

## CURRICULUM VITAE

### ZHE-XI LUO

Department of Organismal Biology  
The University of Chicago  
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#### I. University & Museum Appointments

- 2012-Present Professor  
Department of Organismal Biology and Anatomy & The College  
Committee on Evolutionary Biology  
The University of Chicago
- 2012-Present Research Associate  
Department of Geology, Center of Integrative Science and Education  
Field Museum of Natural History
- 2004-2012 Associate Director of Research and Collections  
2007-2008 Acting Co-Director  
Carnegie Museum of Natural History (Pittsburgh)
- 1996-2012 Curator (2003–12), Associate Curator (1999-2002) Assistant Curator (1996-99)  
Section of Vertebrate Paleontology  
Carnegie Museum of Natural History
- 1996-2012 Adjunct Prof. (2005–12); Asso. Prof. (2000-05) Assist. Prof. (1996-99)  
Departments of Biological Sciences & Geological and Planetary Sciences  
University of Pittsburgh
- 1991-1996 Assistant Professor (Tenure-Track)  
Department of Biology, College of Charleston, South Carolina

#### II. Education & Training

- 1989-1991 Postdoctoral Fellow  
Museum of Comparative Zoology &  
Department of Organismic and Evolutionary Biology  
**Harvard University** - Adviser: Prof. (emeritus) A. W. Crompton
- Ph.D. 1989 University of California at Berkeley, Paleontology  
1983-1988 Museum of Paleontology & Department of Paleontology  
**University of California at Berkeley** - Adviser: Late Prof. W. A. Clemens
- B.S. 1982 **Nanjing University, Nanjing, China**, Geology & Paleontology

#### III. Honors, Awards & Fellowships

**Fellow of American Association for the Advancement of Science**, Elected in 2016  
**Korrespondierenden Mitglied** (Die Paläontologische Gesellschaft, Germany), 2013  
**Humboldt-Forschungspreis** - Humboldt Award for Senior Scientists  
Humboldt Foundation (Alexander von Humboldt-Stiftung), Germany, 2007  
**CAREER Award**, National Science Foundation, USA, 1996  
**Outstanding Overseas Chinese Young Scientist Award**  
Earth Sciences Division, National Natural Science Foundation of China, 2004  
**Outstanding Graduate Student Instructor Award**, UC, Berkeley, 1988  
**Anne Alexander Fellowship**, Museum of Paleontology, UC, Berkeley, 1984-85

**IV. Museum Administrative Experience**

January 2007 **Acting Co-Director**  
-March 2008 **Carnegie Museum of Natural History (Pittsburgh)**

2004-2012 **Associate Director of Research & Collections**  
**Carnegie Museum of Natural History**

**V. Museum Curator Experience (Carnegie Museum of Natural History 1996-2012, partial list)**

Tour leader  
China's Ancient Silk Road (September – October 2010)  
Travel with Carnegie Museums of Pittsburgh Trustees and Donors - a cultivation and development function by Carnegie Museums of Pittsburgh (CMP) and Carnegie Museum of Natural History

Curatorial Participation in Exhibit Development (1996-2008)  
*Dinosaurs In Their Time* Exhibition, Carnegie Museum of Natural History  
Initial scientific and architectural planning; numerous social events and behind-scenes tours for donor cultivation and long-term fund-raising effort; scientific support for dinosaur specimen conservation and remount, fabrication and installation of exhibition

International Exhibit Collaboration  
Extinction of Dinosaurs and Rise of Mammals  
(Preparation during January – June, exhibition July-October, 2008)  
Fukui Prefectural Dinosaur Museum, Fukui, JAPAN

Tour leader  
Archaeology and Paleontology of China's Silk Road (September – October 2002)  
Travel with Carnegie Museums of Pittsburgh Trustees and Donors - a donor cultivation and development function by Carnegie Museums of Pittsburgh (CMP)

Project Coordinator and Curator  
China's Feathered Dinosaurs Exhibit (August-October 1998)  
Carnegie Museum of Natural History

Co-organizer of the Earth Explorers Evening Lecture Series (2002)  
Carnegie Museum of Natural History

NSF-Principal Investigator and Co-convenor  
The US-China Workshop on Geology and Paleontology: Critical Transitions in History of Life (I)  
(Nov. 2005, Washington, DC)  
The China-US Workshop in Paleontology: Critical Transitions In History of Life (II)  
(June 2006, Beijing, China)  
Both workshops jointly sponsored by National Science Foundation of US (NSF) and National Natural Science Foundation of China (NSFC).

Curatorial and collections responsibilities:  
Accumulating and maintenance of collection of fossil vertebrates; supervising preparation laboratory staff; receiving extramural scientific visitors to Carnegie Museum; providing loans of research materials for extramural researchers; field paleontological expeditions; providing consultation for other museums on exhibits.

## **VI. Faculty Service at the University of Chicago (since 2013):**

Faculty Advisory Committee (elected 2018 to 2021)  
Co-chair for Basic Sciences, Faculty Advisory Committee (elected 2020 to 2021)  
Division of Biological Sciences, UChicago

Faculty Awards Committee (2017- 2022) (Chaired by Prof. Ruth Anne Eatock)  
Office of Dean of Faculty Affairs  
Division of Biological Sciences, UChicago

Faculty Committee On Graduate Education Administration 2017-18  
Division of Biological Sciences, UChicago (Chaired by Prof. Victoria Prince)

Faculty Committee On Field and International Research (2016-17)  
Office of Vice President of Research (Chaired by Vice President Professor Eric Isaacs)  
The University of Chicago

Faculty Committee On Appointment and Promotion (COAP) (2014-2018)  
COAP Ad Hoc Review and Panel Member 2020  
Division of Biological Sciences, The University of Chicago

The China-US Paleontology Workshop on Bilateral Collaborative Research  
(April 2015, Field Museum of Natural History; Makovicky (PI) and Luo (Co-PI) of NSF  
workshop grant). Jointly funded by US National Science Foundation (SPG panel) and National  
Natural Science Foundation of China (stratigraphy and paleontology program).

Faculty Coordinators (with Prof. David Jablonski) for Evolutionary Morphology (EvMorph)  
Seminar Series, Committee On Evolutionary Biology (since 2013)

Faculty Advisory Committee, Center In Beijing of University of Chicago (since 2013)

Committee for 2013-15 Reviews of Graduate Programs in Biological Sciences (Co-chairs: Profs.  
Victoria Prince & Richard Fehon)

## **VII. Public Outreach and Science Education (partial list):**

### **2012-Present (at UChicago):**

Mesozoic Mammals of China Exhibition (June – August 2018)  
Public Exhibition of Beijing Museum of Natural History  
(Contribution in Exhibit Development and Scientific Content)

Press Briefing for Discovery of Gliding Jurassic Mammaliaforms  
Beijing Museum of Natural History (China) (2017)

Public lecture at Florida Museum of Natural History (Gainesville, Florida) (2016)

Public lectures at Chicago Cultural Center and Chicago Public Libraries (multiple lectures)

Public lectures at Harvard Museum of Natural History & UChicago Center In Beijing (2013)

Popular article “Rise of Mammals – Our ancestors began to flourish long before dinosaurs died out” (by S. L. Brusatte and Z-X Luo) Scientific American June 2016 Issue – Cover Story and Feature Article.

Over 100 press interviews on new discoveries of early fossil mammals in UChicago, since 2013.

Participation in, and scientific content contribution to Sir David Attenborough's BBC Documentary "Dawn of Mammals" (filmed in China in January, and broadcast in UK by BBC-2 in Sept-December 2013).

Contribution on scientific content on early mammals to Prof. Neil Shubin's Documentary Series "Your Inner Fish" (by Public Broadcasting System and Howard Hughes Medical Institution, 2012-2013).

Participation in, and content contribution to the popular scientific program by NHK Sciences Program on Mammalian Evolution and Mammalian Brains (programs broadcast nationally in Japan in 2015)

Participation in and content contribution to TV documentary series "A New Prehistory" of French-German Television Network Channel Arté (Produced by Saint Thomas Productions of Marseille, France; filmed in China in 2013 and released in 2016 in Europe).

1997-2012 (at Carnegie Museum):

More than 50 popular public scientific lectures as a museum curator and paleontologist; for non-scientific audience on the topics of Mesozoic mammal evolution, fossil cetaceans, and field exploration for Mesozoic vertebrates.

Consultation for popular scientific magazines and other media organizations (reviews and critiques requested by journalists and science writers on popular science articles, providing background scientific information, etc., partial list): National Geographic Magazine; Scientific American; Discover Magazine; Carnegie Magazine; Earth Magazine; Geotimes; Focus; Nature (News Dept); Science (News Dept); New Scientist; Science News, BBC (background research department) and news features; National Public Radio; CBC Radio; ABC News; CNN; Discover Science Channel; Der Spiegel; Washington Post; New York Times, San Francisco Chronicle, NHK (Japanese Broadcasting Corporation), Discovery Science Channel (USA), The History Channel, etc.

**Notable outreach work with popular media:**

- National Geographic Magazine, Cover feature of the April 2003 issue ("Rise of Mammals")
- NHK (Japan National Broadcasting Corporation)  
Mammals vs. Dinosaurs – Secrets of Mammalian Survival  
(2007 Nomination for the International Emmy Award – Documentaries).  
  
Mammals vs. Dinosaurs (90 minutes scientific TV program, distributed by NHK and Discovery Science Channel). This TV program was aired nationwide in Japan in 2006 – 07. During 2007-08 this program was aired in US by the Science Channel (US); in France by French Televisions Distribution/France5; in Canada by Discovery Channel Canada and National Film Board of Canada.
- Hearing Evolution In Early Mammals, scientific TV program by A&E History Channel
- NHK (Japan National Broadcasting Corporation)  
Evolution of Mammals  
(2010 Scientific TV program in two episodes; broadcast in Japan in July and August 2010).

1997-2015: about 400 interviews with international, national and local press and news media organizations regarding scientific discoveries of early mammals, Carnegie Museum's new exhibit *Dinosaurs In Their Time*, on various museum affairs, on the major new discoveries of

early mammal fossils, on behalf of the Carnegie Museum of Natural History and the University of Chicago.

