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EDUCATION:

Ph.D. (1998) Department of Geosciences, The Pennsylvania State University, University Park, PA.
B.A. (1983) Department of Geology, University of Colorado, Boulder, CO.

PROFESSIONAL EXPERIENCE:

Director; Yale Climate and Energy Institute, New Haven, CT. (2012-present)
Professor; Yale University, New Haven, CT. (1/2010-present)
Associate Professor; Yale University, New Haven, CT. (7/2006-12/2009)
Assistant Professor; Yale University, New Haven, CT. (7/2002-7/2006)
Research Scientist III; NREL, Colorado State University, Fort Collins, CO. (8/2000-present)
Research Fellow; University of California, Santa Cruz, CA. (7/00-5/02)
Postdoctoral Research; University of California, Santa Cruz, CA. (9/98-6/00)

HONORS AND INITIATIVES:

Kavli Fellow

Council member of the Yale Institute of Biospheric Studies.

Co-designed/coordinated/composed the proposal for the Yale Climate & Energy Institute (YCEI), a multi-million dollar research institute that integrates the natural and social sciences, engineering, public health, law, and policymakers to pursue implementable solutions to future climate change and energy needs. The proposal required an interdisciplinary effort across the Yale campus. Primary proposal writers, coordinators and conceptual designers included David Bercovici (Department Chair) and Mark Pagani. Support derives from Yale University and external contributions. Directorship, research grants, and core programs were established in 2009.

SUPPORT AND AWARDS:

Funded

NSF P2C2: Collaborative Research: The Oligocene-Miocene Boundary: CO₂ Sensitivity and the Problem of Ice Sheet Hysteresis (2012-2015).
Italian Ministry of the Environment: Evaluating drought impacts on the Classic Maya Civilization (2011-2013).
YCEI Seed Grant: Addressing Uncertainties in Ancient Temperature Reconstructions: Cultivation and Analysis of Marine Crenarchaeota (2011-2013).
NSF P2C2: Collaborative Research: Integrating proxies and Earth System Models to elucidate water cycle dynamics: Did global warming cause an enhanced hydrological cycle in the Eocene? (2009-2011).
REU Supplement to NSF: Collaborative Research: Investigation of pCO₂ changes since the Pliocene based on alkenone carbon isotopes (2007-2009).
JOI - USSSP (Joint Oceanographic Institutions-United States Science Support Program) Distinguished Lecturer (2008-2009).
NSF MRI: Acquisition of Instrumentation for Organic Molecular Research (2007-2008).
NSF: Collaborative Research: Investigation of pCO₂ changes since the Pliocene based on alkenone carbon isotopes (2007-2009).
NSF: Collaborative Research: Dynamics of carbon release and sequestration: case studies of two early Eocene hyperthermals (2006-2009).
NSF SGER: Controls on Li/Ca uptake in planktic foraminifera determined by live culturing (2005).
USGS: Organic carbon distribution of recent Chesapeake Bay sediments (2004-2006).

ACS-PRF: Global contribution of C₄ plants to terrestrial photosynthesis during the Cenozoic (2003-2006).
NSF MGG: Collaborative Research: Reconstruction of Paleogene alkenone-based ϵ_p records (2001-2005).
NSF Postdoctoral Research Fellowship (1998-2000).
JOI/USSAC Ocean Drilling (Schlanger) Fellowship (1995-1996).
Earth Systems Science Center Fellowship, The Pennsylvania State University (1995).

PROFESSIONAL AFFILIATIONS:

American Geophysical Union, Geological Society of America, Geochemical Society

PROFESSIONAL SERVICE:

Co-organized 5-day conference in Urbino, Italy: “*New Perspectives on Past Climate Change and Societal Disruption*”. Convened leaders in paleoclimatology, archaeology, and history for an interdisciplinary discussion of new research on climate impacts on ancient societies (2014).
Guest member of the *Annual Review of Earth and Planetary Sciences* Editorial Committee (2014).
Scientific Steering Committee for the IARU Sustainability Science Congress (2014).
Alfred E. Treibs Award Committee; Organic Geochemical Division of the Geochemical Society (2012-2015).
UK-US Arctic Workshop, Cambridge, UK (2012).
Designed and chaired the 2nd Yale Climate & Energy Institute annual conference (2011).
NSF-sponsored SEES Workshop on *Natural and Engineered Carbon Sequestration*, Minneapolis, MN (2011): Invited Speaker
Associate Editor: American Journal of Science (2006-Present).
Associate Editor: *Geochemistry Geophysics Geosystems* (2008-2009).
NRC sponsored *Workshop of the Committee on the Importance of Deep Time Geologic Records for Understanding Climate Change Impacts* (2008).
NSF sponsored Paleoenvironmental Proxies Workshop (2005).
NSF Panel Review, Marine Geology and Geophysics (2004).

