the slow turning maneuvering in the fruit bat *Cynopterus brachyotis***
Journal of Experimental Biology **211**: 3478-3489 (2008)
Iriarte-Díaz J & Swartz SM
27. **Quantifying the complexity of bat wing kinematics**
Journal of Theoretical Biology **254**: 604-615 (2008)
Riskin DK, Willis DJ, **Iriarte-Díaz J**, Hedrick TL, Kostandov M, Chen J, Laidlaw DH, Breuer KS & Swartz SM
28. **What explains the trot-gallop transition in a small mammal?**
Journal of Experimental Biology **209**: 4061-4066 (2006)
Iriarte-Díaz J, Bozinovic F & Vasquez RA
29. **Direct measurements of the kinematics and dynamics of bat flight**
Bioinspiration & Biomimetics, **1**: S10-S18 (2006)
Tian X, **Iriarte-Díaz J**, Middleton KM, *Galvao R, *Israeli E, *Roemer A, *Sullivan A, Song A, Swartz SM & Breuer KS
30. **Relative size of hearts and lungs of small bats**
Acta Chiropterologica **7**: 65-72 (2005)
Canals M, Atala C, Grossi B & **Iriarte-Díaz J**
31. **Biomechanical and ecological relationships of wing morphology of eight Chilean bats**
Revista Chilena de Historia Natural **78**: 215-227 (2005)
Canals M, Grossi B, **Iriarte-Díaz J** & Veloso C

32. **Past and present: small mammals of Isla Mocha (Chile)**
Mammalian Biology **68**: 365-371 (2003)
Saavedra B, Quiroz D & Iriarte J
33. **Differential scaling of locomotor performance in small and large terrestrial mammals**
Journal of Experimental Biology **205**: 2897-2908 (2002)
Iriarte-Díaz J
34. **Comparative wing morphology of two species of Chilean bats *Tadarida brasiliensis* and *Myotis chiloensis*, and their biomechanic consequences**
Acta Theriologica **47**: 193-200 (2002)
Iriarte-Díaz J, Novoa FF & Canals M
35. **Functional morphology and geographic variation in the digging apparatus of cururos (*Spalacopus cyanus*, octodontidae)**
Journal of Mammalogy **83**: 145-152 (2002)
Bacigalupe LD, Iriarte-Díaz J & Bozinovic F
36. **Comparación de la morfología alar de los quirópteros *Tadarida brasiliensis* (Chiroptera: Molossidae) y *Myotis chiloensis* (Chiroptera: Vespertilionidae), representantes de dos diferentes patrones de vuelo**
Revista Chilena Historia Natural **74**: 699-704 (2001)
Canals M, Iriarte-Díaz J, Olivares R & Novoa FF

Meeting presentations

1. **Variation in the musculo-skeletal configuration of the skull and the evolution of bite performance in primates**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 165 (s66): 129 (2018)
Iriarte-Díaz J, *Zeno H & *Bushneva Y
2. **Determinants of feeding behavior and food material properties of the deformations of the macaque mandible**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 165 (s66): 198 (2018)
Panagiotopoulou O, Iriarte-Díaz J, Mehari Abraha H, Taylor AB, Wilshin S, Dechow PC & Ross CF
3. **The Effect of Variation of Jaw Muscles and Cranial Morphology on the Evolution of Bite Performance of Primates**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 58: e104 (2018)
Iriarte-Díaz J, *Zeno H & *Bushneva Y
4. **Covariation in primate facial form and jaw movement**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 58: e358 (2018)
Laird MF, Granatosky MC, Iriarte-Díaz J, Reed D, O'Higgins P & Ross CF
5. **Free-body analysis of the masticatory muscles in a caviomorph rodent, *Cavia porcellus***
Experimental Biology, Chicago. *FASEB Journal* 31 (s1): 939.3 (2017)
Druzinsky RE, *Ulm A, Vinyard CJ & Iriarte-Díaz J
6. **Visualizing the attachments and internal architecture of the masseter muscle in *Cavia porcellus* using contrast enhanced micro-CT**
Experimental Biology, Chicago. *FASEB Journal* 31 (s1): 903.7 (2017)
Ulm A, Brennan K, Iriarte-Díaz J, *Lebowicz L, Luciano C, Vinyard CJ & Druzinsky RE
7. **Feeding and locomotor systems differ in joint excursions**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 162 (s64): 60 (2017)
Ross CF, Granatosky MC, Taylor AB, Iriarte-Díaz J & McElroy E
8. **The effect of variation of the jaw adductor musculature and cranial morphology on the masticatory performance of primates**
International Conference of Vertebrate Morphology, Washington DC (2016)
Iriarte-Díaz J, *Akif Y, *Deshpande R & *Al-Hamawi O
9. **Scaling of cycle period in feeding and locomotion systems**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 56: e189 (2016)
Ross CF, Iriarte-Díaz J, Gerstner GE & Taylor AB
10. **Functional constraints of primate feeding: Modeling the effect of ligaments and TMJ morphology**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 156(s60): 175 (2015)
Iriarte-Díaz J, Terhune CE, Taylor AB & Ross CF
11. **Functional significance of the location of the axis of rotation of the mandible**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 156(s60): 271 (2015)
Ross CF, Iriarte-Díaz J, Taylor AB & Terhune CE
12. **Rates of dental microwear in laboratory primates track changes in food items consumed**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 156(s60): 302 (2015)
Teaford MF, Taylor AB, Iriarte-Díaz J, Ross CF & Vinyard CJ
13. **Variation in the craniomandibular joint and jaw adductor musculature in reference to the performance and evolution of the mammalian lower jaw**

- Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 55: e150 (2015)
Reed DA, **Iriarte-Díaz J** & Diekwich TGH
14. **Muscle synchronization and coordination during rhythmic mastication in primates**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 55: e148 (2015)
Ram YV, **Iriarte-Díaz J** & Ross CF
15. **Can we predict mandibular kinematics from patterns of EMG activity in primates?**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 54: e99 (2014)
Iriarte-Díaz J & Ross CF
16. **Walking like dinosaurs: Chickens with artificial tails recreate non-avian theropod locomotion**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 54: e282 (2014)
Grossi B, **Iriarte-Díaz J**, Larach O, Canals M & Vasquez RA
17. **Modulation of strain magnitude in the limb bones of tetrapods**
Society for Integrative and Comparative Biology, Austin, TX. *Int. Comp. Biol.* 54: e4 (2014)
Aiello BR, **Iriarte-Díaz J**, Blob RW, Butcher MT, Espinoza NR, Main RP & Ross CF
18. **Can we predict mandibular kinematics from patterns of EMG activity in primates?**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 151(s58): 148-149 (2014)
Iriarte-Díaz J & Ross CF
19. **Mosaics, mandible morphology, behavior and diet. Where's the variance?**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 151(s58): 225 (2014)
Ross CF & **Iriarte-Díaz J**
20. **La biomecánica del vuelo en murciélagos: una revisión de modelos teóricos, datos experimentales y su efecto en estudios ecomorfológicos**
V Reunión Binacional de Ecología (Argentina & Chile), Puerto Varas, Chile (2014)
Iriarte-Díaz J
21. **Mandibular helical axis during feeding in non-human primates**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 150(s56): 157 (2013)
Iriarte-Díaz J, Terhune C, Taylor AB & Ross CF
22. **Finite element model of the Cebus mandible under different loading conditions**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 150(s56): 236 (2013)
Ross CF, Porro LB, Orsbon C, Stewart T, Taylor AB & **Iriarte-Díaz J**
23. **Electromyography of chimpanzee mastication: Muscle recruitment order**
American Association of Physical Anthropologists, Knoxville, TN. *Am. J. Phys. Anthropol.* 150(s56): 283 (2013)
Walsh T, Platts E, **Iriarte-Díaz J** & Ross CF
24. **3D kinematics, motor control and bone strain during feeding in non-human primates**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 53: e100 (2013)
Iriarte-Díaz J & Ross CF
25. **In vivo cranial bone strain during feeding in the agamid Uromastix geyri**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 53: e169 (2013)
Porro LB, **Iriarte-Díaz J**, O'Reilly J & Ross CF
26. **Granger causality analysis of state dependent functional connectivity of neurons in orofacial motor cortex during chewing and swallowing**
IEEE 6th International Conference on Soft Computing and Intelligent Systems, Kobe, Hyogo, Japan. (Peer reviewed conference - **Best paper award**)
Takahashi K, Pesce L, Best M, **Iriarte-Díaz J**, Kim S, Coleman TP, Hatsopoulos NG & Ross CF
27. **Mandibular helical axis during feeding in non-human primates**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 52: e84 (2012)
Iriarte-Díaz J, Terhune CE & Ross CF
28. **Kinematic and state representations by neuron population activity in M1 orofacial cortex**
Society for Integrative and Comparative Biology. *Int. Comp. Biol.* 52: e21 (2012)
Brown KA, **Iriarte-Díaz J**, Takahashi T, Hatsopoulos NG & Ross CF
29. **Do food material properties impact mandible morphology in primates?**
American Association of Physical Anthropologists. *Am. J. Phys. Anthropol.* 147(54): 252 (2012)
Ross CF & **Iriarte-Díaz J**
30. **Kinematic and state representations by neuron populations in M1 orofacial cortex**
Society for Neuroscience, Washington, DC.
*Brown KA, Takahashi K, *Konecki M, **Iriarte-Díaz J**, Hatsopoulos NG & Ross CF
31. **Sources of variance in temporal and spatial aspects of jaw kinematics in two species of primates**
Society for Experimental Biology, Glasgow, UK.
Iriarte-Díaz J, Reed DA & Ross CF
32. **Determinants of variance in 3D jaw kinematics in two species of primates**
Society Integrative and Comparative Biology. *Int. Comp. Biol.* 51: e62 (2011)
Iriarte-Díaz J, Reed DA & Ross CF