### **VIII. Extramural Research Grants**

- 2023-26 National Science Foundation Grant (NSF-IOS 2315501)  
Awarded to Callum F. Ross (PI-PD UChicago), Zhe-Xi Luo (Co-PI UChicago) and Susan Williams (PI Ohio University)  
Project Title: Collaborative Research: Evolution of the hyoid, pharynx and swallowing biomechanics in mammals.
- 2017-23 National Science Foundation Grant (BRS-TCN 1702421)  
Awarded to John Bates (PI), Zhe-Xi Luo and Ben Marks (co-PIs). Project Director: David C. Blackburn (University of Florida)  
Project title: Digitization TCN: Collaborative Research: oVert: Open Exploration of Vertebrate Diversity in 3D.
- 2014-15 National Science Foundation Grant (EAR 01450143)  
Awarded to Peter Makovicky (PI), Zhe-Xi Luo (co-PI) (P. Makovicky, Z.-X. Luo & P. Herendeen as steering committee)  
Project Title: China-US Collaborative Research On Critical Transitions In History Of Life (workshop at Field Museum of Natural History, Chicago).
- 2006-2012 National Science Foundation Grant (EF0629959)  
Awarded to Zhe-Xi Luo & John R. Wible (co-PI's)  
Carnegie Museum of Natural History (PI-institution)  
Project title: ATOL (Assembly of Tree of Life): "Collaborative Research: Resolving Mammalian Phylogeny with Genomic and Morphological Approaches"  
Team proposal with five PI institutions (five PI's and about 20 co-PIs): AMNH (the lead institution) (PI & PD – Michael J. Novacek), CMNH (PI institution), Stony Brook University (PI institution), Texas A & M University (PI institution), and University of California at Riverside (PI institution).
- 2007-2009 Australian Research Council (Linkage Project LP0776851)  
Awarded to Steven W. Salisbury (Chief Investigator, University of Queensland), M. C. Lamanna (Principal Investigator), and Z.-X. Luo (Principal Investigator)  
Project Title: "Small vertebrates from the Albian-Cenomanian of Queensland: testing hypotheses of provincialism among Australia's mid-Cretaceous dinosaur faunas"
- 2005-2007 National Science Foundation Grant (EAR 0534155 – EAR0634718)  
awarded to Zhe-Xi Luo (PI), Y. Jin, D. H. Erwin & S. A. Bowring (co-conveners)  
Project Title: China-US Collaborative Research On Critical Transitions In History Of Life (workshops).
- 2004-2006 National Natural Science Foundation of China (NSFC) (Grant 40328004)  
"Outstanding Overseas Chinese Young Scientist Award" to Zhe-Xi Luo (PI)  
Project Title: Evolutionary studies of early mammals.
- 2003-2007 National Science Foundation Grant (DEB 0316558)  
awarded to Zhe-Xi Luo (PI)  
Project Title: New mammals of Early Cretaceous and Their Implications for Deep Mammalian Phylogeny.
- 2001-2002 National Geographic Society Grant (7042-01)  
awarded to Zhe-Xi Luo (PI) & Hai-Lu You (co-PI).  
Project Title: Fossil Vertebrates of the Lower Cretaceous in Gansu, Northwestern China.

- 1996-2001 National Science Foundation Grant (DEB 95-27892)  
awarded to Zhe-Xi Luo (PI)  
Project title: CAREER: A 3-D Graphic Study of the Skull Evolution in Early Mammals and Advanced Cynodonts.
- 1994-1998 National Science Foundation Grant (DEB 94-19898)  
awarded to Zhe-Xi Luo (PI)  
Project Title: Phylogenetic Analyses of the Cetacean Basal Cranium and Inner Ear, and Study of the Cetacean Relationships.
- 1994-96 National Geographic Society Grant (5338-94)  
awarded to Zhe-Xi Luo (PI) & Xiao-Chun Wu (co-PI)  
Project Title: Fossil Vertebrates of the Lower Lufeng Formation, Yunnan, China.
- 1994-95 NSF REU Summer Research Funding  
(Through Medical University of South Carolina, as the Faculty Adviser to Students Marc Klingshirn and Jonathan H. Geisler).  
Project Title: Inner ear Structures of Ungulates and Whales.
- 1993 Bio-Engineering Alliance of South Carolina Grant (1993)  
awarded to Zhen Zhang & Zhe-Xi Luo.  
Project Title: 3-D Model of the Mammalian Cochlear Basilar membrane.
- 1989-1992 National Science Foundation Grant (DEB 8818098-DEB9020034)  
awarded to A. W. Crompton (PI), Zhe-Xi Luo (Postdoctoral associate)  
Project Title: The Cranial Structure of Chinese Liassic Mammals and Tritylodontids

#### **IX. Intramural Funding**

1996-99 Netting's and O'Neil Research Funds (Carnegie Museum of Natural History) (4 research proposals) for 1997-1999 field explorations of various vertebrate fossil sites of Mesozoic in China and India.

1991-94 Faculty Research & Development Committee Grants (College of Charleston) and Department of Biology Faculty Research funds (several research proposals) for evolutionary studies of the inner ears in Mesozoic mammals and Tertiary cetacean mammals.

#### **X. Field Exploration in Paleontology and Geology**

##### **As Team Leader:**

- 1997- Lower Cretaceous (Xinminbao Group), Gansu Province, China  
2002 Support: National Science Foundation, National Geographic Society, Carnegie Museum O'Neil Funds (sponsored by Z.-L. Tang of Institute of Vertebrate Paleontology and Paleoanthropology [IVPP] and X. Zhang of Gansu Provincial Museum).
- 1997 Cretaceous beds of Inner Mongolia, China  
Support: Carnegie Museum O'Neil Funds (sponsored by Z.-M. Dong of IVPP).
- 1988, Upper Triassic and Lower-Middle Jurassic Red Beds  
1994, (Yipinglang Group, Lower and Upper Lufeng Formations)  
1995, Yunnan Province, China  
2000 Support: National Geographic Society; Carnegie Museum O'Neil Funds; National Science Foundation (sponsored by A.-L. Sun and Z.-M. Dong of IVPP).
- 1995, Jurassic Beds (Zhenzhuchong and Shaximiao Formations)  
1999 Sichuan Province, China

Support: National Geographic Society, National Science Foundation (sponsored by Z.-M. Dong of IVPP).

- 1999 Upper Cretaceous (Intertrappean Beds) and Lower Jurassic (Kota Formation)  
Andhra Pradesh, India.  
Support: Carnegie Museum O'Neil Funds (sponsored by Geological Survey of India)
- 1992- Tertiary marine and coastal deposits & cetacean faunas  
1996 South Carolina, North Carolina, Maryland, and Virginia  
Support: National Science Foundation; Faculty Grants from College of Charleston

**In collaboration with other investigators:**

- 2016 Middle – Late Jurassic Tiaojishan Formation of Inner Mongolia, Liaoning and Hebei  
-2011 Provinces of China (in collaboration with Dr. Qingjin Meng, Beijing Museum of Natural History, and Dr. Qiang Ji, Chinese Academy of Geological Sciences, Beijing)
- 2011 Early Cretaceous Yixian and Fuxin Formations of Liaoning Province, China  
-1999 Support (to Luo): National Science Foundation (USA), National Geographic Society (Sponsored by Professor Qiang Ji of National Geological Museum of China, and Chinese Academy of Geological Sciences, Beijing)
- 2004 Late Jurassic Morrison Formation in Colorado, USA (in collaboration with John Wible)  
-1999 Support: National Science Foundation and Carnegie Museum of Natural History
- 2008 Cretaceous Winton Formation, Queensland, Australia  
Collaboration with Dr. Steve Salisbury (Team leader, University of Queensland) and Dr. Matthew Lamanna (Carnegie Museum).  
Support: Australian Research Council (to Salisbury), National Science Foundation (to Luo), Carnegie Museum O'Neil Funds (to Lamanna).
- 2007 Late Jurassic Morrison Formation in Wyoming, USA (Spring Creek Preserve of University of Pittsburgh (with Matthew Lamanna)  
Support: University of Pittsburgh and Carnegie Museum of Natural History
- 2000 Paleocene-Eocene of Tibet, China (also reconnaissance of the Mesozoic and Pliocene) (K. C. Beard, team leader; D. Gebo and Z.-X. Luo, team members; sponsored by Y.-Q. Wang and T. Qi of IVPP)

**Field experience in paleontology and geology as graduate and undergraduate student:**

Cretaceous and Paleocene in Montana and Wyoming, USA (1983, 1986, 1988).

Geological mapping and field stratigraphy in the Paleozoic and Mesozoic in southeastern China (Jiangsu, Zhejiang, Anhui Provinces) (1978, 1979, 1981).

**XI. Experience in University Teaching**

Mammalian Evolutionary Biology (since 2014)  
The University of Chicago  
Biological Sciences Collegiate Division  
(Dr. Kenneth D. Angielczyk as co-instructor, Field Museum of Natural History)

Natural History of Medicine (elective course for Medical Graduate curriculum, 2006-2012)  
Taught by museum curators at the Carnegie Museum for the MD graduate students of University Pittsburgh School of Medicine (one of the four co-instructors)

Evolutionary Biology (Adjunct Assist./Assoc./Full Professor – Univ. of Pittsburgh 1998-07)  
Vertebrate Comparative Anatomy (Assistant Professor--College of Charleston 1991-96)  
Gross Human Anatomy (Assistant Professor--College of Charleston 1991-1994)  
General Biology (Assistant Professor--College of Charleston 1994-1995)  
Comparative Anatomy and Physiology (Teaching Fellow--Harvard, 1990)  
Vertebrate Paleontology (Teaching Fellow--Harvard, 1989)  
Introductory Biology (Teaching Fellow--Harvard, 1988)  
Functional Evolution of Vertebrates (Teaching Assistant--Berkeley, 1984, 1985, 1986)  
Vertebrate Paleontology (Teaching Assistant--Berkeley, 1984, 1985, 1986)  
Macroevolution (Teaching Assistant--Berkeley, 1985)  
Principles of Systematics (Teaching Assistant--Berkeley, 1987)  
Phylogeny and Systematics of Tetrapods (Teaching Assistant--Berkeley, 1987)  
Phylogeny and Systematics of Mammals (Teaching Assistant--Berkeley, 1985, 1988)  
Archaeological Osteology (Teaching Assistant--Berkeley, 1988)

## **XII. Sponsorship for Postdoctoral Fellows & International Scientists (Partial list)**

### **Supervisor for postdoctoral fellows**

Dr. Julia A. Schultz (2015- 2017)  
DAAD Postdoctoral Fellowship  
(Co-sponsor with Callum Ross)

Dr. Bhart-Anjan S. Bhular (2014 to 2015)

Dr. Michelle Spaulding (2011 - 2012)  
Rea Postdoctoral Fellowship of Carnegie Museum  
(Co-adviser with John Wible)

Dr. Lucja Fostowicz-Frelik (2008 to 2009)  
Fellowship from Polish Foundation for Science  
Carnegie Museum of Natural History, Pittsburgh, PA  
(co-advisor with Mary R. Dawson)

Dr. Sean P. Modesto (2000-2002)  
Rea Postdoctoral Fellowship of Carnegie Museum  
Carnegie Museum of Natural History, Pittsburgh, PA.

### **Sponsorship for international visiting scientists at UChicago and Carnegie Museum:**

Professor Lucja Fostowicz-Frelik  
Institute of Paleobiology (Warsaw), Polish Academy of Sciences (Poland)  
Fellowship for Sabbatical from Polish Academic Exchange Foundation  
Planned for: August 2022-July 2023

Professor Dr. Thomas Martin  
Institute of Geosciences, University of Bonn (Germany)  
Sabbatical April - August 2022

Professor Guntupalli V. R. Prasad  
Fulbright-Nehru Faculty Fellowship, University of Delhi (India)



Sabbatical: Sept 2021 – March 2022

Mr. Meng Chen (China/US: 2013, 2014)

Max Kade Foundation Fellowship for Faculty Researchers  
Deutsche Forschungsgemeinschaft (DFG)  
Carnegie Museum of Natural History, Pittsburgh, PA

**Carnegie Museum of Natural History:**

Mr. Robin Cristofari (France: 2011)  
Dr. Da-Qing Li (China: 2008)  
Dr. Chongxi Yuan (China: 2006-07, 2009)  
Prof. Jose F. Bonaparte (Argentina: 2004)  
Prof. Dr. Qiang Ji (China: 1998, 1999, 2000, 2002, 2003)  
Prof. Zhiming Dong (China: 1997, 1999)  
Prof. Peiji Chen (China: 2000, 2005)  
Mr. Zhilu Tang (China: 1999; 2001)  
Dr. P. Yadagiri (India: 1997)  
Mr. Guihai Cui (China: 1998)  
Mr. Fakui Zhang (China: 1997).