COMMUNITY/OUTREACH:

Participant in the EVOLUTIONS program (*EVoking Learning & Understanding Through Investigations Of the Natural Sciences*) and GEODES: *Gearing educational opportunities toward diversity in the Earth Sciences* an after-school program for middle and high school students in the New Haven (CT) Public School system. The program promotes science literacy, STEM career awareness, college preparation, transferable skills development, and hands-on geoscience research through internships with Yale Earth science faculty.
Climate change lecturer: 5th grade students in the *Learning Enrichment Activities Program* from the Orange, CT School District.

CHAired SESSIONS:

Session Chair: Pagani, M., Schefuss, E. (2014) Organic geochemical records of terrestrial ecosystem change throughout Earth history, Goldschmidt, Sacramento, CA.
Session Chair: Pagani, M., Fenero, R., Perez-Cruz, L. (2013) Late Mesozoic–Early Cenozoic Biostratigraphy and Paleoclimates. AGU Meeting of the Americas, Cancun, MX.
Session Chair: Zhang, C., Pagani, M., Pancost, R., Peterse, F. (2012) The Fidelity of Lipids-Derived Temperature Proxies: Ecological, Physiological, or Genetic Effects, and Multiproxy Approaches, AGU Fall meeting, San Francisco, CA.
Session Chair: Lunt, D.J., Pagani, M., Pancost, R.D., Foster, G.L. (2011) The Pre-Quaternary Concentration Of Atmospheric CO₂: Proxies And Mechanisms For Change II, AGU Fall meeting, San Francisco, CA.
Session Chair: Royer, D.L., Pagani, M., Beerling, D.J. (2011) Earth system sensitivity to radiative forcings: Lessons from Earth history II, AGU Fall meeting, San Francisco, CA.
Session Chair: Pagani, M., and Montanez, I. (2009) Reconstructing Paleo-Atmospheric pCO₂ & Its Role in Long-Term, Extreme and Abrupt Global Climate Change Through Earth History, Goldschmidt

- Conference, Davos, Switzerland.
- Session Chair: Foster, G.L., Pagani, M., Galbraith, E., Jaccard, S., (2008) Past Changes in Atmospheric CO₂: Roles of the Biological Pump and the Ocean Carbonate System, AGU fall meeting, San Francisco, CA.
- Session Chair: Pagani, M. and Ridgwell, A., (2008) Global Climatic Transitions and Abrupt Events: Signatures and Mechanisms, Goldschmidt Conference, Vancouver, Canada.
- Session Chair: Pagani, M., Huang, Y., and Session, A., (2007) Organic Geochemical and Isotopic Approaches to the Study of Climatic and Environmental Change, AGU fall meeting, San Francisco, CA.
- Session Chair: Pagani, M., and Johnson, B., (2007) Modern calibrations and terrestrial applications of stable isotope paleo-proxies, American Chemical Society meeting, Boston, MA.
- Session Chair: Gröcke, D., Pagani, M., Wagner, T. and Meyers, P. A., (2006) Greenhouse/Icehouse Climates: Organic Proxies and Mechanisms Leading to Organic-Rich Marine Sediments I, AGU fall meeting.
- Session Chair: Mahler, B., and Pagani, M., (2004) Geochemical Society, Geochemistry II: Organic Geochemistry, GSA fall meeting.
- Session Chair: Hall, J. M., Rowley, D., and Pagani, M., (2004) Unraveling the history of ocean crust production: Evidence for and against changes in seafloor spreading rates since the Mesozoic, GSA fall meeting.
- Session Chair: Pagani, M., Beerling, D., Dickens, G. (2002) Phanerozoic history of greenhouse gases, Goldschmidt Conference, Davos, Switzerland.
- Session Chair: Martin, E., and Pagani, M., (2000) The oceans and records of long-term climate change, AGU fall meeting, San Francisco, CA.

