

MARK ALLEN NORELL
CURATOR, DIVISION CHAIR AND PROFESSOR
DIVISION OF PALEONTOLOGY

HIGHEST DEGREE EARNED

Ph.D.

AREA OF SPECIALIZATION

Evolution of avian dinosaurs

EDUCATIONAL EXPERIENCE

Ph.D. in Biology, Yale University, 1988

M.Phil. Yale University, 1986

M.S. in Biology, San Diego State University, 1983

B.S. in Zoology, California State University, Long Beach, 1980

PREVIOUS EXPERIENCE IN DOCTORAL EDUCATION

FACULTY APPOINTMENTS

Adjunct Associate Professor, Department of Biology, Yale University, 1995-1999

Adjunct Assistant Professor, Department of Biology, Yale University, 1991-1995

Lecturer, Department of Biology, Yale University, 1989

COURSES TAUGHT

Richard Gilder Graduate School, Grantsmanship, Ethics and Communication, 2008-present

Guest Lecturer- EESC G9668y Seminar in vertebrate paleontology. Origin and evolution of the theropod pectoral girdle, 2007

EESC G9668y Seminar in vertebrate paleontology. A Total Evidence Approach to Lizard Phylogeny, 2006

Columbia University directed research, 2000

Columbia University, Dinosaur Biology, 4 lectures, 1996

Yale University, Evolutionary Biology, 6 lectures, 1995

CUNY, Paleobiological methods, 2 lectures, 1994

GRADUATE ADVISEES

Sheana Montanari, Richard Gilder Graduate School, 2008-present

Stephen Brusatte, Columbia University, 2008-present

Amy Balanoff, Columbia University, 2005-present

Alan Turner, Columbia University, Ph.D. candidate, 2004-present

Sterling Nesbitt, Columbia University, Ph.D. candidate, 2004-present

Daniel Ksepka, Columbia University, Ph.D. candidate, 2002-present

Sunny Hwang, Columbia University, Ph.D. candidate, 2000-present

Matthew Mhlbacher, Columbia University, Ph.D. candidate, 2001-2004

Diego Pol, Columbia University, 1999-2004

Xu Xing, IVPP, 2000-2002

Peter Makovicky, Columbia University, 1996-2001

Dan Chure, Columbia University, 1995-1999

Alexander Kellner, Columbia University, 1996

GRADUATE COMMITTEES

Michelle Spalding, Columbia University, 2005- present
Sterling Nesbitt, Columbia University, 2004-present
Alan Turner, Columbia University, chair, 2004-present
Daniel Ksepka, Columbia University, chair, 2002- present
Sunny Hwang, Columbia University, chair, 2000-present
Jun Liu, Columbia University, 2000-present

RESEARCH GRANT SUPPORT

National Science Foundation, “Collaborative Research: Life History Strategies, Growth Rates, and Microstructural Character Evolution Across the Coelurosaurian/Avialan Transition,” \$72,488, August 15, 2002 – July 31, 2006
National Science Foundation, “Collaborative Research: ATOL: Archosaur Phylogeny -- a Total Evidence Approach at Fine Taxonomic Levels” (co-PI with G. Barrowclough and J. Cracraft), \$1,733,737, October 1, 2002 – September 30, 2007

RECENT ARTICLES IN REFEREED JOURNALS (2003-2008)

Xu, X, Q. Zhao, M. Norell, D. Hone, X. Wang, F. Han, and Y. Guo. Submitted. New feathered maniraptoran dinosaur fossil that fills morphological gap in avian origin. *Nature*.

Balanoff, A., M.A. Norell Y. Kobiyashi, Y. Matsufune and X. Xu. Do oviraptors have bird brains? Submitted. *Science*.

Conrad, J.A., and M.A. Norell. Submitted. New data on the evolutionary history of the Iguanidae (Squamata: Iguania). *Journal of Herpetology*.

