

Department of Geology
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Education

Ph.D., Geosciences, University of Iowa, 2000
M.S., Earth & Planetary Science, University of New Mexico, 1995
B.A., Geology, Hamilton College, 1991

Professional Experience

Associate Professor of Geology, Cornell College, 2006 – present
Geosciences Consultant, ACT, 2008, 2010
Visiting Scientist, University of New Mexico, 2006 – 2007
Chair, Department of Geology, Cornell College, 2003 – 2006; 2009-present
Chair, Environmental Studies Program, Cornell College, 2001 – present
Member, Center for Global and Regional Environmental Research, 2001 – present
Adjunct Assistant Professor, Department of Geosciences, University of Iowa, 2001 – present
Assistant Professor of Geology, Cornell College, 2000 – 2006
Visiting Lecturer in Geology, Cornell College, 1999

Fellowships & Awards

Campbell McConnell Sabbatical Fellowship, Cornell College, 2006
T. Anne Cleary Dissertation Research Fellowship, University of Iowa, 1999
Outstanding Teaching Assistant Award, University of Iowa, 1998
Richmond Area Speleological Society Howard Urbach Award, 1997
Trowbridge Award for Outstanding Geology Doctoral Student, University of Iowa, 1997
Associated Western Universities Fellowship, Los Alamos National Laboratory, 1993 – 1994

Regular Course Offerings

Physical Geology (GEO 111)	Climate Change (GEO 122)
Environmental Perspectives (ENV 101)	Climates of the Ice Age (GEO 322)
Environmental Geology (ENV 301)	Geology of a New Zealand (GEO 329)
Geomorphology (GEO 320)	Tectonics (GEO 214)

Publications

Published Manuscripts (Student authors in red)

Polyak, V. and Denniston, R. (2011) Paleoclimate Records in Caves *In* Culver, D. and White, W. (Eds). Encyclopedia of Caves, 2nd edition, Elsevier.

Haws, J. Funk, C., Benedetti, M., Bicho, N., Daniels, J., Minckley, T., Denniston, R., Jeraj, M., Gibaja, J. and Hockett, B. (2011) Paleolithic seascapes along the west coast of Portugal *In* Bicho, N., Haws, J., and Davis, L. (Eds). *Trekking the Shore: Changing Coastlines and the Antiquity of Coastal Settlement*. Springer, 450 p.

Denniston, R.F., Penn, S.C., Carpenter, S.J., and Budd, A.F. (2008) Constraints on Late Miocene Shallow Marine Seasonality for the Central Caribbean using $\delta^{18}\text{O}$ and Sr/Ca Ratios in a Fossil Coral. *In* Nehm, R.H. and A. F. Budd (Eds). *Evolutionary Stasis: Species and Communities through Geological Time*. Springer: New York, pp. 47-52.