**XIII. Experience in Graduate Training and Education**

**Current Graduate Students in UChicago (chronological order):**

**Advisor:**

Mr. Peishu Li (since 2019)  
(Zhe-Xi Luo and Callum F. Ross, co-advisors)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Mr. Isaac Magallanes (since 2020)  
(Major advisor; Kenneth D. Angielczyk, co-advisor)  
Committee On Evolutionary Biology, UChicago

Mr. Alec Wilken (since 2020)  
(Zhe-Xi Luo and Callum F. Ross, co-advisors)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

**Member of Graduate Committees:**

Sarah Saxton Strassberg (Kenneth Angielczyk, major adviser)  
Committee member (since 2022)  
Committee On Evolutionary Biology, UChicago

Laura Hunter (Zeresenay Alemseged, major adviser)  
Committee member and chair (since 2022)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Hannah Farrell (Zeresenay Alemseged, major adviser)  
Committee member (since 2021)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Mr. Weldeyared Hailu Reda (Zeresenay Alemseged, major adviser)  
Committee chair (since 2020)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Alexa Wimberly (Graham Slater, major adviser)  
Committee member (since 2020)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Mr. Tristan Reineke (Kenneth D. Angielczyk, major advisor)  
Committee member (since 2020)  
Committee On Evolutionary Biology, UChicago

Anna Wisniewski (Graham Slater, major advisor)  
Committee member (since 2020)  
Paleobiology, Department of Geophysical Sciences, UChicago

Rotational Graduate Students and other affiliated students in Luo's UChicago Lab  
Alec Wilken (since 2021); Peishu Li (since 2020); Aileen Tartanian (2018-19); Kelsey Stilson (2017); Stephanie Baumgart (2015).

#### **Previous Graduate Students of University of Chicago:**

Dr. Kelsey T. Stilson (PhD 2021)  
Committee member (Callum Ross, major advisor)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Dr. Robert W. Burroughs (Ph.D. 2021)  
(Major Advisor Kenneth Angielczyk; Co-advisor Zhe-Xi Luo)  
Committee On Evolutionary Biology, UChicago

Dr. Jacqueline K. Lungmus (Ph.D. 2020)  
Kenneth Angielczyk (advisor) and Zhe-Xi Luo (co-Advisor)  
Integrative Biology Graduate Program, Dept of Organismal Biology and Anatomy, UChicago

Dr. David M. Grossnickle (Ph.D. 2018)  
Zhe-Xi Luo (advisor) and Kenneth Angielczyk (co-Advisor) (2013-2018)  
Committee On Evolutionary Biology, University of Chicago

Committee, member (Major advisors: Dr. Robert Martin and Dr. Corrie Moreau)  
Dr. Lu Yao (Ph.D. 2016)  
Committee On Evolutionary Biology, UChicago

#### **Previous Graduate Students in Other Institutions**

Dr. Elsa L. Panciroli (Ph.D. 2020)  
National Museum of Scotland and School of Earth Science, University of Edinburgh, UK  
(co-supervisor and external member of advisory committee)

Dr. Daniel J. Urban  
External Member of Ph.D. Dissertation Committee (Ph.D. 2016)  
Department of Animal Sciences  
University of Illinois Urbana-Champaign

Dr. Jun Liu  
External examiner of Ph.D. Dissertation (Ph.D. 2012)  
Department of Earth Sciences  
The University of Hong Kong, Hong Kong, China

Dr. Eric G. Ekdale  
Member of Ph.D. Advisors Committee (Ph.D. 2009)  
Laboratory of Vertebrate Paleontology  
Department of Geological Sciences

University of Texas at Austin, TX

Dr. Vera Weisbecker (Ph.D. 2008)  
Member of Ph.D. Thesis Examination Committee  
School of Biological, Earth & Environmental Sciences  
University of New South Wales  
Sydney, Australia

Dr. Anne M. Musser (Ph.D. 2006)  
Member of Ph.D. Thesis Examination Committee  
School of Biological, Earth & Environmental Sciences  
University of New South Wales  
Sydney, Australia

Dr. Thomas E. Macrini (Ph.D. 2006)  
Member of Ph.D. Advisors Committee  
Department of Geological Sciences  
University of Texas at Austin, TX

Dr. Sandrine Ledevze (Ph.D. 2005)  
Member of Doctoral Thesis Examination Committee  
Doctorate du Museum National d'Histoire Naturelle  
Paris, France

Dr. Hai-Lu You (Ph.D. 2002)  
Member of Ph.D. Advisors Committee (1998-02)  
Department of Earth and Environmental Science  
University of Pennsylvania, PA.

Dr. Joern H. Hurum (D. Sc. 1997)  
Member of Doctor of Science Dissertation Examination Committee (1997)  
Museum of Paleontology  
University of Oslo, NORWAY.

Major Adviser to M.S. graduate students:

Mr. Meng Chen (M.S. 2007) (co-adviser)  
Department of Earth Sciences  
Nanjing University (China)

Katherine K. Marsh (M.S. 1996)  
Elizabeth R. Tipton-Jones (M.S. 1996)  
Marine Graduate Biology Program, University of Charleston (South Carolina)

Member of Graduate Advising Committee to M.S. graduate students (10):  
Timothy Zimmermann, Augustine DiNovo, Daniel Karen, Ming Sun, Eric Zolman,  
Sandy Bricks, Wendy Moore, Shane Guan, Todd Haney, Dorian McMillan.  
Marine Graduate Biology Program, University of Charleston (South Carolina)

#### **XIV. Advisor to Undergraduates: Senior Thesis or Lab Experience (UChicago)**

Faculty Advisor for Paleontology Club (SRO student-run-organization, UChicago)  
(since 2015)

Miya Khoo (since 2021) (Ecology-Evolution Fellowship)  
William Currey (2019-20, Metcalf Fellowship, Ecology-Evolution Fellowship)  
Andrew Traynor (2019-20, Metcalf Fellowship)

Ryan Phillips (2019, Metcalf Fellowship)  
Kailin Wu (2018, Metcalf Fellowship)  
Spencer Pevsner (2017-18, BS Thesis on Metcalf Fellowship, Ecology-Evolution Fellowship)  
Alexander Okamoto (2017, Metcalf Fellowship)  
James G. A. Wauer (2017, BS Thesis)  
R. Benjamin Sulser (2016, BS Thesis and Metcalf Fellowship)  
Emma Wu (2016, UChicago Mellon Summer Fellowship Recipient from Bryn Mawr College)  
Mark Juhn (2015 Metcalf Fellowship)  
Spiro Sullivan (2015 BS Thesis)  
Undergraduate research experience in Luo lab (Dawn Mitchell 2014; Maria Vitari 2016;  
Katarina Keating 2018).

#### **XV. Memberships in Professional Societies**

Deutsche Paläontologische Gesellschaft (2013-Present, Honorary Corresponding Member)  
Society of Vertebrate Paleontology (1984-Present)  
Society of Study of Mammalian Evolution (1992-present)  
Sigma Xi (1991-present)  
Paleontological Society (1994-present)  
Geological Society of America (2005 – present)

#### **XVI. Extramural Academic & Professional Services (partial list):**

National Museum of Natural History  
Smithsonian Institution, Washington DC  
Member of Advisory Board (elected in 2019)

Chair of the Science Committee  
National Museum of Natural History Advisory Board (since 2021)

Member of Curatorial Search Committee (2019)  
Center for Integrative Sciences  
Field Museum of Natural History

Member of Curatorial Promotion Committee (2017)  
Center for Integrative Sciences  
Field Museum of Natural History

Member of the Editorial Board (2010 – 2016)  
Proceedings of the Royal Society (London) – Biological Sciences (Series B)

Panel Members of National Science Foundation (US)

Member of the Advisor Program for Chinese Academy of Sciences  
Appointment since 2013

The 2012 External Advisory Committee (Chair)  
High-Resolution Computed Tomography Laboratory (UTCT)  
The Jackson School of Geosciences and National Science Foundation  
University of Texas at Austin

Co-Chair of Host Committee  
The 70<sup>th</sup> Annual Meeting of Society of Vertebrate Paleontology  
Pittsburgh, PA (Hosted by Carnegie Museum of Natural History)

Invited external reviewers  
The MacArthur Foundation (Chicago, USA)

Invited external reviewers (Multiple reviews)  
National Science Awards  
Ministry of Science and Technology  
The Government of China

Member of the 2009 International Review Committee  
Institute of Zoology (Beijing)  
Chinese Academy of Sciences  
(convened by the Administration of Chinese Academy of Sciences)

Member of International Committee  
The 2004 Institutional Review  
The Nanjing Institute of Geology and Palaeontology  
Chinese Academy of Sciences (CAS)  
(convened by Administration of Chinese Academy of Sciences)

Member of Editorial Board (2005 to present)  
Geological Journal of Chinese Universities  
(Nanjing University, China)

Member of Editorial Board (2005 to present)  
PalaeoWorld  
(Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences)  
(Published by Elsevier, Netherlands)

Member of the Lazendorf PaleoArt Committee (2004-2008)  
Society of Vertebrate Paleontology

Member of Editorial Board (2003 to present)  
Journal of Mammalian Evolution (Springer, Netherlands)

Associate Editor and Editor (2001- 2009)  
Journal of Vertebrate Paleontology

Member-at-Large & Executive Committee (1998-2001)  
Society of Vertebrate Paleontology (Elected 1998)

Member of Editorial Board (1997 to present)  
Vertebrata Palasiatica  
(Institute of Vertebrate Paleontology & Paleoanthropology, Chinese Academy of Sciences)

Foreign Correspondence Editor (1996-2000)  
News Bulletin, Society of Vertebrate Paleontology

Member of Development Committee (1994-1996)  
Society of Vertebrate Paleontology

Chairman of Graduate Admission Committee (1994-1996)  
Marine Biology Graduate Program  
University of Charleston, South Carolina

Member of Faculty Research and Development Committee (1992-1994)  
College of Charleston

Member of Faculty Search Committees (for three searches)  
Department of Biology, College of Charleston

Various academic and administrative committees (more than 10 during 1991-1995)

Department of Biology and Grice Marine Biology Laboratory  
College of Charleston

Member of Curator Search Committees (for five searches)  
Carnegie Museum of Natural History

Various museum and administrative committees (more than 50 during 1996-2012)  
Carnegie Museum of Natural History

## **XVII. External Reviewers for Publications and Granting Agencies (Partial list)**

**General Scientific Journals** (1997-Present), reviewed more than 100 manuscripts for three leading scientific journals) – NATURE (UK); SCIENCE (USA); Proceedings of National Academy of Sciences (USA).