Conrad, J.A., M.A. Norell and J.C. Ast. Submitted. A combined evidence phylogenetic analysis of Anguimorpha (Reptilia: Squamata)

Balanoff, A., M.A. Norell Y. Kobiyashi, Y. Yatsufune and X. Xu. Submitted. Cranial Osteology of the theropod dinosaur *Incisivosaurus gauthieri*. *Novitates*.

Bever, G. and M.A. Norell. In prep. The neonate skull of *Byronosaurus* (Troodontidae) with observations on the cranial ontogeny of coelurosaurian theropods. *Novitates*.

Turner, A.H., S.J. Nesbitt, and M.A. Norell. Submitted. A large alvarezsaurid from the Late Cretaceous of Mongolia. *Novitates*.

Nesbitt, S.J., A.H. Turner, M. Spaulding, J.L. Conrad and M.A. Norell. Submitted. The theropod furcula. *Journal of Anatomy*

Dingus, L., D.B. Loope, D. Dashzeveg, C.C Swisher III, C. Minjin, M.J. Novacek, and M.A. Norell. 2008. The Geology of Ukhaa Tolgod (Djadokhta Formation, Upper Cretaceous, Nemegt Basin, Mongolia). *American Museum Novitates*.

Eberth, D.A., Y. Kobayashi, Y.-N. Lee, O. Mateus, F. Therrien, D. Zelenitsky, P. Makovicky, B. Davaadorj, and M. Norell. In press. Assignment of *Yamaceratops dorn gobiensis* and associated redbeds at Shine Us Khudag (Eastern Gobi, Dorn gobi Province, Mongolia) to the Javkhant Formation (Upper Cretaceous). *Journal of Vertebrate Paleontology*.

Norell, M.A., J.M. Clark, P.J. Makovicky, R. Barsbold, and T. Rowe. In prep. A revision of *Saurornithoides*. *Novitates*.

- Pol, D., A.H. Turner, and M.A. Norell. In press. Morphology of the Late Cretaceous Crocodylomorph *Shamosuchus djadochtaensis* and a discussion of neosuchian phylogeny as related to the origin of Eusuchia. *Bulletin of the American Museum of Natural History*.
- Conrad, J.L., and M.A. Norell. 2008. The braincases of two glyptosaurines (Anguinae, Squamata) and anguid phylogeny. *Novitates*.
- Turner, A.H., D. Pol, J.A. Clarke, G.M. Erickson and M.A. Norell. 2007. A Basal dromaeosaurid and size evolution preceding avian flight. *Science* 317(5845): 1378-1381.
- Turner, A.H., P.J. Makovicky, and M.A. Norell. 2007. Feather quill knobs in the dinosaur *Velociraptor*. *Science* 317(5845): 1721.
- Conrad, J.L. and M.A. Norell. In press. The braincases of two glyptosaurines (Anguinae, Squamata) and anguid phylogeny. *Novitates*.
- Balanoff, A.M., M.A. Norell, G. Grellet-Tinner and M.R. Lewin. 2008. Digital preparation of a probable neoceratopsian preserved within an egg, with comments on microstructural anatomy of ornithischian dinosaurs. *Naturwissenschaften*.
- Norell, M.A., K.-Q. Gao, and J. Conrad. 2008. A new Platynotan Lizard (Diapsida: Squamata) from the Late Cretaceous Gobi Desert (Omnogov), Mongolia. *Novitates* 3605:1-22.
- Codd, J., P. Manning, M.A. Norell, and S. Perry. 2007. Avian-Like Breathing Mechanics in Maniraptoran Dinosaurs. *Proc. Roy. Soc. B*. (doi10.1098/rspb.2007.1233)
- Dingus, L., and M.A. Norell. 2007. The Bone Collector. *Discover*, March: 38--43.
- Turner, A.H.*, S.H. Hwang, M.A. Norell. 2007. A small derived theropod from Öösh, Early Cretaceous, Baykhangor Mongolia. *American Museum Novitates* 3557: 1--27. (Sponsor Mark Norell)
- Conrad, J.L. and M.A. Norell. 2006. High-resolution x-ray computed tomography of an Early Cretaceous gekkonid (Squamata) from Oosh (Ovorkhangai; Mongolia). *Historical Biology PrEview*, online publication date May 18.
- Ksepka, D.T.* and M.A. Norell. 2006. *Erketu ellisoni*, a long-necked sauropod from Bor Guve, (Dornogov Aimag, Mongolia). *American Museum Novitates* 3508: 1-16. (Sponsor: Mark Norell)
- Makovicky, P. J., and M. Norell. 2006. *Yamaceratops dornogobiensis*, A New Primitive Ceratopsian (Dinosauria: Ornithischia) from the Cretaceous of Mongolia. *Amer. Mus. Nat. Hist. Novitates* 3530:42 pp.
- Nesbitt, S.J.* and Norell, M.A. 2006. Extreme convergence in the body plans of an early suchian (Archosauria) and ornithomimid dinosaurs (Theropoda). *Proceedings of Royal Society of London B*, 273:1045-1048. (Sponsor: Mark Norell)
- Nesbitt, S.J.*, Turner, A.H.*, Erickson, G.M. and Norell, M.A. 2006. Prey choice and cannibalistic behavior in theropod dinosaurs. *Proceedings of the Royal Society B* 273: 1045-1048. (Sponsor: Mark Norell)
- Norell, M.A., J.A. Clark, A.H. Turner*, P.J. Makovicky, R. Barsbold, and T. Rowe. 2006. A New Dromaeosaurid Theropod from Ukhaa Tolgod (Ömnögov, Mongolia). *American Museum Novitates*, 3545: 1--51. (Sponsor Mark Norell)
- Pol, D., and M.A. Norell. 2006. Uncertainty in the age of fossils and the stratigraphic fit to phylogenies. *Systematic Zoology* 55(3):512--521.
- Xu, X., and M.A. Norell. 2006. Non-Avian dinosaur fossils from the Lower Cretaceous Jehol Group of western Liaoning, China. *Geological Journal* 41: 419--437.