PUBLICATIONS:

2015

- Inglis, G.N., Farnsworth, A., Lunt, D., Foster, G.L., Hollis, C.J., Pagani, M., Jardine, P.E., Pearson, P.N., Markwick, P., Galsworthy, A.M.J., Raynham, L., Taylor, K.W.R., Pancost, R.D. (2015) Descent toward the Icehouse: Eocene sea surface cooling inferred from GDGT distributions, *Paleoceanography*, 10.1002/2014PA002723.
- Douglas, P.M.J., Pagani, M., Canuto, M.A., Brenner, M., Hodell, D.A., Eglinton, T.I., Curtis, J.H. (2015) Drought, agricultural adaptation, and sociopolitical collapse in the Maya Lowlands, *Proceedings of the National Academy of Sciences*, 112, 5607–5612.
- Krishnan, S., Pagani, M., Agnini, C. (2015) Leaf waxes as recorders of paleoclimatic changes during the Paleocene– Eocene Thermal Maximum: Regional expressions from the Belluno Basin, *Organic Geochemistry*, 80, 8–17
- Zhuang, G., Pagani, M., Chamberlin, C., Strong, D., Vandergoes, M. (2015) Altitudinal shift in stable hydrogen isotopes and microbial tetraether distribution in soils from the Southern Alps, NZ: Implications for paleoclimatology and paleoaltimetry, *Organic Geochemistry*, 79, 56–64.

2014

- Douglas, P.M.J., Pagani, M., Eglinton, T.I., Brenner, M., Hodell, D.A., Curtis, J.H., Ma, K.F., Breckenridge, A. (2014) Pre-aged plant waxes in tropical lake sediments and their influence on the chronology of molecular paleoclimate proxy records, *Geochimica et Cosmochimica Acta*, 14, 346–364.
- Boscolo Galazzo, F., Thomas, E., Pagani, M., Warren, C., Luciani, V., and Giusberti, L. (2014) The middle Eocene climatic optimum (MECO): A multiproxy record of paleoceanographic changes in the southeast Atlantic (ODP Site 1263, Walvis Ridge), *Paleoceanography*, 10.1002/2014PA002670.
- Krishnan, S., Pagani, M., Huber, M., Sluijs, A. (2014) High latitude hydrological changes during the Eocene Thermal Maximum 2, *Earth and Planetary Sciences Letters*, 404, 167-177.

- Douglas, P.M.J., Affek, H.P., Ivany, L.C., Houben, A.J.P., Sijp, W.P., Sluijs, A., Schouten, S., Pagani, M., (2014) Pronounced zonal heterogeneity in Eocene southern high-latitude sea surface temperatures, *Proceedings of the National Academy of Sciences*, doi/10.1073/pnas.1321441111.
- Zhang, Y.G., Pagani, M., Liu, Z. (2014) A 12-million-year temperature history of the tropical Pacific Ocean, *Science*, 344, 84-87.
- Zhuang, G., Brandon, M., Pagani, M., Krishnan, S. (2014) Leaf wax stable isotopes from Northern Tibetan Plateau: implications for uplift and climate since 15 Ma, *Earth and Planetary Science Letters*, 390, 186–198.
- Pagani, M., Huber, M., Sageman, B. (2014) Greenhouse Climates, In *Treatise on Geochemistry* (Second Edition), edited by H.D. Holland and K.K. Turekian, Elsevier, Oxford, Pages 281-304, doi.org/10.1016/B978-0-08-095975-7.01314-0.
- Pagani, M. (2014) Biomarker-Based Inferences of Past Climate: The Alkenone pCO₂ Proxy, In *Treatise on Geochemistry* (Second Edition), edited by Heinrich D. Holland and Karl K. Turekian, Elsevier, Oxford, Pages 361-378, doi.org/10.1016/B978-0-08-095975-7.01027-5.