- Denniston, R.F., Asmerom, Y., Polyak, V., McNeill, D.F., Klaus, J.S., Cole, P., and Budd, A.F. (2008) Caribbean Chronostratigraphy Constrained with U-Pb and $^{87}\text{Sr}/^{86}\text{Sr}$ Analysis of a Miocene Coral. *Geology*, **36**, 151-154.
- Denniston, R.F., DuPree, M., Asmerom, Y., Polyak, V., Dorale, J.A., and Carpenter (2007) Episodes of Increased Aridity in the Late Holocene Recorded by Stalagmites from Devils Icebox Cave, Central Missouri, USA. *Quaternary Research*, **68**, 45-52.
- Denniston, R.F., Asmerom, Y., Polyak, V., Dorale, J.A., Carpenter, S.J., Trodick, C., Hoye, B., and González, L.A. (2007) Synchronous millennial-scale climatic changes in the Great Basin and the North Atlantic during the last interglacial. *Geology*, **35**, 619-622.
- Baker, R.G., Bettis E.A. III, Denniston, R.F., González, L.A., Strickland, L.E. and Krieg, J.R. (2002) Holocene paleoenvironments in southeastern Minnesota--chasing the prairie-forest ecotone. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **177**, 103-122.
- Denniston, R.F., González, L.A., Polyak, V., Asmerom, Y., Reagan, M.K., and Saltzman, M.R. (2001) A high-resolution speleothem record of climatic variability during the Allerød-Younger Dryas transition in Missouri, central United States. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **176**, 147-155.
- Baker, R.G., Bettis, E.A., III, Denniston, R.F., and González, L.A. (2001) Plant remains, alluvial chronology, and cave speleothem isotopes indicate abrupt Holocene climatic change in Midwestern USA. *Global and Planetary Change*, **28**, 285-291.
- Denniston, R.F., González, L.A., Asmerom, Y., Sharma, R.H., and Reagan, M.K. (2000) Speleothem evidence for changes in Indian summer monsoon precipitation over the last ~2300 years. *Quaternary Research*, **53**, 196-202.
- Denniston, R.F., González, L.A., Asmerom, Y., and Reagan, M.K. (2000) Speleothem records of Holocene paleoenvironmental change in the Ozark Highlands, U.S.A. *Quaternary International*, **67**, 21-28.
- Denniston, R.F., Gonzalez, L.A., Semken, H.A., Jr., Baker, R.G., Recelli-Snyder, H., Reagan, M.K., and Bettis, E.A., III. (1999) Integrating stalagmite, vertebrate, and pollen sequences to investigate Holocene vegetation and climate change in the southern Midwest. *Quaternary Research*, **52**, 381-387.
- Denniston, R.F., Gonzalez, L.A., Baker, R.G., Asmerom, Y., Reagan, M.K., Edwards, R.L., and Alexander, C.E. (1999) Speleothem evidence for a sharp and long-term prairie-forest ecotone at the northeast border of the middle Holocene prairie peninsula. *The Holocene*, **9**, 671-676.
- Denniston, R.F., González, L.A., Asmerom, Y., Baker, R.G., Reagan, M.K. and Bettis, E.A. III. (1999) Evidence for increased cool season moisture during the middle Holocene. *Geology*, **27**, 815-818.
- Denniston, R.F., Shearer, C.K., Vaniman, D.T., and Layne, G.D. (1997) Minor and trace element distributions in fracture calcites from Yucca Mountain, Nevada. *Geochimica et Cosmochimica Acta*, **61**, 1803-1818.
- Hickmott, D.D., Herrin, J.M., Abel, R., George, M., Stimac, J., Gauerke, E.R., and Denniston, R.F. (1997) Environmental applications of the LANL nuclear microprobe. *Nuclear Instruments and Methods in Physics Research B*, **130**, 564-570.

Abstracts

- Denniston, R.F., Asmerom, Y., Polyak, V.J., Wyrwoll, K-H., Humphreys, W., Cugley, J., and Woods, D. (2011) Tropical cyclone origin of mud layers in stalagmites from tropical Australia. Geological Society of America Annual Meeting Abstracts with Programs, v. 43, No. 5 (session: "Extreme Climate and Weather Events: Past, Present, and Future").