- Andres, B., and M.A. Norell. 2005. The first record of a pterosaur from the Lower Cretaceous sediments of Öösh (Omnogov: Mongolia). *Novitates* 3472: 1-6.
- Dyke, G.J., and M.A. Norell. 2005. The Hind Limb Proportions of *Caudipteryx* – Flightless Bird or Feathered Dinosaur? *Paleontologica Polonica* 50(1): 101-116.
- Ksepka, D., K.-Q. Gao and M.A. Norell. 2005. A new choristodere from the Cretaceous of Mongolia. *Novitates* 3468: 1-22.
- Norell, M.A. and X. Xu. 2005. Feathered dinosaurs. *Annual reviews of Earth and Planetary Sciences* 33: 8.1-8.23
- Turner, A.H.,* M.A. Norell, and D. Pol. 2005. Anatomy and relationships of *Shamosuchus djadocthaensis* (Crocodyliformes, Neosuchia) from the Late Cretaceous of Mongolia. *Journal of Vertebrate Paleontology* 25(3): 125A. (Sponsor: M. Norell)
- Clarke, J.A., and M.A. Norell. 2004. New avialan remains and a review of the known avifauna from the late Cretaceous Nemegt Formation of Mongolia. *Novitates* 3447:1-12.
- Erickson, G.M., P.J. Makovicky, P.J. Currie, M.A. Norell, S. Yerby, and C.A. Brochu. 2004. Gigantism and comparative life-history parameters of tyrannosaurid dinosaurs. *Nature* 430: 772-775.
- Hwang, S., M.A. Norell, Q. Ji, and K.-Q. Gao. 2004. A large compsognathid from the Early Cretaceous Yixian Formation of China. *Journal of Systematic Palaeontology* 2(1):13-30.
- Ji, Q., M.A. Norell, P.J. Makovicky, K.-Q. Gao. S.-A. Ji, and C. Yuan. 2004. An early ostrich dinosaur and implications for ornithomimosaur phylogeny. *Novitates* 3420:1-19.
- Ksepka, D., M.A. Norell. 2004. Ornithomimosaur cranial material from Ukhaa Tolgod (Omnogov, Mongolia). *Novitates* 3448:1-4.
- Norell, M. and S. Hwang, 2004. A troodontid dinosaur from Ukhaa Tolgod (Late Cretaceous Mongolia). *Novitates* 3446:1-9.
- Pol, D. and M.A. Norell. 2004. A new crocodyliform from Zos Canyon, Mongolia. *Novitates* 3445:1-36.
- Pol, D., M.A. Norell, and M.E. Siddall. 2004. Measures of stratigraphic fit to phylogeny and their sensitivity to tree size, tree shape and scale. *Cladistics* 20(2004)64-75.
- Pol, D., and M.A. Norell. 2004. A new gobiosuchid crocodyliform taxon from the Cretaceous of Mongolia. *Novitates* 3458: 1-31.
- Xu, X. and M.A. Norell. 2004. Basal tyrannosauroids from China and evidence for protofeathers in tyrannosauroids. *Nature* 431:680-684.
- Xu, X. and M.A. Norell. 2004. A new troodontid dinosaur with avian-like sleeping-posture from China. *Nature* 431:838-841.
- Gatesy, J., G. Amato, M. Norell, R. DeSalle, and C. Hayashi. 2003. Combined support for wholesale taxic atavism in gavialine crocodylians. *Systematic Biology* 52(3):403-422.
- Hill, R.A., L.M. Witmer, M.A. Norell. 2003. A new specimen of *Pinacosaurus grangeri* (Dinosauria: Ornithischia) from the Late Cretaceous of Mongolia: ontogeny and phylogeny of ankylosaurs. *Novitates* 3395: 1-29.
- Makovicky, P.J., M.A. Norell, J.M. Clark, and T. Rowe. 2003. Osteology of *Byronosaurus jaffei* (Theropoda: Troodontidae). *Novitates* 3402:1-21.
<http://www.bioone.org/bioone/?request=get-toc&issn=0003-0082&volume=402>