**Major Research Journals** (As of 2022, reviewed for the following journals, alphabetic order) – Acta Geological Sinica (China), Acta Palaeontologica Polonica (Poland); American Naturalist; Anatomical Record (USA); Biological Reviews (UK); Biology Letters (UK); BMC-Biology (UK); BMC – Evolutionary Biology (USA); Canadian Journal of Earth Sciences; Chinese Science Bulletin (China); Cladistics (USA); Comptus Rendus (PalEvol) (France); Current Biology; Evolution; Journal of Evolutionary Biology; EvoDevo (UK); Evolution and Development (USA); Geology (USA); Frontier In Genetics; Historical Biology (UK); Italian Journal of Zoology (Italy); Journal of Anatomy (UK); Journal of Mammalogy (USA); Journal of Mammalian Evolution (USA); Journal of Morphology (USA); Journal of Paleontology (USA); Journal of Systematic Palaeontology (UK); Journal of Vertebrate Paleontology (USA); Lethaia (Sweden); Molecular Phylogenetics and Evolution; Nature-Communications (UK); Nature-Ecology and Evolution (UK); Nature-Scientific Reports (UK); Science of Nature (Naturwissenschaften) (Germany); Palaeoecology, Paleoclimatology, Paleobiogeography (Netherlands); Paläontologische Zeitschrift (Germany); Palaeontologia polonica (Poland); Palaeontology (UK); Paleobiology (USA); Papers In Palaeontology (UK); PLoS Biology (USA); PLoS-One (USA); Proceedings of Royal Society of London–B (UK); Progress In Natural Science (National Natural Science Foundation, China); Royal Society Open Science (UK); Systematic Biology (USA); TREE - Trends in Ecology & Evolution (UK); Zoological Journal of Linnean Society (UK).

**Specialty Research Journals** (As of 2022, reviewed for the following journals, in alphabetic order) – American Museum Novitates (USA); American Museum of Natural History Bulletin (USA); Ameghiana (Argentina); Aquatic Mammals; Bulletin of Museum of Comparative Zoology (Harvard University, USA); Geodiversitas - Bulletin National Muséum d’Histoire Naturelle, Paris (France); Geologica Belgica (Belgium); PaleoBios (Berkeley, CA); Palaeontologica Electronica (palaeo-electronica.org); Palaeobiodiversity and Palaeoenvironments (Senckenbergische Naturforschende Gesellschaft) (Germany); Palaeontologia Africana (South Africa); PaleoVertebrata Sinica (China); Revista Brasileira De Paleontologia (Brazil),

Smithsonian Contributions to Zoology (Washington, DC, USA); Vertebrata Palasiatica (Chinese Academy of Sciences, China); Vertebrate Zoology (Senckenberg Gesellschaft für Naturforschung, Germany); Zoological Research (Kunming Institute of Zoology, Chinese Academy of Sciences, China).

**Publishing Agencies & Presses** (As of 2022; reviewed about 30 book-length manuscripts and book proposals, and many manuscripts of chapters for edited books or symposium proceedings) – Blackwell Publishing (Oxford, UK); Cambridge University Press (UK); Columbia University Press (New York); Harper-Collins Academic (London); The Indiana University Press (Bloomington, IN); The Johns Hopkins University Press; Plenum Press (New York); Princeton University Press; Springer-Verlag (New York and Hamburg); Smithsonian Institution Press (Washington, DC); The University of Chicago Press (Chicago); University of California Press (Berkeley, CA), World Scientific Publishings (New Jersey).

**Funding Agencies** (As of 2022, reviewed grant proposals or awards for following funding agencies)

USA: National Science Foundation, USA (for seven different panels); the U.S. Civilian Research and Development Foundation (CRDF); National Geographic Society (Research and Exploration Committee); The Paleontological Society; American Chemical Society (Petroleum Research Fund); The MacArthur Foundation (Chicago).

Canada: Natural Sciences and Engineering Research Council (NSERC).

China: National Science Foundation of China (NSFC, for three different programs); Ministry of Science and Technology, the Government of China.

Europe: Deutsch Forschungsgemeinschaft (DFG) (three different programs) (Germany); The Leibniz Association (Germany); The Natural Environmental Research Council NERC (UK); Biotechnology and Biological Sciences Research Council (Genes and Development Committee) (UK); The Leverhulme Trust (UK); The Palaeontological Association (UK); Research Council of Norway; Fundação para a Ciência e a Tecnologia (FCT) (National Science and Technology Foundation, Portugal); The European Research Council (four different programs).

Others: Israel Science Foundation; Council of Scientific and Industrial Research (CSIR) of India; National Research Foundation of South Africa.

Institutional Funding Reviews: National Museum of Natural History, Smithsonian Institution, USA; Institute of Zoology (Beijing), Chinese Academy of Sciences; Canadian Museum of Nature (Ottawa, Canada); South Carolina Bioengineering Council (US).

**Tenure and Promotional Reviews for Universities and Research Museums:**

External reviewers for over 40 cases (1999 – present) for promotion with tenure, promotion to associate professor, promotion to full professors, or equivalent curatorial ranks, senior faculty appointments, university awards and honorific recognitions.

### **XVIII. Publications: Book and Edited Symposium Proceedings**

#### **Book**

- 133) Kielan-Jaworowska, Z., R. L. Cifelli, and **Z.-X. Luo**. **2004**. Mammals from the Age of Dinosaurs: Origins, Evolution, and Structure. Columbia University Press, New York. Pp. i-xv, 1-630; 239 figures.

#### **Edited Volumes of Symposium Proceedings**

- 132) Xu, X., **Luo, Z.-X.** and J.-Y. Rong (Guest Editors). **2010**. Recent Advances in Chinese Palaeontology. Proceedings of Royal Society, Series B (Biological Sciences) 277 (1679): 161-344 (Print issue published on January 22, 2010, after online publications of the papers in this volume during 2009) (Special Issue on Paleontology of China, organized and edited by Xu, Luo and Rong, at the invitation of the Editorial Board of Proceedings of Royal Society)
- 131) Beard, K. C. and **Z.-X. Luo** (Editors). **2007**. Mammalian Paleontology On A Global Stage: Papers In Honor of Mary R. Dawson. Bulletin of Carnegie Museum of Natural History 39: 1-234.
- 130) Polly, P. D., Springer, M. S. and **Z.-X. Luo** (Editors). **2005**. Journal of Mammalian Evolution – the Clemens Special Volume. Journal of Mammalian Evolution, Volume 12 (Issues 1/2 3/4): 1-552.

### **XIX. Publications (full length research papers excluding abstracts, popular reviews, commentaries and popular scientific articles)**

#### **2023**

- 129) Stilson K. T., **Luo Z.-X.**, Li, P., Olson, S., and C. F. Ross. **2023**. Three-dimensional mandibular kinematics of mastication in the marsupial *Didelphis virginiana*. Philosophical Transactions of Royal Society, Series B. 378: 20220548 ([doi.org/10.1098/rstb.2022.0548](https://doi.org/10.1098/rstb.2022.0548)).
- 128) Li, P., Ross, C. F., **Luo, Z.-X.**, and N. J. Gidmark. **2023** Head posture impacts mammalian hyoid position and suprahyoid muscle length: implication for swallowing biomechanics. Philosophical Transactions of Royal Society, Series B.378: 20220552 ([doi.org/10.1098/rstb.2022.0552](https://doi.org/10.1098/rstb.2022.0552)).
- 127) Lautenschlager, S., Fagan, M.J., **Luo, Z.X.**, Bird, C.M., Gill, P. and E.J. Rayfield. **2023**. Functional reorganisation of the cranial skeleton during the cynodont–mammaliaform transition. *Communications Biology* 6, 367 (2023). <https://doi.org/10.1038/s42003-023-04742-0>.
- 126) **Luo, Z.-X.** and T. Martin. **2023**. Mandibular and Dental Characteristics of the Late Jurassic Mammal *Henkelotherium guimarotae* (Paurodontidae, Dryolestida). PalZ (Paläontologische Zeitschrift). 97:569-619 ([doi.org/10.1007/s12542-023-00651-z](https://doi.org/10.1007/s12542-023-00651-z)) (Published online April 2023).

#### **2022**

- 125) Bendel, E.-M., Kammerer, C. F., **Luo, Z.-X.**, Smith, R. M. H. and J. Fröbisch. **2022**. The earliest segmental sternum in a Permian synapsid and its implications for the evolution of mammalian locomotion and ventilation. Scientific Reports (2022) 12:13472 ([doi.org/10.1038/s41598-022-17492-6](https://doi.org/10.1038/s41598-022-17492-6)).



- 124) Araújo, R., David, R., Benoit, J., Lungmus, J. K., Stoessel, A., Barrett, P. M., Maisano, J. A., Ekdale, E., Orliac, M., **Luo, Z.-X.**, Martinelli, A. G., Hoffman, E. A., Sidor, C. A., Martins, R. M. S., Spoor, F., and K. D. Angielczyk. **2022**. Inner ear biomechanics reveals a Late Triassic origin for mammalian endothermy. *Nature* 607:726-731. <https://doi.org/10.1038/s41586-022-04963-z>.
- 123) **Luo, Z.-X.**, Bhullar, B.-A.S., Crompton, A.W., Neander, A.I., and T.B. Rowe. **2022**. Reexamination of the mandibular and dental morphology of the Early Jurassic mammaliaform *Hadrocodium wui*. *Acta Palaeontologica Polonica*. 67 (1): 95-113. <https://doi.org/10.4202/app.00949.2021>.
- 122) Pevsner, S. K., Grossnickle, G. M. and **Z.-X. Luo**. **2022**. The functional diversity of marsupial limbs is influenced by both ecology and developmental constraint. *Biological Journal of the Linnean Society*. 135(3): 569-585. ([doi.org/10.1093/biolinnean/blab168](https://doi.org/10.1093/biolinnean/blab168)) Published online 1 Dec. 2021.
- 121) Sulser, R. B., Patterson, B. D., Urban, D. J., Neander, A. I. and **Z.-X. Luo**. **2022**. Evolution of Inner ear neuroanatomy of bats and implications for echolocation. *Nature*. 602: 449-454 ([doi.org/10.1038/s41586-021-04335-z](https://doi.org/10.1038/s41586-021-04335-z))

### 2021

- 120) Panciroli, E. L., Benson, R. B. J., Fernandez, V., Humage, M., Martin-Serra, A., Walsh, S., **Luo, Z.-X.** and N. C. Fraser, 2021b. Postcrania of *Borealestes* (Mammaliformes: Docodonta) and the emergence of ecomorphological diversity in early Mammals. *Palaeontology*. 2021: e12577 (pp. 1–36) ([doi.org/10.1111/pala.12577](https://doi.org/10.1111/pala.12577))
- 119) Li, P., Ross, C. F., and **Z.-X. Luo**. 2022. Morphological disparity and evolutionary transformations in the primate hyoid apparatus. *Journal of Human Evolution*. 162 (2022) 103094 [Published online 2021 \(https://doi.org/10.1016/j.jhevol.2021.103094\)](https://doi.org/10.1016/j.jhevol.2021.103094).
- 118) Panciroli, E. L., Benson, R. B. J., Fernandez, V., Butler, R. J., Fraser, N. C., **Luo, Z.-X.** and S. Walsh. 2021a. New species of mammaliaform and the cranium of *Borealestes* (Mammaliformes: Docodonta) from the Middle Jurassic of the British Isles. *Zoological Journal of the Linnean Society*. 192(4): 1323–1362 (<https://doi.org/10.1093/zoolinnean/zlaa144>)

### 2020

- 117) Grossnickle, D. M., Chen, M., Wauer, J. G. A., Pevsner, S. K., Weaver, L. N., Meng, Q.-J., Liu, D., Zhang, Y.-G., and **Z.-X. Luo**. 2020. Incomplete convergence of gliding-mammal skeletons. *Evolution*. 74: 2662-2680. (Published online Sept 17, 2020; In Print December 2020) (DOI: 10.1111/evo.14094)
- 116) **Luo, Z.-X.** and G. A. Manley. 2020. Origins and Evolution of Mammalian Ears and Hearing Function. Pp. 207-252 (Chapter 2). In: *The Senses – A Comprehensive Reference (Volume 2) (Second Edition)* (Fritsch, B. Editor; Grothe, B. volume editor); Elsevier Academic Press. (<https://doi.org/10.1016/B978-0-12-805408-6.00033-6>).