- Denner, M.** and Denniston, R.F. (2011) Combined Stalagmite and Limpet-Based Holocene Paleoclimate Reconstructions from Coastal Portugal. *123rd Annual Meeting of the Iowa Academy of Science*, Wartburg College, Waverly, Iowa.
- Campbell, N.** and Denniston R.F. (2011) Reconstructing tropical cyclone frequency using mud layers in speleothems. *123rd Annual Meeting of the Iowa Academy of Science*, Wartburg College, Waverly, Iowa.
- Greaves, E.** and Denniston, R.F. (2011) Indonesian-Australian Summer Monsoon Variability In The Early Holocene. *123rd Annual Meeting of the Iowa Academy of Science*, Wartburg College, Waverly, Iowa.
- Michaelson, A.**, Denniston, R.F., Asmerom, Y., and Polyak, V. (2009) Trace elemental analysis of a northern Australian stalagmite. *Geological Society of America Spring Meeting Abstracts with Programs*, **41**, No. 4, p.
- Ellerbroek, R.** and Denniston, R.F. (2009) Insolation, ENSO, and solar controls on northern Australia moisture. *Annual Meeting of the Iowa Academy of Science*.
- Krauter, E.** and Denniston, R.F. (2009) New age constraints on a stalagmite paleoclimate record from Western Australia. *Annual Meeting of the Iowa Academy of Science*.
- Rodzynek, K.J.**, Denniston, R.F., Asmerom, Y., Wyroll, K.H., and Humphreys, W. (2007) Australian Stalagmites Indicate Dominance of Summer Hemisphere Insolation and a Wetter Holocene than Pleistocene. *Geological Society of American Spring Meeting Abstracts with Programs*, **39**, p. 12.
- Moellers, L.**, Denniston, R.F., Carpenter, S.J., Dorale, J.A., Polyak, V., and Asmerom, Y. (2006) A stalagmite record of the penultimate deglaciation from northwestern Arkansas. *Geological Society of America Spring Meeting Abstracts with Programs*, **38**, p. 27.
- Krogmeier, D.** and Denniston, R.F. (2006) Late Pleistocene vegetation and climate change in the Midwest reconstructed using stalagmites from northeastern Arkansas. *Annual Meeting of the Iowa Academy of Science*.
- Lommler, M.**, Denniston, R.F., and Budd, A.F. (2006) Comparison of U/Ca and Sr/Ca ratios in Neogene corals from the Dominican Republic. *Geological Society of America Spring Meeting Abstracts with Programs*. **38**, No. 4, p. 75.
- Trodick, C.**, Denniston, R.F., Asmerom, Y., Polyak, V., Haws, J., Souto, P. (2006) U-Th chronologies of stalagmites from Almonda Cave, western Portugal. *Geological Society of America Spring Meeting Abstracts with Programs*. **38**, p. 27.
- Borowske, A.C.**, Denniston, R.F., Haws, J.F., Carpenter, S.J., and Dorale, J.A. (2005) A Stable Isotopic Analysis of an End Pleistocene-Age Stalagmite from Almonda Cave, West-Central Portugal. *Geological Society of American Spring Meeting Abstracts with Programs*, **37**, 5, p. 12.
- Cole, P.**, Denniston, R.F., Asmerom, Y., Polyak, V.Y., Donald F. McNeill, D.F., and Budd, A. (2005) Uranium-Lead Dating of a Coral from the Neogene Gurabo Formation, Dominican Republic. *Geological Society of American Spring Meeting Abstracts with Programs*, **37**, No. 5, p. 78.
- Hoye, B.**, Denniston, R.F. Carpenter, S.J., Jeff A. Dorale, J.A., Asmerom, Y. and Polyak, V.Y. (2005) Stable Isotopic Trends in a 23-16 ka Arkansas Stalagmite. *Geological Society of American Spring Meeting Abstracts with Programs*, **37**, No. 5, p. 12.
- Baker, R.G., Dorale, J.A., Bettis, E.A., Moss, P., and Denniston, R.F. (2004) Contrasts in prairie-forest border dynamics in the northern vs. southern Midwest. *American Quaternary Association 18th Biennial Meeting Abstracts with Programs*, Lawrence, KS, 107-108.
- Denniston, R.F. (2004) Preliminary geochemical analysis of corals from the Neogene Gurabo Formation, Dominican Republic. *116th Annual Meeting of Iowa Academy of Science*, Cedar Falls, Iowa, April 24.