Norell, M.A., and W. Wheeler. 2003. Missing Element Replacement Data analysis: a randomization approach to understanding the effects of missing data. *Journal of Vertebrate Paleontology* 23(2)275-283.

SPECIAL RECOGNITION/AWARDS

Library Journal "Best Science Books of 2005" for *Unearthing the Dragon*.

Science News of the Year 2004 for "Tyrannosaur growth"

Scientific American Top Science stories of 2004 for "tyrannosaur growth"

Scientific American top science stories of 2001 for 'feathered dinosaur'

Science News top ten stories of 2001 for the ornithomimid beak

American Library Association's "The Best of the Best from the University Presses: Books You Should Know About." Award. Summer 2001. For "*Discovering Dinosaurs*"

Distinguished Alumnus, College of Natural Sciences and Mathematics. California State University, Long Beach. May 2000

National Council of Teachers of English- Orbis Pictus Award Committee noteworthy title 2000- for *A Nest of Dinosaurs*

Macy's Leader of New York City for 1998

American Bookseller "Pick of the Lists for 1996" for *Velociraptor*

Scientific American Young Readers Book Award of 1995 for *Discovering Dinosaurs*

Listed in "American Men and Women of Science" 1995-present

Time Magazine Top Ten Science Stories of the Year 1994 and 1996

Honorary member The New York Paleontological Society 1994

Discover Magazine Top 75 Science Stories of 1993, 1994, 1996, 1998, 2001

Listed in "Who's Who in America" 1995-present

Dinosaur Society Award for one of the top ten books of 1993 for *Triceratops*

Listed in "Who's Who in Science and Engineering", 1993-present

John Spanger Nicholas Prize for best thesis, Yale University, 1988

Yale University Miles Fellowship, 1987

Yale University John Enders Fellowship, 1987

Society of Vertebrate Paleontology Romer Prize for best student paper, 1987

Sigma Xi, Grant in Aid of Research, 1985

American Museum Graduate Study Program, 1985

Yale University Graduate Fellowship, 1983, 1984, 1985, 1986