### 2019

- 115) Panciroli, E. L., Benson, R. B. J., and **Z.-X. Luo**. 2019. The mandible and dentition of *Borealestes serendipitus* (Docodonta) from the Middle Jurassic of Skye, Scotland. *Journal of Vertebrate Paleontology*. e1621884 (17 pages) [doi.org/10.1080/02724634.2019.1621884](https://doi.org/10.1080/02724634.2019.1621884)
- 114) Jäger, K. R. K., **Luo, Z.X.** and T. Martin. 2019. Postcranial skeleton of *Henkelotherium guimarotae* (Cladotheria, Mammalia) and locomotor adaptation. *Journal of Mammalian Evolution*, 3: 349-372 (<https://doi.org/10.1007/s10914-018-09457-2>) (published online Sept 2019).

- 113) Zhou, C.-F. Bhullar, B.-A. S., Neander, A. I., Martin, T. and **Z.-X. Luo**. 2019. New Jurassic mammaliaform sheds light on early evolution of mammal-like hyoid bones. *Science*. 365: 276-279. (doi.org/10.1126/science.aau9345)

### 2018

- 112) Panciroli, E. L., Schultz, J. A., and **Z.-X. Luo**. 2019. Morphology of the petrosal and stapes of *Borealestes* (Mammaliaformes, Docodonta) from the Middle Jurassic of Skye, Scotland. *Papers in Palaeontology*. 5:139-156 (Published online 2018) ([doi.org/10.1002/spp2.1233](https://doi.org/10.1002/spp2.1233))
- 111) Lautenschlager, S., Gill, P., **Luo, Z.-X.**, Fagan, M. J., and E. J. Rayfield. 2018. The role of miniaturisation in the evolution of the mammalian jaw. *Nature*. 561:533-537 (doi.org/10.1038/s41586-018-0521-4).
- 110) Huttenlocker, A. K., Grossnickle, D. M., Kirkland, J. I., Schultz, J. A., and **Z.-X. Luo**. 2018. Late-surviving stem mammal links the lowermost Cretaceous of North America and Gondwana. *Nature*. 558:109-112 (doi: 10.1038/s41586-018-0126-y).

### 2017

- 109) Chen, M., **Luo, Z.-X.** and G. P. Wilson. 2017. The postcranial skeleton of *Yanoconodon allini* from the Early Cretaceous of Hebei, China and its implications for locomotor adaptation in eutriconodontan mammals. *Journal of Vertebrate Paleontology*. e1315425 (23 pages) (doi.org/10.1080/02724634.2017.1315425)
- 108) Schultz, J. A., Bhullar, B. A. S., and **Z.-X. Luo**. 2017 (2019). Re-examination of the Jurassic mammaliaform *Docodon victor* by computed tomography and occlusal functional analysis. *Journal of Mammalian Evolution*. 26: 9-38. (Published in print in 2019; published online in 2017) (doi.org/10.1007/s10914-017-9418)
- 107) Meng, Q.-J., Grossnickle, D. M., Liu, D., Zhang, Y.-G., Neander, A. I., Ji, Q., and **Z.-X. Luo**. 2017. New gliding mammaliaforms from the Jurassic. *Nature*. 548: 291-296. (doi.org/10.1038/nature23476).
- 106) **Luo, Z.-X.**, Meng, Q.-J., Grossnickle, D. M., Liu, D., Zhang, Y.-G., Neander, A. I., and Ji, Q. 2017. New evidence for mammaliaform ear evolution and feeding adaptation in a Jurassic ecosystem. *Nature*. 548: 326-329 (doi.org/10.1038/nature23483).
- 105) Anthwal, N., Urban, D. J., **Luo, Z.-X.**, Sears, K. E., and A. S. Tucker. 2017. Meckel's cartilage breakdown offers clues to mammalian middle ear evolution. *Nature Ecology & Evolution*. 1:0093. (doi.org/10.1038/s41559-017-0093) ([www.nature.com/natecolevol](http://www.nature.com/natecolevol)).
- 104) Urban, D. J., Anthwal, N., **Luo, Z.-X.**, Maier, J. A., Sadier, A., Tucker, A. S., and K. E. Sears. 2017. A new developmental mechanism for the separation of the mammalian middle ear ossicles from the jaw. *Proceedings of Royal Society (London) B – Biological Sciences*. 284: 20162416. (Published online in 2016) (<http://doi.org/10.1098/rspb.2016.2416>).
- 103) Schultz, J. A., U. Zeller and **Z.-X. Luo**. 2017. Inner ear labyrinth anatomy of monotremes and implications for mammalian inner ear evolution. *Journal of Morphology* 278:236–263. (Published online in 2016) (doi.org/10.1002/jmor.20632).
- 102) Lautenschlager, S., Gill, P., **Luo, Z.-X.**, Fagan, M. J. and E. J. Rayfield. 2017. Morphological evolution of the mammalian jaw adductor complex. *Biological Reviews*. 92: 1910–1940. Published online 2016 (doi.org/10.1111/brv.12314).

### 2016

- 101) **Luo, Z.-X.**, Schultz, J. A. and E. G. Ekdale. 2016. Evolution of the middle and inner ears of mammaliaforms: the approach to mammals. In J. A. Clack, R. R. Fay and A. N. Popper (editors) *Evolution of the Vertebrate Ear: Evidence from the Fossil Record*. Springer Handbooks for Auditory Research. 59:139-174. (doi.org/10.1007/978-3-319-46661-3\_6).
- 100) Rowe, T. B., **Luo, Z.-X.**, Ketcham, R. A., Maisano, J. A. and M. W. Colbert. 2016. Data Descriptor: X-ray computed tomography datasets for forensic analysis of vertebrate fossils. *Scientific Data* 3:160040 (doi.org/10.1038/sdata.2016.40) (www.nature.com/scientificdata)
- 99) Girard, R., Zeineddine, H. A., Orsbon, C., Tan, H., Moore, T., Hobson, N., Shenkar, R., Lightle, R., Shi, C., Fam, M. D., Cao, Y., Shen, L., Neander, A. I., Rorrer, A., Gallione, C., Tang, A. T., Kahn, M. L., Marchuk, D. A., **Luo, Z.-X.**, and I. A. Awad. 2016. Micro-computed tomography in murine models of cerebral cavernous malformations as a paradigm for brain disease. *Journal of Neuroscience Methods* 271:14–24. (http://doi.org/10.1016/j.jneumeth.2016.06.021)
- 98) **Luo, Z.-X.** Meng, Q.-J., Liu, D., Y-G. Zhang, and C.-X. Yuan. 2016. Cruro-pedal structure of the paulchoffatiid multituberculate *Rugosodon eurasiaticus* and evolution of the multituberculate ankle. *Palaeontologia Polonica* 67: 149-169. (http://doi.org/10.4202/pp.2016.67\_149)

### 2015

- 97) **Luo, Z.-X.**, Gatesy, S. M., Jenkins, F. A., Amaral W. W. and N. H. Shubin. 2015. Mandibular and dental characteristics of Late Triassic mammaliaform *Haramiyavia* and their ramifications for basal mammal evolution. *Proceedings of National Academy of Sciences USA*. 112 (51): E7101–E7109 (doi.org/10.1073/pnas.1519387112).
- 96) Martin, T., Marugán-Lobón, J., Vullo, R., Martín-Abad, H., **Luo, Z.-X.**, and A. D. Buscalioni. 2015. A Cretaceous eutriconodont and integument evolution of early mammals. *Nature* 526(7573): 380–384.
- 95) **Luo, Z.-X.** 2015. Origin of the mammalian shoulder. Pp.167 -187. In: K. P. Dial, N. H. Shubin & E. L. Brainerd (eds.) *Great Transformations: Major Events in the History of Vertebrate Life*. The University of Chicago Press.
- 94) **Luo, Z.-X.**, Q.-J. Meng, Q. Ji, D. Liu, Y.-G. Zhang, and A. I. Neander. 2015. Evolutionary development in basal mammaliaforms as revealed by a docodontan. *Science*. 347: 760-764.
- 93) Meng, Q.-J., Q. Ji, Y.-G. Zhang, D., Liu, D. M. Grossnickle, and **Z.-X. Luo**. 2015. An arboreal docodont from the Jurassic and mammaliaform ecological diversification. *Science*. 347: 764-768.
- 92) Hughes, E. M., J. R. Wible, M. Spaulding, and **Z.-X. Luo**. 2015. Mammalian petrosal from the Upper Jurassic Morrison Formation of Fruita, Colorado. *Annals of Carnegie Museum*. 83: 1-17.

### 2014

- 91) **Luo, Z.-X.** 2014. Evolution: tooth structure re-engineered. *Nature*. 512: 36-37 (News and Views commentary).

### 2013

- 90) Yuan, C.-X., Ji, Q., Meng, Q.-J. and **Z.-X. Luo**. 2013. Earliest evolution of multituberculate mammals revealed by a new Jurassic fossil. *Science*. 341: 779-783.
- 89) Zhou, C.-F., Wu, S., Martin, T. and **Z.-X. Luo**. 2013. A Jurassic mammaliaform and the earliest mammalian evolutionary adaptations. *Nature*. 500: 163-168 (doi.org/10.1038/nature12429).

- 88) Ruf, I., **Z.-X. Luo**, and T. Martin. 2013. Re-investigation of the basicranium of *Haldanodon expectatus* (Docodonta, Mammaliaformes). *Journal of Vertebrate Paleontology*. 33:382-400.
- 87) O'Leary, M. A., Bloch, J. I., Flynn, J. J., Gaudin, T. J., Giallombardo, A., Giannini, N. P., Goldberg, S. L., Kraatz, B. P., **Luo Z.-X.**, Meng, J., Ni, X., Novacek, M. J., Perini, F. A., Randall, Z. S., Rougier, G. W., Sargis, E. J., Silcox, M. T., Simmons, N. B., Spaulding, M., Velazco, P. M., Weksler, M., Wible, J. R., and A. L. Cirranello. 2013. The placental mammal ancestor and the post-K-Pg radiation of placentals. *Science*. 339: 662-667.
- O'Leary M. A. et al. 2013. Response to Comment on "The Placental Mammal Ancestor and the Post-K-Pg Radiation of Placentals." *Science* 341: 613 (DOI: 10.1126/science.1238162).
- 86) Walsh, S. A., **Z.-X. Luo** and P. M. Barrett. 2013. Modern imaging techniques as a window to prehistoric auditory worlds. Pp. 227 – 261. In: C. Köppel, G. A. Manley, A. N. Popper and R. F. Fay (editors), Insights from Comparative Hearing Research - Springer Handbook of Auditory Research. Springer, New York, Heidelberg, Dordrecht, and London.