- Denniston, R.F. and Penn, S. (2004) Suitability of corals from the Gurabo Formation, Dominican Republic, for geochemically-based SST reconstructions. *Geological Society of American North-Central Meeting Abstracts with Programs*, v. **36**, 52.
- Clements, A. and Denniston, R.F. (2004) Refining a High Resolution Climate Record from a Late Pleistocene New Zealand Speleothem: Stage 1 - Cross-Checking a Published Record. *Cornell College Student Symposium Abstracts with Programs*.
- Denniston, R., DuPree, M.A., Asmerom, Y., and Polyak, V.P. (2003) Paleoclimatic implications of U-series dating of aragonite and calcite stalagmites from central Nepal. *Geological Society of America Fall Meeting Abstracts with Programs*, **35**, 172.
- DuPree, M.A., Denniston, R.F., Asmerom, Y., and Carpenter, S.J. (2003) A 4000-year speleothem stable isotopic record from Devils Ice Box cave, central Missouri. *Geological Society of America Spring Meeting Abstracts with Programs*, Paper No. 19-1.
- Hartman, B.S., Gonzalez, L.A., Wulff, A.H. and Denniston, R.F. (2000) Carbon and oxygen isotopic analysis of speleothems from the Pokhara Valley, central Nepal: a record of seasonal to decadal variability in the Indian summer monsoon. *American Geophysical Union Fall Meeting Abstracts with Programs*, **81**, F32.
- Denniston, R.F., González, L.A., and Reagan, M.K. (2000) Mineralogic and stable isotopic characteristics of select Great Basin speleothems. *Geological Society of America Spring Meeting Abstracts with Programs*, **32**, A-11.
- Denniston, R.F. and Gonzalez, L.A. (2000) Holocene environmental change in the Ozarks as deduced from stalagmites. *16th Biennial American Quaternary Association Meeting Abstracts with Programs*, Fayetteville, AR, 5-7.
- González, L.A., Denniston, R.F., Reagan, M.K., Ciochon, R., and Asmerom, Y. (1999) The use of stalagmites in the study of the history of the Asian monsoon system. *Geological Society of America Fall Meeting Abstracts with Programs*, **31**, 89.
- Denniston, R.F., González, L.A., Reagan, M.K., and Asmerom, Y. (1999) A high-resolution record of Indian summer monsoon variability preserved by speleothem carbonate mineralogy. *Geological Society of America Fall Meeting Abstracts with Programs*, **31**, 153.
- Denniston, R.F., González, L.A., Reagan, M.K., and Asmerom, Y. (1999) Effects of the Younger Dryas on the carbon and oxygen isotopic compositions of a Missouri speleothem. *Geological Society of America Spring Meeting Abstracts with Programs*, **31**, 13.
- Denniston, R.F., Gonzalez, L.A., Semken, H.A., Reagan, M.K., and Asmerom, Y. (1998) Combining speleothem carbon and faunal assemblages to examine vegetation change in the southern Midwest. *Geological Society of America Fall Meeting Abstracts with Programs*, **30**, 167.
- Gonzalez, L.A., Denniston, R.F., Baker, R.G., and Reagan, M.K. (1998) Speleothem-based timing for prairie incursion in southeastern Minnesota and northeastern Iowa and its implication on temperature vs. changes in E-T balance during the mid-Holocene. *Geological Society of America Fall Meeting Abstracts with Programs*, **30**, 114.
- Denniston, R.F., Gonzalez, L.A., Asmerom, Y., Baker, R.G., and Reagan, M.K. (1998) Correlating speleothem carbon and pollen records from the southern Midwest: tracking Holocene vegetation changes. *American Quaternary Association Meeting Program with Abstracts*, Puerto Vallarta, 103.
- Denniston, R.F., González, L.A., Baker, R.G., Reagan, M.K., Bettis, E.A., III, Asmerom, Y. and Pickett, D. A. (1998) Effects of middle Holocene vegetation change on the oxygen and carbon isotopic composition of three midwestern speleothems. *American Geophysical Union Fall Meeting Abstracts with Program*, **79**, 107.
- Denniston, R.F. and Gonzalez, L.A. (1997) Microsampling and isotopic analysis of adjacent fluorescent/non-fluorescent band couplets in a Midwestern speleothem. *Geological Society of America Spring Meeting Abstracts with Programs*, **29**, 12.