2013

- Dirghangi, S.S., and Pagani, M. (2013) Hydrogen isotope fractionation during lipid biosynthesis by *Tetrahymena thermophile*, *Organic Geochemistry*, 105–111.
- Dirghangi, S.S., Pagani, M., Hren, M.T., Tipple, B.J. (2013) Distribution of glycerol dialkyl glycerol tetraethers in soils from two environmental transects in the USA, *Organic Geochemistry*, 59, 49–60.
- Dirghangi, S.S., Pagani, M. (2013) Hydrogen isotope fractionation during lipid biosynthesis by *Haloarcula marismortui*, *Geochimica et Cosmochimica Acta*, 119, 381–390.
- Schouten, S. et al. (2013), An interlaboratory study of TEX₈₆ and BIT analysis of sediments, extracts, and standard mixtures, *Geochemistry, Geophysics, Geosystems*, 14, doi:10.1002/2013GC004904.
- Zhang Y.G., Pagani M, Liu Z, Bohaty S.M., DeConto R. (2013) A 40-million-year history of atmospheric CO₂, *Philosophical Transactions of the Royal Society A*, 371, 20130096.
- Wolfe, A.P., Hobbs, W.O., Birks, H.H., Briner, J.P., Holmgren, S.U., Ingólfsson, Ó., Kaushal, S.S., Miller, G.H., Pagani, M., Saros, J.E., Vinebrooke, R.D. (2013) Stratigraphic expressions of the Holocene–Anthropocene transition revealed in sediments from remote lakes, *Earth-Science Reviews*, 116, 17–34.
- Tipple, B.J. and Pagani, M. (2013) Environmental control on eastern broadleaf forest species' leaf wax distributions and D/H ratios, *Geochimica et Cosmochimica Acta*, 111, 64–77.

2012

- Rohling, E.J., Sluijs, A., Dijkstra, H.A., Köhler, P., van de Wal, R.S.W., von der Heydt, A.S., Beerling, D.J., Berger, A., Bijl, P.K., Crucifix, M., DeConto, R., Drijfhout, S.S., Fedorov, A., Foster, G.L., Ganopolski, A., Hansen, J., Hönlisch, B., Hooghiemstra, H., Huber, M., Huybers, P., Knutti, R., Lea, D.W., Lourens, L.J., Lunt, D., Masson-Demotte, V., Medina-Elizalde, M., Otto-Bliesner, B., Pagani, M., Pälike, H., Renssen, H., Royer, D.L., Siddall, M., Valdes, P., Zachos, J.C. and Zeebe, R.E. (2012) Making sense of palaeoclimate sensitivity, *Nature*, 491, 683-691.
- Douglas, P.M.J., Pagani, M., Brenner, M., Hodell, D.A., Curtis, J.H (2012) Aridity and vegetation composition are important determinants of leaf-wax δD values in southeastern Mexico and Central America, *Geochimica et Cosmochimica Acta*, 97, 24–45.
- Royer, D.L., Pagani, M., Beerling, D.J. (2012) Geobiological constraints on Earth system sensitivity to CO₂ during the Cretaceous and Cenozoic, *Geobiology*, 10, 298–310.
- DeConto, R.M., Galeotti, S., Pagani, M., Tracy, D., Schaefer, K., Zhang, T., Pollard, D., Beerling, D.J. (2012) Past extreme warming events linked to massive carbon release from thawing permafrost, *Nature*, 484, 87–91.
- McKay, R., Naish, T., Carter, L., Riesselman, C., Dunbar, R., Sjunneskog, C., Winter, D., Sangiorgi, F., Warren, C., Pagani, M., Schouten, S., Willmott, V., Levy, R., DeConto, R., Powell, R.D. (2012) Antarctic and Southern Ocean influences on Late Pliocene global cooling, *Proceedings of the National Academy of Sciences*, 109, 6423–6428.
- Beerling, D.J., Taylor, L.L., Bradshaw, C.D.C., Lunt, D.J., Valdes, P.J., Banwart, S.A., Pagani, M., Leake, J.R. (2012) Ecosystem CO₂ starvation and terrestrial silicate weathering: mechanisms and global-scale

quantification during the late Miocene, *Journal of Ecology*, 100, 31–41.

2011

- Pagani, M., Huber, M., Liu, Z., Bohaty, S.M., Henderiks, J., Sijp, W., Krishnan, S., DeConto, R.M. (2011) The role of carbon dioxide during the onset of Antarctic glaciation, *Science*, 334, 1261-1264.
- Tipple, B.J., Pagani, M., Krishnan, S., Dirghangi, S.S., Agnini, C., Galeotti, S., Giusberti, L., Rio, D., (2011) Coupled high-resolution marine and terrestrial records of carbon and hydrologic cycles variations during the Paleocene-Eocene Thermal Maximum (PETM), *Earth and Planetary Science Letters*, doi:10.1016/j.epsl.2011.08.045
- Yang, H., Liu, W., Leng, Q., Hren, M.T., Pagani, M. (2011) Variation of n-alkane δD values from terrestrial plants at high latitudes: Implications for paleoclimate reconstruction, *Organic Geochemistry*, 42, 283–288.