33. **The mandibular instantaneous center of rotation in non-human primates and its relation to gape**
Society Integrative and Comparative Biology. *Int. Comp. Biol.* 51: e137 (2011)
Terhune CE, **Iriarte-Díaz J**, Taylor AB & Ross CF
34. **Various phases of feeding behaviors in macaque monkeys are signaled by multiple bands of local field potentials in Mio**
Society for Neuroscience, San Diego, CA (2010)
Takahashi K, **Iriarte-Díaz J**, Ross CF & Hatsopoulos NG
35. **MI-orofacial neurons modulate activity with stage of chewing sequence and phase of chewing cycle**
Society for Neuroscience, San Diego, CA (2010)
*Brown KA, Takahashi K, **Iriarte-Díaz J**, Hatsopoulos NG & Ross CF
36. **Kinematic analysis of chewing in primates: comparison of analytical methods on the analysis of jaw motion**
Society of Integrative and Comparative Biology. *Int. Comp. Biol.* 50: e81 (2010)
Iriarte-Díaz J & Ross CF
37. **How do bats accelerate?**
Society of Integrative and Comparative Biology. *Int. Comp. Biol.*: e147 (2010)
Riskin DK, **Iriarte-Díaz J**, Middleton KM, Breuer KS & Swartz SM
38. **Mlo neuron activity modulates to phases of the gape cycle during feeding in macaque monkeys**
Society for Neuroscience, Chicago, IL (2009)
Ross CF, Hatsopoulos NG, Konecki M, **Iriarte-Díaz J**, & Takahashi K
39. **Relation between local field potentials in Mlo and feeding behavior in macaque monkeys**
Society for Neuroscience, Chicago, IL (2009)
Takahashi K, Ross CF, Hatsopoulos NG, **Iriarte-Díaz J** & Lemberg J
40. **No net thrust on the upstroke: the effect of wing inertia on body accelerations of fruit bats during flight**
Society of Integrative and Comparative Biology, Boston, MA. *Int. Comp. Biol.* 49: e83 (2009)
Iriarte-Díaz J, Riskin DK & Swartz SM
41. **Scaling of flight characteristics in bats**
Society of Integrative and Comparative Biology, Boston, MA. *Int. Comp. Biol.* 49: e166 (2009)
Swartz SM, Riskin DK, **Iriarte-Díaz J**, Middleton KM & Breuer KS
42. **Aerodynamics of the northern flying squirrel (*Glaucomys sabrinus*)**
Society of Integrative and Comparative Biology, Boston, MA. *Int. Comp. Biol.* 49: e8 (2009)
Bahlman JW, Riskin DK, **Iriarte-Díaz J** & Swartz SM
43. **Effects of body size on the wing kinematics of bats**
Society of Experimental Biology, Marseille, France. *Comp. Biochem. Physiol. A* 150: S78 (2008)
Riskin DK, **Iriarte-Díaz J**, Middleton KM, Breuer KS & Swartz SM
44. **The effect of loading on flight kinematics of bats: a case of kinematic plasticity**
Society of Integrative and Comparative Biology, San Antonio, TX (2008)
Iriarte-Díaz J, Riskin DK & Swartz SM
45. **Proper orthogonal decomposition of bat flight kinematics**
Society of Integrative and Comparative Biology, San Antonio, TX (2008)
Riskin DK, Willis DJ, Hedrick TL **Iriarte-Díaz J**, Laidlaw DJ, Breuer KS & Swartz SM
46. **Detailed kinematic analysis of wind tunnel flight of *Cynopterus brachyotis***
International Bat Research Conference, Merida, Mexico (2007)
Iriarte-Díaz J, Riskin DK & Swartz SM
47. **How many markers should be used to study the complex kinematics of bat flight?**
International Bat Research Conference, Merida, Mexico (2007)
Riskin DK, Willis DJ, **Iriarte-Díaz J**, Laidlaw DH, Breuer KS & Swartz SM
48. **Flying Squirrels don't Glide Steady: Implications for Bat Evolution**
International Bat Research Conference, Merida, Mexico (2007)
Bahlman JW, Riskin DK, Middleton K, **Iriarte-Díaz J** & Swartz SM
49. **Wing structure and the aerodynamic basis of flight in bats**
AIAA Aerospace Sciences Meeting, Reno, NV (2007)
Swartz SM, **Iriarte-Díaz J**, Riskin DK, Song A, Tian X, Willis DJ & Breuer KS
50. **The effect of artificial loads on the straight flight performance of fruit bats**
Society of Integrative and Comparative Biology, Phoenix, AZ. *Int. Comp. Biol.* 46: E67 (2006)
Iriarte-Díaz J
51. **Direct measurements of the kinematics and dynamics of bat flight**
AIAA Fluid Dynamics Conference and Applied Aerodynamics Conference. San Francisco, CA (2006)
Tian X, **Iriarte J**, Middleton KM, *Galvao R, *Israeli E, *Roemer A, *Sullivan A, Song A, Swartz SM & Breuer KS
52. **Unique characteristics of aerodynamics of bat flight evidence from direct visualization of patterns of airflow in the wakes of naturally flying bats**
Society of Integrative and Comparative Biology. Orlando, FL. *Int. Comp. Biol.* 45: 1080 (2005)
Swartz SM, *Galvao R, **Iriarte-Díaz J**, *Israeli E, Middleton K, *Roemer R, Tian X & Breuer KS