- Denniston, R.F. and Shearer, C.K. (1995) A mineralogical approach to understanding fluid flow in shallow crustal regimes: application to forecasting the integrity of potential waste repositories. *WERC Meeting*, Las Cruces, NM.
- Denniston, R.F., Shearer, C.K., and Vaniman, D.T. (1994) Application of cathodoluminescence and minor-trace element micro-analysis for deciphering the crystallization history of calcite from shallow crustal regimes. *American Geophysical Union Spring Meeting Abstracts with Program*, Baltimore, **75**, 121.
- Denniston, R.F., Shearer, C.K., and Vaniman, D.T. (1994) An ion microprobe study of trace element (REE, Mn, Sr) zoning in calcite from shallow crustal regimes. *American Geophysical Union Fall Meeting Abstracts with Program*, San Francisco, **75**, 698.
- Denniston, R.F., Shearer, C.K., Vaniman, D.T., and Hickmott, D.D. (1993) Analysis of elemental zoning in calcites from fracture systems at Yucca Mountain, Nevada: preliminary investigations and results. *Fifth Annual Associated Western Universities Annual Meeting*, Carlsbad, NM, 72.
- Denniston, R.F., Gauerke, E., Shearer, C.K., Vaniman, D.T., and Hickmott, D.D. (1993) Trace element distributions in fracture calcites from Yucca Mountain, Nevada: implications for shallow crustal transport phenomena. *American Geophysical Union Fall Meeting Abstracts with Program*, San Francisco, **74**, 677.
- Tewksbury, B.J., Cunningham, A.C., and Denniston, R.F. (1991) A kinematic analysis of the Payne Lake leucogneiss, northwest Adirondack Lowlands, New York. *Geological Society of America Spring Meeting Abstracts with Program*, Baltimore, **23**, 193.

Non-Peer Reviewed Publications

- Denniston, R.F. and Denniston, J.R. (December 2008) So Just How Old is the Grand Canyon? (in French: Le grand canyon prend un coup de vieux), *La Recherche*, No. 425.
- Denniston, R.F. and Denniston, J.R. (2003) Cave Formations Reveal Climate and Archeological Change in *New Mexico Magazine*, New Mexico State Tourism Publication.
- Denniston, R.F. (1999 and subsequent editions) Geology of the Southwest, Geology of the Grand Canyon, Geology of Carlsbad National Park, in *Lonely Planet Guide to the Southwest: Arizona, New Mexico, Utah* (R. Rachioweicki, Ed.), Lonely Planet Publishers, Melbourne, 28-31, 430-431, 954.
- Denniston, R.F. (1999 and subsequent editions) Geology of North America, in *Lonely Planet Guide to the U.S.A.* (R. Rachioweicki, Ed.), Lonely Planet Publishers, Melbourne, 30-33.
- Denniston, R.F. (1999) Geology of the Rio Grande Rift, in *The History of Corrales, New Mexico* (C. Tidwell, Ed.), 16-21.

Invited Publications and Presentations

- “Here’s the Story of the Hurricane: Mud Layers in Northern Australia Stalagmites as Paleotempestology Record” University of Northern Iowa Department of Geosciences, September 2011.
- “The Holocene History of the Australian Monsoon” University of Dubuque Joint Science Department, October 2010.
- “Stalagmites as Paleoclimate Records” University of Northern Iowa Department of Geography, Geomorphology Course Guest Lecture, December 2009.
- “El Nino, the Sun, and the Australian Monsoon” University of Iowa Department of Geosciences Environmental Seminar, September 2009.
- "Formation of the Central American Isthmus and 5 Million Years of Faunal Turnover in the Caribbean" Edgewood College (Madison, WI) Environmental Studies Seminar, April 16, 2004.