2010

- Jaramillo, C., Ochoa, D., Contreras, L., Pagani, M., Carvajal-Ortiz, H., Pratt, L.M., Krishnan, S. et al. (2010) Effects of rapid global warming at the Paleocene-Eocene Boundary on neotropical vegetation, *Science*, 330, 957-962.
- Tipple, B.J., Pagani, M. (2010) A 35 Myr terrestrial higher plant n-alkane stable carbon and hydrogen isotope record from the Gulf of Mexico: implications for North American C₄ grasslands and hydrologic cycle dynamics, *Earth and Planetary Science Letters*, 299 (2010) 250–262.
- Tipple, B.J., Meyers, S.R., Pagani, M. (2010) The carbon isotope ratio of Cenozoic CO₂: a comparative evaluation of available geochemical proxies, *Paleoceanography*, doi:10.1029/2009PA001851.
- Hren, M. T., Pagani, M., Erwin, D. M., Brandon, M. (2010) Early Eocene paleoelevation and paleoclimate of the Sierra Nevada, *Geology*, 38, 7-10.
- Galeotti, S., Krishnan, S., Pagani, M., Lanci, L., Gaudio, A., Zachos J. C., Monechi, S., Morelli, G., Lourens, L. (2010) Orbital chronology of Early Eocene hyperthermals from the Contessa Road section, central Italy, *Earth and Planetary Science Letters*, 290, 192-200.
- Pagani, M., Liu, Z., LaRiviera, J., Ravelo, A.C. (2010) High climate sensitivity to atmospheric carbon dioxide for the past 5 million years, *Nature Geoscience*, 3, 27-30.

2009

- Pagani, M., Caldeira, K., Berner, R., Beerling, D. (2009) The role of terrestrial plants in limiting CO₂ decline for 24 million years, *Nature*, 460, 85-88.
- Yang, H., Pagani, M., Briggs, D. E. G., Equiza, M.A., Jagels, R., Leng, Q., LePage, B. A. (2009) Carbon and hydrogen isotope fractionation under continuous light: implications for paleoenvironmental interpretations of the High Arctic during Paleogene warming, *Oecologia*, DOI 10.1007/s00442-009-1321-1.
- Liu, Z., Pagani, M., Zinniker, D., DeConto, R., Huber, M., Brinkhuis, H., Shah, S., Leckie, M., and Pearson, A. (2009) Global cooling during the Eocene-Oligocene climate transition, *Science*, 323, 1187-1190.

2008

- Hansen, J., Sato, M., Kharecha, P., Beerling, D., Berner, R., Masson-Delmotte, V., Pagani, M., Raymo, M., Royer, D., Zachos, J.C. (2008) Target atmospheric CO₂: Where should humanity aim? *The Open Atmospheric Science Journal*, 2, 217-231.
- DeConto, R. M., Pollard, D., Wilson, P.A., Pälike, H., Lear, C. H., Pagani, M. (2008) Thresholds for Cenozoic bipolar glaciation, *Nature*, 455, 652-656.
- Meyers, S. R., Sageman B. B., and Pagani, M. (2008) Resolving Milankovitch: consideration of signal and noise, *American Journal of Science*, 308, 770–786, DOI 10.2475/06.2008.02.
- Enders, S. K., Pagani, M., Pantoja, S., Baron, J. S., Wolfe, A. P., Pedentchouk, N., Nunez, L. (2008) Compound-specific stable isotopes of organic compounds from lake sediments track recent environmental changes in an alpine ecosystem, Rocky Mountain National Park, Colorado (United States of America), *Limnology and Oceanography*, 53, 1468-1478.
- Henderiks, J. and Pagani, M. (2008) Coccolithophore cell size and the Paleogene decline in atmospheric CO₂, *Earth and Planetary Science Letters*, 269, 575-583.
- Pedentchouk, N., Sumner, W., Tipple, B., Pagani, M. (2008) $\delta^{13}C$ and δD composition of n-alkanes from 3 modern angiosperms and conifers: An experimental 4 set up in central Washington State, USA, *Organic Geochemistry*, 39, 1066–1071.