## 2012

- 85) **Luo, Z.-X.**, I. Ruf and T. Martin. 2012. The petrosal and inner ear of the Late Jurassic cladotherian mammal *Dryolestes leiriensis* and implications for evolution of ear in therian mammals. *Zoological Journal of the Linnean Society (London)*. 166:433-463.
- 84) Chen, M. and **Z.-X. Luo**. 2012. Postcranial skeleton of the Cretaceous mammal *Akidolestes cifellii* and its locomotor adaptations. *Journal of Mammalian Evolution*. 20: 159-189 (DOI10.1007/s10914-012-9199-9 (published online in 2012, published print in in 2013)

## 2011

- 83) **Luo, Z.-X.** 2011. Developmental patterns in Mesozoic evolution of mammal ears. *Annual Review of Ecology, Evolution and Systematics*. 42: 355–80 (10.1146/annurev-ecolsys-032511-142302).
- 82) **Luo, Z.-X.**, C.-X. Yuan, Q.-J. Meng, and Q. Ji. 2011. A Jurassic eutherian mammal and the divergence of marsupials and placentals. *Nature*. 476: 442-445 (do.org/10.1038/nature10291).
- 81) Rowe, T. B., T. E. Macrini, and **Z.-X. Luo**. 2011. Fossil evidence on origin of the mammalian brain. *Science*. 332: 955-957 (DOI: 10.1126/science.1203117).

## 2010

- 80) **Luo, Z.-X.**, I. Ruf, J. A. Schultz, and T. Martin. 2011. Fossil evidence on evolution of inner ear cochlea in Jurassic mammals. *Proceedings of Royal Society Series-B (Biological Sciences)*. 278: 28-34 (doi.org/10.1098/rspb.2010.1148) (Published online in July 28, 2010; in print 2011).
- 79) **Luo, Z.-X.** 2010. Evolutionary development and homoplasy of the middle ear in early mammal evolution. Pp. 163-179. In: Darwin's Heritage Today (Manyuan Long, Zhonghe Zhou and Hongya Gu, editors). China Higher Education Press. Beijing, China (Invited contribution to the Proceedings of Darwin-China 200 Symposium, Beijing, China, October 2009, hosted by Peking University, Chinese Academy of Sciences and National Natural Sciences Foundation of China).

## 2009

- 78) Ji, Q., **Z.-X. Luo**, X.-L. Zhang, C.-X. Yuan, and L. Xu. 2009. Evolutionary development of the middle ear in Mesozoic therian mammals. *Science*. 326:278-231 (doi.org/0.1126/science.1187501).
- 77) Gao, C.-L., G. P. Wilson, **Z.-X. Luo**, A. M. Maga, Q.-J. Meng, and Wang, X.-R. 2009. A new mammal skull from the Lower Cretaceous of China with implications for the evolution of obtuse

angled molars and amphilestid eutriconodonts. Proceedings of Royal Society (London) Series B (Biological Sciences). 277:237-246 (doi.org/10.1098/rspb.2009.1014).

- 76) Ruf, I., **Z.-X. Luo**, J. R. Wible, and T. Martin. **2009**. Petrosal anatomy and inner ear structure of the Late Jurassic mammal *Henkelotherium* and the ear region characters of basal therian mammals. Journal of Anatomy. 214: 679-693. (doi.org/10.1111/j.1469-7580.2009.01059.x)

#### 2008

- 75) Chen, M. and **Z.-X. Luo**. **2008**. Morphology of dentition and postcranial skeleton of *Akidolestes*. Acta Geologica Sinica (Chinese Edition). 82(2): 155-164 (with English Abstract).
- 74) You, H.-L. and **Z.-X. Luo**. **2008**. Dinosaurs from the Lower Cretaceous Gonpoquan Basin in Jiuquan Area, Gansu Province, China. Acta Geologica Sinica (Chinese Edition). 82(1): 139-144. (with English Abstract).

#### 2007

- 73) **Luo, Z.-X.** **2007**. Transformation and diversification in the early mammalian evolution. Nature 450: 1011-1019.
- 72) **Luo, Z.-X.**, Q. Ji and C.-X. Yuan. **2007**. Convergent dental evolution in pseudotribosphenic and tribosphenic mammals. Nature. 450: 93-97.
- 71) **Luo, Z.-X.**, P.-J. Chen, G. Li, and M. Chen. **2007**. A new eutriconodont mammal and evolutionary development of early mammals. Nature. 446: 288-293.
- 70) **Luo, Z.-X.**, and T. Martin. **2007**. Analysis of molar structure and phylogeny of docodontan genera. Bulletin of Carnegie Museum of Natural History. 39: 27-47.
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### Published Reviews & Popular Scientific Articles

- 21) **Luo, Z.-X.** **2021**. Preface: Mesozoic mammaliaforms and origins of modern mammals (刊首: 中生代哺乳型动物与现代哺乳动物起源). *China Nature (大自然)*. Volume 218 Issue 2 (March, 2021): page 01.
- 20) **Luo, Z.-X.** 2020. Mesozoic mammals and early mammalian evolution. Pp, 227-236. *In* Encyclopedia of Geology (2<sup>nd</sup> Edition) (Scott Elias and David Alderton, eds). Elsevier, New York and London ([www.elsevier.com](http://www.elsevier.com)). <https://doi.org/10.1016/B978-0-08-102908-4.00085-0>
- 19) Martín-Abad, H., Marugán-Lobón, J., Vullo, R., Martín, T., **Luo, Z.-X.** y Buscalioni, A.D. (2016). Spinolestes, un mamífero primitivo excepcional del yacimiento de Las Hoyas (Spinolestes, an exceptional primitive mammal from Las Hoyas). ¡Fundamental! 30: 1–46. 14<sup>o</sup> PREMIO INTERNACIONAL DE INVESTIGACIÓN EN PALEONTOLOGÍA *Paleonturología* 16: Pp. 1-33 (Spanish). Pp. 34-46 (English).
- 18) Brusatte, S. L. and **Z.-X. Luo**. 2016. Ascent of Mammals. *Scientific American*. 2016 June Issue: Pages 28-35.
- 17) **Luo, Z.-X.** 2010. Journal Club (Commentary on mammalian dental evolutionary development – Invited Column on Research Highlights). *Nature*. 465: 669 (10 June 2010).
- 16) Xiao, S.-H., Q. Yang, and **Z.-X. Luo** 2010. A golden age of paleontology in China? A SWOT analysis. *Palaeontologia Electronica* Vol. 13, Issue 1; 3E:4p; [http://palaeo-electronica.org/paleo/2010\\_1/commentary/china.htm](http://palaeo-electronica.org/paleo/2010_1/commentary/china.htm)
- 15) Xu, X., **Luo Z.-X.** and J.-Y. Rong. 2009. Recent advances in Chinese palaeontology. *Proceedings of Royal Society B (Biological Sciences)* 277:161-164. (DOI: 10.1098/rspb.2009.1668)
- 14) **Luo, Z.-X.** 2009. The 100<sup>th</sup> Anniversary of the Discovery of Dinosaur National Monument. Pp: 22-25. *Dinosaur Expo 2009 – The Miracle of Deserts Exhibit Catalogue Book*. (Exhibit in Tokyo, Japan) Published by the Nikkei Press, Tokyo, Japan. (Translated into Japanese by Nikkei).
- 13) **Luo, Z.-X.** 2008. Rise of marsupial and placental mammals in the Cretaceous of Asia. In, K. Miyata (ed.) *Extinction of Dinosaurs and Rise of New Rulers (Exhibit Book for Special Exhibition)*, pp. 105-108. Fukui Prefectural Dinosaur Museum, Fukui, Japan. (In English and Japanese: Japanese translation provided by Dr. K. Miyata).
- 12) Beard, K. C. and **Zhe-Xi Luo**. 2007. Mammalian paleontology on a global stage: a tribute to Mary R. Dawson. *Bulletin of Carnegie Museum of Natural History* 39: 1-5.
- 11) **Luo, Z.-X.** 2007. Book Review: Natural history of human's most distant relatives: Echidna – Extraordinary egg-laying mammal. By Michael L. Augee, Brett A. Gooden, and Anne M. Musser. *Journal of Mammalian Evolution* 14: 283-285.

- 10) **Luo, Z.-X.** and M. Chen. 2007. The magic story of mammalian ear evolution. *Scientific American* (Chinese Edition, Taiwan). June 2007. No. 64: 96-98. (In Chinese).
- 9) **Luo, Z.-X. 2005.** Fossil Vertebrates: Mesozoic mammals. Pp. 527-534. In, R. C. Selley, R. Cocks and I. Pilmer (editors): Encyclopedia of Geology (2004 Edition). Academic Press/Elsevier Science Ltd, Oxford and London.
- 8) Polly, P. D., J. A. Lillegraven, and **Z.-X. Luo.** 2005. Introduction: Paleomammalogy in Honor of Professor Emeritus William Alvin Clemens, Jr. *Journal of Mammalian Evolution* 12:3-9.
- 7) **Luo, Z.-X. 2005.** Book review: "Doushantuo Fossils: Life on the Eve of Animal Radiation." By Xun-lai Yuan, Shu-hai Xiao, Lei-ming Yin, Andrew H. Knoll, Chuan-ming Zhou and Xi-nan Mu. 2002. *Journal of Paleontology* 75:1040-1042.
- 6) **Luo, Z.-X. 2004.** A Window on Early Animal Evolution (Book review): for "The Cambrian Fossils of Chengjiang, China – The Flowering of Early Animal Life" by Xian-Guang Hou, Richard J. Aldridge, Jan Bergström, David J. Siveter, Derek J. Siveter & Xiang-Hong Feng. *Nature* 430: 405.
- 5) **Luo, Z.-X. 2002.** Evolutionary story of the Mesozoic tribosphenic mammals. *Scientific American* (Chinese Edition, Taiwan), April 2002: 62-63. (Popular Scientific Article, in Chinese).
- 4) **Luo, Z.-X. 2002.** Symmetrodonts (an entry to the McGraw-Hill Encyclopedia). The McGraw-Hill Encyclopedia of Science and Technology, Ninth Edition. P. 84. New York, NY. (Published Review).
- 3) **Luo, Z.-X. 2001.** Foreword to Rise of the Dragon. Pp. ix-xiv, in Rise of the Dragon – Recent Advancement in Palaeontology in China, (Henry Gee, ed.). The University of Chicago Press. (Invited contribution by the editor)
- 2) **Luo, Z.-X. 1997.** How do whales hear? *Carnegie Magazine*, Vol. LXIII: Pp. 23-25. (Popular Scientific Article).
- 1) **Luo, Z.-X.**, and Z. Zhang. **1995.** Thrinaxodon: Digital Atlas of the Skull (by T. Rowe, W. Carlson, and W. Böttneroff). *Journal of Vertebrate Paleontology*, 15: 871-874. (Published Review).