53. **Kinematics of turning maneuvering in the Lesser Short-nosed Fruit Bat (*Cynopterus brachyotis*)**
North American Symposium of Bat Research. Sacramento, CA (2005)
Iriarte-Díaz J, Swartz SM & Breuer KS
54. **Kinematics of slow turning maneuvering in bats**
Society of Integrative and Comparative Biology, San Diego. *Int. Comp. Biol.* 44: 575 (2004)
Iriarte-Díaz J & *Lee MM
55. **Can bats actively control the mechanical properties of the wing membrane?**
Society of Integrative and Comparative Biology. San Diego, CA. *Int. Comp. Biol.* 44: 751 (2004)
Swartz SM, Middleton KM, **Iriarte-Díaz J**, *Lee MM, *Wofford JM, Breuer KS & Ritter DA
56. **Trot-gallop transition in a small mammal**
Society of Integrative and Comparative Biology. New Orleans, LA. *Int. Comp. Biol.* 43: 1030 (2003)
Iriarte-Díaz J, Vásquez RA & Bozinovic F
57. **Predator avoidance and body size reduction in the evolution of bird ancestors**
Congreso Latinoamericano de Paleontología de Vertebrados, Santiago, Chile (2002)
Vargas A & **Iriarte-Díaz J**
58. **Análisis comparado del desempeño locomotor de mamíferos terrestres y su relación con el tipo de hábitat**
Reunión Binacional Chileno-Argentina de Ecología, Bariloche, Argentina (2001)
Iriarte-Díaz J
59. **Rol de la masa corporal sobre la energética del forrajeo y la conducta de escape antidepredatoria en pequeños mamíferos**
Reunión Binacional Chileno-Argentina de Ecología, Bariloche, Argentina (2001)
Bozinovic F, Meynard C, **Iriarte-Díaz J** & Vásquez RA
60. **Efecto materno, vía condición de la lactancia, sobre rasgos morfológicos y conductuales en *Octodon degus***
Reunión Binacional Chileno-Argentina de Ecología, Bariloche, Argentina (2001)
Cecchi C, **Iriarte-Díaz J**, Saavedra B, Veloso C & Vásquez RA
61. **Reconocimiento de parentesco y vigilancia cooperativa en el roedor caviomorfo *Octodon degus***
Congreso Iberoamericano de Etología, Universidad de Granada, España (2000)
Vásquez RA, **Iriarte J**, Sartori D, Rodríguez-Gironés MA & Veloso C
62. **Reconocimiento de parentesco en el roedor caviomorfo *Octodon degus***
Sociedad de Ecología de Chile, Concepción. *Biol. Res.* 33: R53 (2000)
Sartori D, **Iriarte J**, Cecchi C, Veloso C & Vásquez RA
63. **Predictores morfológicos del desempeño locomotor en mamíferos terrestres**
Sociedad de Biología de Chile, Pucón. *Biol. Res.* 33: R75 (2000)
Iriarte-Díaz J & Canals M
64. **Morfometría comparada de dos especies de murciélagos chilenos y su correlación con la conducta de vuelo**
Sociedad de Biología de Chile, Pucón. *Biol. Res.* 32: R151 (1999)
Iriarte J, Atala C, Novoa FF & Canals M
65. **A titanosaurid from quebraba La Higuera (late cretaceous), III Region, Chile**
Jornadas Argentinas de Paleontología de Vertebrados, Neuquén, Argentina. *Ameghiniana* 36: 102 (1999)
Iriarte J, Moreno K, Rubilar D & Vargas A
66. **Escalamiento diferencial de la velocidad máxima estandarizada en mamíferos terrestres**
Sociedad de Biología de Chile, Pucón. *Noticiero de Biología* 6: 119 (1998)
Iriarte J
67. **Escalamiento diferencial de una velocidad máxima estandarizada respecto a la masa corporal en mamíferos terrestres**
Congreso Argentino de Paleontología y Paleoestratigrafía, Bahía Blanca, Argentina (1998)
Iriarte J