- "Towards Caribbean Seasonal Sea Surface Temperature and Salinity Variability from Neogene Corals" University of Dubuque (Dubuque, IA) Department of Environmental Science Guest Lecture, November 14, 2003.
- "Stalagmites as Paleoclimatic Records" Augustana College (Rock Island, IL) Geology Department Seminar, April 25, 2003.
- "Understanding Climatic Change using Speleothems" University of Northern Iowa Department of Geography, Geomorphology Course Guest Lecture, April 21, 2003.
- "Paleoclimatic Implications of a Negative Oxygen Isotopic Excursion in Middle Holocene Stalagmites from the Midwest" University of North Dakota Department of Geology and Geological Engineering Leading Edge of Earth and Planetary Sciences Lecture Series, January 31, 2003.
- "The Not-So-Isolated Climate of the Northern American Interior" University of Iowa Department of Geoscience Environmental Seminar, October 9, 2002.
- "Paleo-precipitation and Vegetation Characteristics Deduced from Speleothems" University of Northern Iowa Earth Science Seminar, October 7, 2002.
- "Isotopes in the Midwest and Mineralogy in Nepal: Two Different Approaches to Paleoclimate Reconstructions using Speleothems" Iowa State University Department of Geology Guest Speaker Series, November 30, 2001.
- "Understanding Climatic Change using Speleothem Mineralogy, Growth Rates, and Stable Isotopic Compositions" University of Northern Iowa Department of Geography, Geomorphology Course Guest Lecture, April 24, 2001.
- "Holocene Shifts in Speleothem Isotopic Compositions and their Paleoenvironmental Implications" American Quaternary Association (AMQUA) Meeting, Fayetteville, Arkansas, May 2000.
- "The Use of Speleothems in Paleoclimatic Reconstruction" University of Iowa Department of Geoscience Weekly Seminar, May, 2000.
- "Stalagmites, Caves, and Climate Change" University of Iowa *Afternoon with a Scientist* Speaker Series, Iowa City, Iowa, April 13, 1999.
- "Great Basin Speleothems: A Way to Test Milankovitch Cyclicity?" Cornell College, Mt. Vernon, Iowa, January 31, 2000.

Supervised Undergraduate Research Projects

<i>Project Title</i>	<i>Student</i>	<i>Year</i>
Tropical Cyclones Reconstructions using Mud Layers in a Tropical Western Australia Stalagmite	Mike Barthelmes	2011
Tropical Cyclones Reconstructions using Mud Layers in a Tropical Western Australia Stalagmite	Dan Cleary	2011
Comparison of Middle Holocene Oxygen Isotopic Time Series from Australian Stalagmites	Elizabeth Greaves	2010
High-Precision U/Th Dates from Glory Hole Cave Stalagmites, Portugal	Megan Denner	2010
Sub-Decadal Climate Reconstructions from Late Holocene Aragonite Stalagmites from the Ning Bing Range, Kimberley, Western Australia	Nick Campbell	2010
Preliminary Dates on a Suite of Stalagmites from the Ning Bing Range, Kimberley, Western Australia	Bipul Timilsina	2009

Refining a U-Th Chronology for a Western Australia Stalagmite Paleoclimate Series	Emily Krauter	2008
Trace Element Characteristics of a Kimberley Australia Stalagmite	Abby Michaelson	2008
Investigating Late Pleistocene Australian Monsoon Variability	Becca Ellerbroek	2008
Growth Histories of Stalagmites from Western Australia: Implications for Reconstructing the Australian Monsoon over the Last Glacial Cycle	Kristyn Rodzinyak	2006
A Comparison of U/Ca and Sr/Ca-Based Sea Surface Temperatures from Caribbean Fossil Corals	Michael Lommler	2006
An Arkansas Stalagmite Record of the Penultimate Deglaciation: Part I	Lara Moellers	2005
An Arkansas Stalagmite Record of the Penultimate Deglaciation: Part II	Diana Krogmeier	2005
Reconstructing Growth Histories of Portuguese Stalagmites: Relationships to Heinrich Events	Charles Trodick	2005
U/Th Dating of Select Great Basin Stalagmites	Amanda Gibson	2005
Collection, Preparation, and Preliminary Chronology of Stalagmites from Coastal Portugal	Alyssa Borowske	2004
U-Pb Dating Pristine Neogene Corals from Dominican Republic	Peter Cole	2004
Construction of Chronologies and Stable Isotopic Trends of Ozark Stalagmites	Brian Hoye	2004
High-Resolution Stable Isotopic Analysis of Sea Surface Temperatures from Neogene Corals from Dominican Republic	Stephanie Penn	2003
High-Res. Stable Isotopic Analysis of a New Zealand Stalagmite	Alexa Clements	2003
A Late Holocene Speleothem Record from Devils Ice Box Cave, Central Missouri	Michelle DuPree	2002