#### **Ph.D. Thesis**

- Luo, Z.-X. 1989.** The petrosal structures of Multituberculata (Mammalia) and the molar morphology of early Arctocyonidae (Condylarthra, Mammalia). Ph.D. Dissertation, Museum of Paleontology, University of California at Berkeley. Pp. 1-426. (Major adviser: W. A. Clemens, Jr.; Committee Members: M. H. Wake, and K. Padian).

#### **XX. Published Abstracts & Presentations at Conferences and Symposia (not listed)**

#### **XIX. Invited Research Seminars and Popular Scientific Lectures (Partial list)**

- 2023 Diversification of Mesozoic Mammals – 220 Million Years of History  
The Watson Armour Seminar Series – 2023 AAPI Heritage History Month  
Field Museum of Natural History
- 2022 Convergent Evolution of Mammalian Middle Ears in the Age of Dinosaurs  
Keynote Presentation  
The 9<sup>th</sup> Middle Ear Mechanics in Research and Otology  
Memro Conference hosted by University of Colorado School of Medicine  
Boulder Colorado 22 June 2022

- 2022 Evolution of Mammalian Hyoid Structure (virtual seminar)  
Steinmann Institute of Geosciences (Paleontology Section)  
University of Bonn (Germany)
- 2022 Furs, Spines and Scales in Mammals from the Age of Dinosaurs  
DinoFest2022 Public Outreach Talk (virtual)  
Natural History Museum of Utah  
Salt Lake City, Utah
- 2019 Department of Biological Sciences  
Loyola University of Chicago
- 2019 The Linde Workshop  
Systematic Zoology Division - Faculty of Life Sciences  
Humboldt-Universität zu Berlin, Germany
- 2019 Palaeobiology Group, Department of Earth Sciences  
Oxford University, UK
- 2019 Four lectures on origins of mammals  
Institute of Paleontology and Environment Research  
School of Earth and Space Sciences  
Peking University, Beijing, China
- 2019 Departmental Seminar, Department of Geophysical Sciences  
The University of Chicago
- 2019 Departmental Seminar, Department of Biology  
University of Toronto at Mississauga  
Mississauga, Ontario, Canada
- 2018 Earliest Mammalian Evolution in the Age of Dinosaurs  
The Science and Mathematics Colloquium  
Columbia College, Chicago
- 2018 Origins of Mammals and Evolution of Mesozoic Mammaliaform Biotas  
(Plenary Lecture)  
The 13th International Symposium on Mesozoic Terrestrial Ecosystems  
July 2018, Bonn, Germany
- 2018 Evolutionary Homoplasy and Developmental Morphogenesis of Tympanic Ring in  
Mammaliaform Middle Ear Evolution.  
Keynote Speaker for Symposium on Mapping Vertebrate Skeletomuscular Evolution on  
Phylogeny (Tatsuya Hirasawa, convener)  
The First Asia Evolutionary Biology Conference  
China National Gene Bank, Shenzhen, China
- 2017 Origins and Earliest Evolution of Mammals - Evidence from Mesozoic Mammaliaforms  
Plenary Lecture  
XXV Congresso of Brasileiro de Paleontologia, Ribeirão Preto – Sao Paulo, Brasil
- 2017 Origins of Mammals – Fresh Insight from New Mammaliaform Fossils of the Mesozoic  
Department of Organismic and Evolutionary Biology  
Harvard University
- 2017 Early Evolution and Diversity of Vertebrates Symposium  
Evolutionary Morphology Laboratory  
RIKEN Center for Developmental Biology, Kobe, Japan
- 2016 Department of Earth and Environmental Sciences  
University of Illinois at Chicago
- 2016 Department of Anatomical Sciences and Neurobiology  
University of Louisville, Kentucky
- 2016 Department of Ecology and Evolutionary Biology  
Cornell University, Ithaca, New York
- 2016 Florida Museum of Natural History  
University of Florida, Gainesville, Florida
- 2015 Origins and Earliest Evolution of Mammals  
Plenary Session Lecture  
The Paleontological Society of China  
The 2015 Academic Meeting, Shenyang, China
- 2015 Nanjing Institute of Geology and Palaeontology

- Chinese Academy of Sciences (Academia Sinica)  
Nanjing, China
- 2015 Museum of Paleontology  
University of California at Berkeley
- 2013 Earliest Evolution of Mammals – Fossil Evidence from China  
(Public Lecture)  
The University of Chicago Center in Beijing
- 2013 Origins of Mammals (Invited Keynote Talk)  
Oral Biology Centennial Legacy Conference  
University of Illinois School of Dentistry  
University of Illinois at Chicago
- 2013 Jurassic Mothers from China: Origins and Earliest Evolution of Mammals  
Harvard Museum of Natural History  
“Evolution Matters” Public Lecture Series  
Harvard University
- 2012 Origins and Earliest Evolution of Mammals  
The Watson Armour Research Seminar  
Field Museum of Natural History  
Chicago, Illinois
- 2012 Colloquium of Geosciences  
Department of Geological Sciences  
Indiana University
- 2012 Divergence and Early Evolution of Marsupials and Placentals  
The Carnegie Discoverers  
Carnegie Museum of Natural History
- 2011 Developmental Patterns In Early Mammals - Toward An Understanding Of The Origins  
Of Evolutionary Innovations  
Ecology and Evolution Seminar  
The University of Pittsburgh
- 2011 Developmental Patterns in Early Mammal Evolution  
Department of Organismal Biology and Anatomy  
The University of Chicago
- 2011 Fossil Record of Northeastern China and Early Mammal Evolution  
Symposium for Opening of the Museum  
Paleontological Museum of Liaoning  
Shenyang Normal University, Shenyang, China
- 2011 Development and Evolution of Early Mammals  
Institute of Paleontology  
University of Zurich, Switzerland
- 2011 Evolutionary Development and Origins of Mammals  
Seminars for Masters Biosciences  
Institute of Functional Genomics of Lyon &  
Centre National de la Recherche Scientifique (CNRS)  
École Normale Supérieure de Lyon, France
- 2010 Evolutionary Development and Origins of Mammals  
Departmental Seminar  
Program in Ecology, Evolution and Conservation Biology  
Department of Animal Sciences  
University of Illinois, Urbana-Champaign
- 2010 Evolution and Morphogenesis of the Coiled Cochlea in Therian Mammals  
Steinmann-Institut für Mineralogie, Geologie und Paläontologie  
Universität Bonn
- 2010 Evolutionary Development and Early Evolution of Mammalian Ears  
Department of Zoology  
University of Cambridge, Cambridge, UK
- 2010 Evolutionary Development and Origins of Mammals  
Institute Curriculum  
The Santa Fe Institute, Santa Fe, New Mexico

- 2010 Evolutionary Development and Early Evolution of Mammalian Ears  
The R. W. Moriarty Science Seminar  
Carnegie Museum of Natural History
- 2009 Fossil Record and Climate Change (popular lecture)  
Café Scientifique (Pittsburgh Group of a worldwide network of scientific clubs)  
Carnegie Science Center (Pittsburgh)
- 2009 Evolution of Mammalian Middle Ear  
The Darwin-China 200 Conference (Invited speaker)  
College of Life Sciences, Peking University  
Co-organized by Peking University, Chinese Academy of Sciences and National  
Natural Sciences Foundation of China
- 2009 Evolutionary Development and Homoplasies of the Definitive Mammalian Middle Ear  
(Invited keynote speaker)  
79 Jahrestagung der Paläontologischen Gesellschaft  
(Annual Meeting of the German Paleontological Society – 2009 Bonn)
- 2009 Ecological diversification and cladogenesis of major mammalian groups.  
The Museum of Zoology  
University of Cambridge, Cambridge, UK.
- 2009 Ecomorphological diversity of Mesozoic mammals and testing the timing of mammalian  
molecular evolution.  
Humboldt Museum für Naturkunde, Berlin, Germany.
- 2009 Origins of Mammals  
Popular guest lecture for non-science major undergraduates  
Foundation of Science Course  
University of Pittsburgh
- 2009 Major patterns in the early evolution of mammalian inner and middle ears  
The High-Resolution CT Laboratory  
University of Texas at Austin
- 2009 Critical Transition in History of Life and Fossil Record of China  
The Wann Langston Lecture  
The Jackson School of Geosciences  
University of Texas at Austin
- 2009 Origins and the earliest evolution of mammals  
Department of Geosciences  
Princeton University  
Princeton, New Jersey
- 2008 Ecomorphological diversity of Mesozoic mammals and testing the timing of mammalian  
molecular evolution.  
Department of Integrative Biology  
University of California at Berkeley  
Berkeley, California
2008. Timing of molecular evolution and Mesozoic mammal ecological diversification.  
The Watson Armour Research Seminar  
Field Museum of Natural History  
Chicago, Illinois
2008. Critical Transition in History of Life and Fossil Record of China  
The Ermine Cowles Case Lecture  
Museum of Paleontology and University Exhibit Museum  
University of Michigan  
Ann Arbor, Michigan
2008. Ecomorphological diversity of Mesozoic mammals and testing the timing of mammalian  
molecular evolution.  
Research Seminar  
Museum of Paleontology, University of Michigan
2008. Early Evolution of Mammals in the Age of Dinosaurs  
Public scientific lecture for “K-T Extinction and Rise of New Rulers” Exhibit  
The Fukui Prefectural Dinosaur Museum, JAPAN  
(Interpreter: Dr. Yukimitsu Tomida, National Science Museum of Japan).

2008. Origin and earliest evolution of mammalian inner ear  
Grand Rounds Research Seminar Series  
Eye and Ear Institute  
University of Pittsburgh School of Medicine  
Pittsburgh, Pennsylvania
2008. Fossils, Furs and Ancestors of Mammals  
The Charles Darwin Anniversary Lecture (Keynote Lecture)  
College of Charleston  
Charleston, South Carolina
2008. Ancestors of mammals  
Adult and Continuing Education Program Public Lecture Series  
University of Pittsburgh and Carnegie Museum of Natural History
2008. Discovery of Early Fossil Mammals  
China Lecture Series – Quest for Lifelong Learning  
Community Foundation of Upper St. Claire  
Upper St. Claire Township  
Pittsburgh, Pennsylvania
2008. Carnegie’s Dinosaurs  
Popular scientific lecture on Carnegie *Dinosaurs In Their Time* exhibit  
Friendship Village Lectures  
Upper St. Claire Township  
Pittsburgh, Pennsylvania
2007. Ecomorphological diversification of Mesozoic mammals and testing the molecular evolutionary hypotheses  
School of Biological Sciences  
University of Hong Kong  
Hong Kong, CHINA
2007. Origins of mammals (popular scientific talk)  
Informal Presentation for Café Scientifique  
Café Scientifique (Pittsburgh Group of a worldwide network of scientific clubs)
2007. Fossils, furs, and origins of mammals  
July and September Lectures for the Carnegie Museum Docents
2007. Ecomorphological diversification of Mesozoic mammals and testing the molecular evolutionary hypotheses  
Institut für Paläontologie  
Universität Bonn  
Bonn, GERMANY
2007. Origin and Earliest Evolution of Mammals (Invited keynote speaker)  
The Crafoord Symposium  
Institut für Geowissenschaften  
Universität Tübingen  
Tübingen, GERMANY
2007. Ecomorphological diversification of Mesozoic mammals  
University of Colorado Museum  
University of Colorado  
Boulder, Colorado
2007. Origins of Mammals  
Departmental Seminar  
Department of Anatomy  
Northeastern Ohio Universities College of Medicine (NEOUCOM)  
Rootstown, Ohio
2006. Fossils, furs, and origins of mammals  
Invited popular scientific lecture  
Sigma Xi Society Chapter of the General Motors Co. Research Headquarters  
GM Tech Center  
General Motors Corporation  
Warren, Michigan