2007

- Henderiks, J. and Pagani, M. (2007) Refining ancient carbon dioxide estimates: Significance of coccolithophore cell size for alkenone-based pCO₂ records, *Paleoceanography*, 22,

doi:10.1029/2006PA001399.

Tippie, B. J. and Pagani, M. (2007) The early origins of terrestrial C₄ photosynthesis, *Annual Reviews of Earth and Planetary Sciences*, 35, 435-461.

2006

Pagani, M., Caldeira, K., Archer, D., and Zachos, J.C. (2006) An ancient carbon mystery, *Science*, 314, 1556-1557.

Pagani, M., Pedentchouk, N., Huber, M., Sluijs, A., Schouten, S., Brinkhuis, H., Sinninghe Damsté, J. S., Dickens, G.R., and the IODP Expedition 302 Scientists (2006) Arctic hydrology during global warming at the Palaeocene-Eocene thermal maximum, *Nature*, 442, 671-675.

Sluijs, A., Schouten, S., Pagani, M., Woltering, M., Pedentchouk, N., Brinkhuis, H., Sinninghe Damsté, J.S., Dickens, G.R., Huber, M., Reichart, G. J., Stein, R., Matthiessen, J., Lourens, L.J., Backman, J., Moran, K., and the Expedition 302 Scientists (2006) Subtropical Arctic Ocean temperatures during the Palaeocene-Eocene thermal maximum, *Nature*, 441, 610-613.

Meyers, S. R. and Pagani, M. (2006) Quasi-periodic climate teleconnections between northern and southern Europe during the 17th-20th centuries, *Global and Planetary Change*, 54, 291-301.

Pancost, R. D. and Pagani, M. (2006) Controls on the Carbon Isotopic Compositions of Lipids in Marine Environments, In: *The Handbook of Environmental Chemistry, Volume 2 Series: Marine Organic Matter: Biomarkers, Isotopes and DNA* (J. Volkman, ed.), Springer, Germany, pp 209-249 (invited submission).

2005 AND EARLIER

Buck, D.G., Brenner, M., Hodell, D.A., Curtis, J.H., Martin, J.B., and Pagani, M. (2005) Physical and chemical properties of hypersaline Lago Enriquillo, Dominican Republic. *Verh. Internat. Verein. Limnol.* 29, 725-731.

Pagani, M., Zachos, J., Freeman, K. H., Bohaty, S., and Tippie, B. (2005) Marked decline in atmospheric carbon dioxide concentrations during the Paleogene, *Science*, 309, 600-603.

Freeman, K.H., and Pagani, M. (2005) Alkenone-based estimates of past CO₂ levels: a consideration of their utility based on an analysis of uncertainties, in *A History of Atmospheric CO₂ and its Effects on Plants, Animals, and Ecosystems*, J. R. Ehleringer, T. E. Cerling, and M. D. Dearing (Eds), Ecological Studies, 177, Springer, New York, p.530.

Pagani, M., Lemarchand, D., Spivack, A., and Gaillardet, J. (2005) A critical evaluation of the boron isotope-pH proxy: The accuracy of ancient ocean pH estimates, *Geochimica et Cosmochimica Acta*, 69, 953-961.

Pagani, M., Freeman, K.H., Ohkouchi, K., and Caldeira, K. (2002) Comparison of water column [CO_{2aq}] with sedimentary alkenone-based estimates: a test of the alkenone-CO₂ proxy, *Paleoceanography*, 17, 1069, doi:10.1029/2002PA000756.

Ennyu, A., Arthur, M.A., Pagani, M. (2002) Fine-fraction carbonate stable isotopes as indicators of seasonal shallow mixed-layer paleohydrography *Marine Micropaleontology*, 46, 317-342.

Pagani, M., The alkenone-CO₂ proxy and ancient atmospheric CO₂ (2002) In *Understanding Climate Change: Proxies, Chronology, and Ocean-Atmosphere Interactions*, Eds. D.R. Gröcke and M. Kucera, *Philosophical Transactions of the Royal Society of London Series A*, 360, pp. 575-802.