External Grants: > \$10,000

<i>Organization</i>	<i>Title</i>	<i>Date</i>	<i>Amount</i>
National Science Foundation	RUI: Reconstruction of Recent and Late Holocene Tropical Cyclone Landfalls in Northwestern Australia using Flood Deposits in Aragonite Stalagmites	2011	\$98,000
Mellon Foundation	Enhancing the Integration of Humanities, Social Sciences, and Natural Sciences in Environmental Studies at Cornell College (one of two primary PI's)	2009	\$316,850
Center for Global & Regional Environmental Research	Speleothem Evidence for the Influences of ENSO and Solar Variability on the Holocene Australian Summer Monsoon	2009	\$27,000
University of Western Australia (Subcontract)	Speleothem Evidence for Late Pleistocene Australian Monsoon Variability	2008	\$14,000
Petroleum Research Fund	Dominican Republic Corals As High-Resolution Records Of Shallow Marine Paleoenvironmental Conditions Prior To Closure Of Panamanian Seaway	2004	\$35,000
Center for Global & Regional Environmental Research	Development of a High-Resolution Paleoclimate Data Set from New Zealand using Speleothem Growth Banding and Stable Isotopic Ratios	2002	\$16,140
National Science Foundation	Acquisition of an Alpha Spectrometry System for Research and Undergraduate Training in Geology and Environmental Science (with B. Greenstein)	2001	\$97,826
National Science Foundation	Collaborative Research: Timing of Late Holocene Changes in Summer Indian Monsoon Intensity as Recorded in Mineralogic Changes in Speleothems, Pokhara Valley, Central Nepal	2000	\$20,000

External Grants: < \$10,000

<i>Organization</i>	<i>Title</i>	<i>Date</i>	<i>Amount</i>
University of Western Australia (Subcontract)	Speleothem Evidence for Late Pleistocene Australian Monsoon Variability	2011	\$5,000
Iowa Science Foundation	High Resolution Stable Isotope Reconstructions of Portuguese Climate using Limpet Shells from Archeological Middens	2010	\$5,000
University of Western Australia (Subcontract)	Isotopic Analysis of Speleothems from Cape Range, Western Australia	2008	\$4,000
Iowa Science Foundation	Establishing Growth Histories for Stalagmites from Blanchard Springs Caverns, Northcentral Arkansas as a First Step Toward Paleoenvironmental Reconstructions	2006	\$5,000

Associated Colleges of the Midwest	Faculty Careers Enhancement Project: Construction of a 50,000 Year Paleoclimate Record for the Nazare Region, Portugal	2006	\$3,000
Iowa Science Foundation	Reconstructing Late Pleistocene Vegetation Change in the Ozarks using Stalagmites from Cosmic Caverns, Arkansas	2005	\$5,000
Iowa College Foundation	R.J. McElroy Student/Faculty Research Program: Dominican Republic Coral Research	2003	\$1,700
Iowa College Foundation	R.J. McElroy Student/Faculty Research Program: Midwestern Speleothem Research	2002	\$1,745
Iowa Science Foundation	Reconstructing Shifts in Prairie and Deciduous Forest across the Central Midwest using Speleothems	2002	\$4,000
Geol. Society America; Cave Research Found.; Sigma Xi; Nat. Speleological Soc.; Nevada Bur. Land Mgt.; University of Iowa	Various Grants in Support of Dissertation Research	1995-2000	\$25,000

