ANNE M. BRONIKOWSKI
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EDUCATION

Ph.D. 1997 Committee on Evolutionary Biology, University of Chicago
Drs. Stevan J. Arnold & Brian Charlesworth, co-advisors

M.S. 1994 Committee on Evolutionary Biology, University of Chicago
Dr. Jeanne Altmann, advisor

B.S. 1987 Biochemistry and Mathematical Biology, Marquette University, Milwaukee, WI
(Graduated magna cum laude, Mathematics minor, and member of Phi Beta Kappa)
Dr. Walter Fredericks, advisor

POSITIONS HELD

6/04 – present Assistant Professor, Dept. of Ecology, Evolution and Organismal Biology, Iowa State University, Ames IA
6/02 – 6/04 Adjunct Assistant Professor, Dept. of Zoology and Genetics, Iowa State University, Ames, IA
7/99 – 6/02 NIH NRSA Postdoctoral Fellow, Dept. of Zoology, University of Wisconsin, Madison, WI
9/97 – 7/99 NSF DBI 'Biosciences related to the environment' Postdoctoral fellow, Dept. of Ecology and Evolutionary Biology, University of California, Irvine
9/91 – 9/97 Graduate Student, Committee on Evolutionary Biology, U. Chicago, Chicago, IL.
5/91 - 9/91 Chicago Zoological Society Research Assistantship in Evolutionary Genetics, with Dr. Carole Ober, Department of Human Genetics, University of Chicago
2/88-5/91 Actuarial Analyst, Towers Perrin, Chicago, IL,

PEER-REVIEWED PUBLICATIONS

Robert K, AK Rossini & **AM Bronikowski**. **2007**. Testing the free radical theory of aging hypothesis: Physiological differences in long lived and short lived Colubrid snakes. Aging Cell 6: 395 - 404.

Sparkman A, SJ Arnold & **AM Bronikowski. 2007.** An empirical test of evolutionary theories for reproductive senescence and reproductive effort in the garter snake *Thamnophis elegans*. Proceedings of the Royal Society of London B **274**: 943 – 950.

Bronikowski AM, TJ Morgan, T Garland Jr & PA Carter. **2006.** Evolution of aging and age related physical decline in mice selectively bred for high voluntary exercise. Evolution 60: 1494-1508.

Promislow DEL & **AM Bronikowski**. **2006**. The Evolutionary Genetics of Senescence. Pp. 464 – 481 In *Evolutionary Genetics: Concepts and Case Studies* (Wolf J & Fox C eds). Oxford University Press, U.K.

Gammie SC, NS Hasen, TA Awad, AP Auger, HM Jessen, JB Panksepp & **AM Bronikowski**. **2005**. Gene array profiling of large hypothalamic CNS regions in lactating and randomly cycling virgin mice. Molecular Brain Research 139: 201-211.

Bronikowski AM & DEL Promislow. **2005**. Testing evolutionary theories of aging in the wild. Trends in Ecology and Evolution. 20(6) 271-273.

Bronikowski AM, JS Rhodes, T Garland, Jr., TA Prolla, T Awad, SC Gammie. **2004**. The evolution of gene expression in mouse hippocampus in response to selective breeding for increased locomotor activity. Evolution 58: 2079 - 2086.

Bronikowski AM, PA Carter, TJ Morgan, T Garland Jr., N Ung, TD Pugh, R Weindruch, & TA Prolla. **2003**. Lifelong voluntary exercise in the mouse prevents age-related alterations in gene expression in the heart. Physiological Genomics 12: 129 – 138. Featured in the editorial focus "In for the long run" by S. Welle and S. B. Glueck, Physiological Genomics 12: 71 – 72, 2003.

LJ Martin, MC Mahaney, **AM Bronikowski**, KD Carey, B Dyke, AG Comuzzie. **2002**. Lifespan in captive baboons is heritable. Mechanisms of Aging and Development 123: 1461 - 1467.

Bronikowski AM, S. Alberts, J. Altmann, C Packer, KD Carey & M Tatar. **2002**. The aging baboon: Comparative demographic senescence in a model non-human primate. PNAS 99: 9591 - 9595. Featured in Reuters Health "Baboon study points to aging genes" by A. McCook, 26 June 2002 press releases.

Bronikowski AM, TJ Morgan, T Garland Jr., & PA Carter. **2002**. Anti-oxidant gene expression in active and sedentary house mice selected for high voluntary wheel-running behavior. Genetics 161: 1763 - 1769.