- 2006. Lecture for donor appreciation event  
Carnegie Museums of Pittsburgh Trustees
- 2006. Mammals in the shadow of dinosaurs (Popular scientific talk)  
Pittsburgh Rock Hound Club
- 2005. Origins and earliest anatomical evolution of mammals  
Symposium for the 10th Anniversary of Prehistorical Journey Exhibit  
Denver Museum of Nature and Science
- 2005. Divergence of marsupial and placental mammals: testing molecular evolutionary hypothesis with new fossil evidence (Departmental Seminar)  
Department of Organismic and Evolutionary Biology  
Harvard University
- 2005. Origins and earliest anatomical evolution of mammals  
Yale Geoscience Colloquium  
Department of Geology and Geophysics  
Yale University
- 2005. Recent Progress in Studies of Early Mammalian Evolution  
Department of Biological Sciences  
University of Pittsburgh
- 2005. Diversification of the earliest placental and marsupial mammals  
Bell Museum of Natural History &  
Department of Ecology and Evolution  
University of Minnesota at Twin City, MN
- 2005. Rise of mammals in the age of dinosaurs (Popular lecture)  
The Chinasaurus Dinosaurs Exhibit – Evening Public Lecture Series  
Science Museum of Minnesota, St. Paul, MN
- 2005. Early mammalian evolution (popular lecture for undergraduates)  
Department of Biology and Biology Students Club  
Saint Vincent College, Latrobe, PA.
- 2004. Rise of mammals in the Mesozoic and Fossil Record of China  
Committee for Research and Exploration (CRE)  
National Geographic Society (USA)  
(Invited research talk, delivered during CRE committee tour in Guilin, China)
- 2004. Search for early mammals (Popular lecture)  
Lecture for Pittsburgh Children’s Hospital Foundation  
Carnegie Museum of Natural History, Pittsburgh, PA
- 2004. Life in the shadow of dinosaurs – Mesozoic mammals (Popular lecture)  
Dine-With-Dinosaurs Lecture Series (Donor Cultivation Event)  
Carnegie Museum of Natural History, Pittsburgh, PA
- 2004. Mammals from China’s Feathered Dinosaur Site (Popular lecture)  
Lecture for the Distance Learning Programs, Section of Education  
Carnegie Museum of Natural History, Pittsburgh, PA
- 2004. Early mammalian evolution (lecture for undergraduates)  
Department of Biology  
Franciscan University of Steubenville, Steubenville, OH.
- 2004. Divergence & Earliest Evolution of Metatherians and Eutherians.  
Department of Biological Anthropology and Anatomy  
Duke University, Durham, NC.
- 2004. Mammals from China’s Feathered Dinosaur Site (Popular lecture).  
Geological Society of Pittsburgh, Pittsburgh, PA.
- 2004. Divergence & Earliest Evolution of Metatherians and Eutherians.  
Museum of Paleontology  
University of California at Berkeley, Berkeley, CA.
- 2004. Origins and Earliest Morphological Evolution of Mammals.  
Department of Integrative Biology  
University of California at Berkeley, Berkeley, CA.
- 2003. Early mammals (Popular lecture).  
The Evolution and Natural History course  
Department of Biological Sciences and Hunt Botanical Institute

2003. Carnegie Mellon University, Pittsburgh, PA.  
Convergent evolution of tribosphenic molars among Mesozoic mammals.  
Institute of Vertebrate Paleontology and Paleoanthropology  
The Chinese Academy of Sciences  
Beijing, China
2003. Origins of mammalian characters.  
Institute of Evolution and Prehistorical Life  
School of Earth and Space Sciences  
Peking University, Beijing, CHINA
2003. Brain evolution in early mammals.  
Department of Earth Sciences  
Nanjing University, Nanjing, CHINA
2003. Evolutionary studies of early mammals: current opportunities and future challenges  
Presentation to the Evaluation Panel  
“Outstanding Overseas Chinese Young Scientist Award” (Earth Sciences Division)  
National Science Foundation of China, Beijing, CHINA
2003. Early mammalian evolution.  
Seminar for “Foundation of Biology” Class (for non-science majors)  
Department of Biological Sciences  
University of Pittsburgh, Pittsburgh, PA.
2003. Pattern of anatomical evolution through cynodont-mammal transition.  
American Museum of Natural History  
New York City, NY.
2003. Evolution of mammaliaforms and cynodont-mammal transition.  
Department of Biology Research Seminars  
Georgia Southern University  
Statesboro, GA.
2003. Mammals from the feathered dinosaur site of China (Popular lecture)  
Georgia Southern Museum Evening Lecture Series  
Georgia Southern University  
Statesboro, GA.
2003. Cranial and dental evolution through the cynodont-mammal transition.  
Computed Tomography Laboratory  
Department of Geological Sciences  
University of Texas at Austin, Austin, TX.
2003. Mammals from the feathered dinosaur site of China (Popular lecture)  
Carnegie Museum of Natural History Powdermill Nature Reserve, Rector, PA.
2003. Evolution of the pectoral girdle in early mammals.  
Departmental Seminar Series  
Department of Pathology  
University of Pittsburgh School of Medicine  
Pittsburgh, PA.
2003. Recent discoveries of Mesozoic mammals from China  
Department of Geological and Planetary Sciences  
University of Pittsburgh, Pittsburgh, PA.
2002. Rise of mammals: how we get here from there (popular lecture)  
Donor cultivation event of Carnegie Museums of Pittsburgh  
Carnegie Museum of Natural History, Pittsburgh, PA.
2002. Evolution of mammaliaforms and cynodont-mammal transition.  
Center for Functional Anatomy and Evolution  
School of Medicine  
The Johns Hopkins University, Baltimore, MD.
2002. Stepwise transformations of mammalian biological features.  
Seminar series on “Evolutionary Transformations and Mass Extinctions.”  
Museum für Naturkunde zu Berlin & Humboldt Universität  
Berlin, GERMANY.
2002. Origin of mammals and their earliest anatomical evolution.  
Graduate Seminar



- The Nanjing Institute of Geology & Palaeontology  
The Chinese Academy of Sciences, Nanjing, CHINA.
2002. New evidence on early eutherian evolution.  
Department of Earth Sciences  
Nanjing University, Nanjing, CHINA.
2002. Recent advancement in evolutionary studies of mammals.  
Seminar for scientific and exhibits staff  
The Shanghai Museum of Science and Technology  
Shanghai, CHINA.
2002. Searching and digging dinosaurs in Gobi desert of China (Popular lecture).  
Carnegie Museum of Natural History Powdermill Nature Reserve, Rector, PA.
2002. Postcranial evolution of in early mammals.  
Faculty Research Seminar in Molecular, Cell, and Developmental Biology  
Department of Biological Sciences  
University of Pittsburgh, Pittsburgh, PA.
2002. Searching for dinosaurs on the Silk Road (Popular lecture).  
Carnegie Museum Evening Lecture Series  
Carnegie Museum of Natural History, Pittsburgh, PA.
2001. Pattern of transformation of mammalian features.  
Seminars in Ecology and Evolution  
Department of Biological Science, University of Pittsburgh, Pittsburgh, PA.
2001. Origins of mammalian anatomical characteristics.  
Departmental Seminar Series  
Department of Biological Sciences,  
Duquesne University, Pittsburgh, PA.
2001. Life in the shadow of dinosaurs: early mammals (Popular lecture).  
Lecture for Evolution and History of Life (undergraduates of non-science majors),  
Department of Biological Sciences and Hunt Botanical Institute  
Carnegie Mellon University, Pittsburgh, PA.
2001. Origins and transformation of the mammalian characteristics.  
Zoologisches Kolloquium im SS 2001  
Fakultät für Biologie, Zoologisches Institut  
Eberhard Karls Universität, Tübingen, GERMANY.
2001. Early mammal evolution – the new fossil records (Popular lecture).  
Carnegie Museum Powder Mills Nature Reserve, Rector, PA.
2001. Dual evolution of tribosphenic mammals.  
Institute of Paleobiology, Polish Academy of Sciences  
Warsaw, POLAND
2001. Evolution of hearing in whales (Popular lecture).  
The Pittsburgh Geological Society, Pittsburgh, PA.
2000. Early mammal evolution (Invited Speaker for Scientific Lecture).  
Science Fiction Writers Conference (Confluence 2000), Pittsburgh, PA.
2000. Life in the shadow of dinosaurs (Popular lecture).  
Foundation of Biology (Freshman Class Seminar)  
University of Pittsburgh, Pittsburgh, PA.
1999. New Mesozoic mammals from China.  
Geological Studies Unit  
Indian Statistical Institute, Calcutta, INDIA.
1999. Freshman Seminar (Popular lecture for non-science undergraduates).  
School of Arts and Sciences  
University of Pittsburgh, Pittsburgh, PA.
1999. Mammals from the feathered dinosaur site of China (Popular lecture).  
The Pittsburgh Geological Society, Pittsburgh, PA.
1998. Origins of underwater hearing of whales.  
Department of Anatomical Sciences  
Health Sciences Center, State University of New York, Stony Brook  
Stony Brook, NY.

- 1998. Evolution of auditory structures in cetaceans.  
Museum of Natural Sciences  
Louisiana State University, Baton Rouge, LA.
- 1998. Evolution of hearing in whales (Invited Science Speaker).  
Science Fiction Writers Conference (Confluence 1998)  
Pittsburgh, PA.
- 1997. Life in the shadow of dinosaurs: Mesozoic mammals (Popular lecture).  
Public lecture series for “The age of dinosaurs lives on” exhibits  
Carnegie Museum of Natural History, Pittsburgh, PA.
- 1996. Evolution of hearing in whales.  
Joint Departmental Seminar Series of Biological Sciences  
Carnegie Mellon University and University of Pittsburgh, PA.  
(presented at University of Pittsburgh)
- 1995. Sister-group relationships of mammals and early mammalian evolution. Carnegie  
Museum of Natural History, Pittsburgh, PA.
- 1994. Three-dimensional model of the mammalian cochlea.  
South Carolina Bioengineering Council, Charleston, South Carolina.
- 1993. Anatomical evolution in the ear region of cetaceans.  
Marine Biology Research Consortium, Charleston, South Carolina.
- 1991. New evidence on mammalian middle ear evolution.  
Department of Paleobiology, National Museum of Natural History,  
Smithsonian Institution, Washington, DC.
- 1991. Transformation of the mammalian incus.  
Department of Otology and Laryngology.  
Harvard Medical School & Massachusetts Eye and Ear Infirmary  
Boston, MA.
- 1991. Evolutionary transformation of mammalian ear structures.  
Department of Biology, College of Charleston  
Charleston, South Carolina.
- 1986. Institute of Vertebrate Paleontology and Paleoanthropology  
The Chinese Academy of Sciences.  
Beijing, CHINA.
- 1986. Pattern of evolution of the facial nerve course in Primates.  
Museum of Paleontology, University of California at Berkeley  
Berkeley, CA.