Internal Grants

Cornell College	Faculty Development and Student Faculty Research Grants: Travel and Research on Northern Australia Speleothems	2011	\$6,500
Cornell College	Faculty Development Grants: Faculty Research on Northern Australia Speleothems	2010	\$4,100
Cornell College	Faculty Development Grants: Faculty Research on Great Basin Speleothems	2009	\$2,500
Cornell College	Campbell R. McConnell Sabbatical Fellowship	2006	\$15,000
Cornell College	Faculty Development Grants: Student/Faculty Research in Portugal	2006	\$4,500
Cornell College	Faculty Development Grants: Student/Faculty Research at the University of New Mexico	2005	\$5,500
Cornell College	Faculty Development Grant: Student/Faculty Research at the University of Iowa and the Dominican Republic	2003	\$3,500
Cornell College	Faculty Development Grant: Student/Faculty Research at the University of New Mexico	2002	\$3,500

Professional Affiliations/Memberships

Union of Concerned Scientists	American Geophysical Union
Geological Society of America	National Speleological Society
American Quaternary Association	Nepal Geological Society
Iowa Academy of Science	National Association Geoscience Teachers
Center for Global & Regional Environmental Research	Geological Society of Iowa

Synergistic Activities

Reviewer for the Following Journals

Geology	Palaeogeography, Palaeoclimatology, Palaeoecology
Journal of Geophysical Research	Quaternary Research
Chemical Geology	Quaternary Science Reviews
Geophysical Research Letters	Geosphere
Journal of Geoarcheology	Journal of Cave and Karst Studies
Journal of Iowa Academy of Science	Marine Geology

Stewardship of Geological Societies

Member, Iowa Science Foundation Committee, Iowa Academy of Science, 2010-2011

Chair, Geology Section, Iowa Academy of Science, 2003-2004

Vice-Chair, Geology Section, Iowa Academy of Science, 2002-2003

Committee on Preserves, Iowa Academy of Science, 2001-2002

Board of Directors, Geological Society of Iowa, 2001-present

Cornell College Administrative Duties

Member, Sustainability Committee, 2010-present

NCA Decadal Review Coordinator for Geology Department, 2009-present

Convener, Science Interest Group, 2009-2010

Convener and Moderator, Panel, *Climate Change and Possible Solutions*, Homecoming 2008

Outside Member of Review, Tenure, and Promotion Committee for Craig Teague, 2008

Outside Member of Review, Tenure, and Promotion Committee for Brian Nowak-Thompson, 2010

Member, Politics/Economics and Business Departments Public Policy Faculty Search Committee (2008) - no hire made

Member, Biology Department Faculty Search Committee, 2009 – Lenny Gannes hired

Member (substitute), Parking Regulations Review Committee, 2009

Member, Committee on Faculty Development, 2007-2009

Member, Committee on Writing, 2005-2008

Science Preview Day Panelist/Presenter – 2005, 2007, 2008, 2009

Speaker, Science Interest Group Lectures, 2004, 2007, 2008, 2011

Chair, Geology Department Faculty Search Committee, 2004 - Emily Walsh hired

Member, Committee on Student Life, 2004-2005

Chair, Department of Geology, 2003-2006; 2009-present
Advisor, Cornell Ultimate Frisbee Club, 2003-present
Member, English Department Search Committee, 2002 - Shannon Reed hired
Advisor, Cornell Mountaineering Club, 2001-2003
Member, Committee on Academic Standing and Subcommittee on Academic Affairs, 2001-2003;
2010-2011
NCA Decadal Review Coordinator for Environmental Studies Program, 2001-2002; 2009-2010
Chair, Environmental Studies Program Committee, 2001-present
Advisor, Environmental Science Track of the Environmental Studies Program, 2001-2010

Activities/Outreach

Iowa Private College Day at Iowa State Capitol – represented Cornell with Bipul Timulsina (2010)
Career Exploration Day, Kirkwood Community College at Mount Vernon Middle School (2010)
Cedar Rapids Gazette cover article, “Stalagmites indicate climate trouble ahead, Cornell professor says”, December 14, 2009
Representative of Iowa for Union of Concerned Scientists in meetings with Congressional legislators to discuss impacts of climate change on Midwestern states, Washington, D.C., September, 2009.