Bronikowski AM, ME Clark, H Rodd, & DN Reznick. **2002**. Population-dynamic consequences of predator-induced life-history variation in the guppy (*Poecilia reticulata*). Ecology 83: 2194 – 2204 (see also Ecology 83: 3532).

Bronikowski AM, PA Carter, JG Swallow, IA Girard, JS Rhodes, & T Garland Jr. **2001**. Open-field behavior of house mice selectively bred for high voluntary wheel running. Behavior Genetics 31(3): 309 – 316.

Bronikowski AM & SJ Arnold. **2001**. Cytochrome *b* phylogeny does not match subspecific classification in the western terrestrial garter snake. Copeia 2001(2): 507-512.

Bronikowski AM, AF Bennett & RE Lenski. **2001**. Evolutionary adaptation to temperature. VIII. Effects of temperature on growth rate in natural isolates of *Escherichia coli* and *Salmonella enterica* from different thermal environments. Evolution 55(1): 33-40.

Bronikowski AM. 2000. Experimental evidence for the adaptive evolution of growth rate in the garter snake (*Thamnophis elegans*). Evolution 54(6): 1760-1767

Bronikowski AM & SJ Arnold. **1999**. The evolutionary ecology of life-history variation in the garter snake *Thamnophis elegans*. Ecology 80: 2314 - 2325

Paukstis, GL, JK Tucker, **AM Bronikowski** & FJ Janzen. **1999**. Survivorship of aerially exposed zebra mussels (*Dreissena polymorpha*) under laboratory conditions. Journal of Freshwater Ecology 14: 511-517

Bronikowski AM & J Altmann. **1996**. Foraging in a variable environment: weather patterns and the behavioral ecology of baboons. Behavioral Ecology and Sociobiology 39(1): 11-25

Bronikowski AM & C Webb. **1996**. A critical review of variability measures used in behavioral ecology studies. Behavioral Ecology and Sociobiology 39(1): 27-30 (reviewed independently of above paper).

SUBMITTED MANUSCRIPTS

AM Bronikowski. **2008**. Invited Mini-review. The evolution of aging in reptiles. In revision. AGE: Journal of the American Aging Association.

Robert, K, C Vleck & **AM Bronikowski**. The effects of maternal corticosterone level on offspring early life history in fast- and slow-growth garter snakes. Submitted to Hormones and Behavior

GRANT SUPPORT

Pending Soon External: (submission deadline 1/9/08)

2008 NSF DEB "LTREB: Stochastic demography, stochastic gene flow, and the evolution of aging in the garter snake" Requested Budget: $450,000

Current External:

2004 NSF DEB-0323379 "Evolution and Ecology of Aging in Natural Populations of Long-Lived Vertebrates" AM Bronikowski=PI, 1/1/04 – 8/31/08, $250,000
plus REU Supplement, $6000, Summer 2005
plus REU Supplement, $6000, Summer 2006
plus ROA Supplement, $28,138 3/15/07 – 3/31/08

2006 NIH NIA RO1 AG03032901 "Genetics of Reproductive Senescence" A. M. Bronikowski = CoPI, 9/22/06 – 9/21/09. AMB Budget = $160,000

2006 Joint NESCent / NCEAS Working Group Award. "Evolutionary Ecology of Primate Life Histories" AM Bronikowski = CoPI, 8/2007 – 12/2008

Previous Substantive:

2006 Internal Award (ISU: Comparative Integrated Animal Genomics. "Comparative Genomics of DNA Repair and Aging" 7/1/06 – 6/30/07. $24,000

2006 ISU: Program for Gerontology. "IGF1 and Aging" 8/15/06 – 12/31/06, $7500 RA for graduate student research assistantship

1999 NIH National Research Service Award Post-doctoral Fellowship, (with Dr. T. Garland, Jr. University of Wisconsin - Madison), 3 years, $111,000 (F32AG05784)

1997 NSF Post-doctoral Fellowship Biosciences Related to the Environment, (advisor: Dr. A. F. Bennett, University of California - Irvine), 2 years, $80,000 (DBI-9750218)

1997 Michael Guyer Post-doctoral Fellowship, (sponsor: Dr. T. Garland, Jr., University of Wisconsin - Madison), 1 year, $20,000, (declined for NSF fellowship)

1995 NSF Dissertation Improvement Grant, $11,000 DEB95-20694

1992 Howard Hughes Medical Institute, 5-year Predoctoral Fellowship in Mathematical Biology, $120,000

1991 The Baxter Foundation, 1-year Predoctoral "William B. Graham" Baxter Fellow in Genetics, $16,000