Invited seminars

- 2019 Center for Research in Human Movement Variability, University of Nebraska at Omaha
- 2018 1st Latin American Craniofacial Biomechanics Conference, Facultad de Odontología, Universidade Estadual de Campinas
- 2013 Department of Anatomy and Developmental Biology, Monash University, Australia
- 2013 Department of Oral Biology, University of Illinois at Chicago
- 2013 Department of Ecology and Evolutionary Biology, Brown University
- 2012 Department of Biology, Saint Louis University
- 2011 Structure & Motion Lab, Royal Veterinary College, London, UK
- 2010 Département d'Ecologie et Gestion de la Biodiversité, Muséum National d'Histoire Naturelle, France
- 2009 Department of Organismal Biology and Anatomy, University of Chicago
- 2008 Department of Organismal Biology and Anatomy, University of Chicago
- 2008 Graduate Program in Organismic and Evolutionary Biology, University of Massachusetts, Amherst

2006 Facultad de Ciencias, Universidad de Chile

Honors and awards

- 2010 FACCTS (France and Chicago Collaborating in the Sciences) Grant. US\$15,500, Project: "Modulation of the mechanics and motor control of feeding behavior of small primates". Co-PI with Callum F. Ross
- 2007 John G. Peterson Fellow, Brown University
- 2007 Dean's Teaching Excellence Award, The Warren Alpert Medical School of Brown University
- 2001 Partial Financing of thesis grant by Departamento de Postgrado y Postítulo of Vicerrectoría de Asuntos Académicos, Universidad de Chile
- 1998 Academic Excellence Scholarship, Facultad de Ciencias, Universidad de Chile

Service to the profession

Reviewer for

Archives of Oral Biology
 Acta Chiropterologica
 Australian Journal of Zoology
 Biological Journal of the Linnean Society
 Cambridge University Press
 Journal of Biomechanics
 Journal of Experimental Biology
 Journal of Mammalogy
 Journal of Morphology
 Journal of the Royal Society Interface
 National Science Foundation (NSF)
 Nature Communications
 Physiological and Biochemical Zoology
 PLOS One
 Revista Chilena de Historia Natural
 South Africa's National Research Foundation (NRF)
 Zoologia
 Zoomorphology

- Panel member for NSF Integrative and Organismal Systems (IOS) program
- Symposium organizer – International Conference of Vertebrate Morphology – Washington DC 2016
- Invited Editor for *Zoology* (special issue)

Thesis advisor

- Hyab Mehari Abraha (PhD – expected 2020) – Co-advisor – Monash University
- Valentina Gomez (PhD – expected 2020) – Co-advisor – Dept. of Biological Sciences, University of Illinois at Chicago
- Joy Peplinski (PhD – expected 2019) – Co-advisor – Dept. of Biological Sciences, University of Illinois at Chicago
- John Polivka (MSc – 2016) – Main advisor – College of Dentistry, University of Illinois at Chicago

Professional memberships

Sociedad de Ecología de Chile (SOCECOL)
 Society of Integrative and Comparative Biology (SICB)
 Society for Experimental Biology (SEB)
 American Association of Physical Anthropologists (AAPA)