Zachos J., Pagani, M., Sloan, L., Thomas, and E., Billups, K. (2001) Trends, rhythms, and aberrations in global climate: 65 Ma to present, *Science*, 292, 686-693.

Prahl, F., Herbert, T., Brassell, S.C., Ohkouchi, N., Pagani, M., Repeta D., Rosell-Melé, A., and Sikes, E. (2000) Status of alkenone paleothermometer calibration: Report from Working Group 3, *Geochemistry, Geophysics, Geosystems*, 1.

Pagani, M., Arthur, M.A., and Freeman, K.H. (2000) Variations in Miocene phytoplankton growth rates in the southwest Atlantic: Evidence for Changes in Ocean Circulation, *Paleoceanography*, 15, 486-496.

Pagani, M., Freeman, K.H., and Arthur, M.A., (2000), Isotope analyses of molecular and total organic carbon from Miocene sediments, *Geochimica et Cosmochimica Acta*, 64, 37-49.

Pagani, M., Freeman, K.H., and Arthur, M.A. (1999) Late Miocene atmospheric CO₂ concentrations and the expansion of C₄ grasses, *Science*, 285, 876-879.

Pagani, M., Arthur, M.A., and Freeman, K.H. (1999) Miocene evolution of atmospheric carbon dioxide, *Paleoceanography*, 14, 273-292.

Pagani, M. and Arthur, M.A., (1998) Stable isotopic studies of Cenomanian-Turonian proximal marine fauna from the U.S. Western Interior Seaway. In Dean, W.E., and Arthur, M.A. (Eds), *Stratigraphy and Paleoenvironments of the Western Interior Seaway*, SEPM Concepts in Sedimentology and Paleontology No. 6.

INVITED TALKS

2015

Boston University, Department of Biology, Boston, MA.
University of Colorado, Department of Geological Sciences, Boulder, CO.

2014

Harvard University, Department of Earth and Planetary Sciences, Cambridge, MA
Brandeis University, Department of Biology, Newton, MA
Princeton Plasma Physics Laboratory, Princeton, NJ.
Rice University, Department of Earth Sciences, Houston, TX.

2013

Pagani, M., Zhang, Y.G. (2013) Evolution of El Niño: new perspectives from biomarker temperature proxies. AGU Fall Meeting, San Francisco, CA.
Pagani, M. (2013) Climate Science Convocation and Symposium. University of Massachusetts, Amherst, MA.
University of Southern California, Department of Earth Sciences, Los Angeles, CA.
University of York, York Environmental Sustainability Institute: “Global Change and Biosphere Interactions”, York, England.
Pagani, M. (2013) Re-evaluating alkenone based CO₂ estimates. AGU Meeting of the Americas, Cancun, MX.

2012

Aspen Global Climate Change Institute, Climate Sensitivity on Decadal and Century Timescales: Implications for Civilizations, Aspen, CO (2012).
German-American Frontiers of Science Symposium, A. von Humboldt Association and National Academy of Sciences, Potsdam, Germany (2012).
University of Montana, Department of Earth Sciences, Bozeman, MT (2012).

2011

The Center for Global Change Science: Distinguished Lecture Series, University of Toronto, Toronto, ON (2011).
Kavli Royal Society International Centre, Reconstructing and understanding CO₂ variability in the past (2011).
Pagani, M., The Royal Society: Warm climates of the past – a lesson for the future? London, UK (2011)
Pagani, M., DeConto, R., Galeotti, S., Beerling, D.J., *Keynote: Methane and the PETM: All Good Things Must Come to An End?* EGU, Prague, Czech Republic (2011).
University of California, The Ocean Sciences Department, Santa Cruz, CA (2011).
Pagani, M., Liu, Z., Bohaty, S., DeConto, R., Huber, M., Henderiks, J., The Role of Carbon Dioxide during the Onset of Antarctic Glaciation, EGU, Vienna, Austria (2011).
Massachusetts Institute of Technology, Program in Atmospheres, Oceans and Climate, Cambridge, MA (2011).
University of South Florida, College of Marine Sciences, St. Petersburg, FL, Evanston, IL (2011).

2010

Northwestern University Climate Change Symposium, Evanston, IL (2010).
University of South Carolina, Department of Earth and Ocean Sciences, Columbia, SC (2010).
Pagani, M., Estimates of climate sensitivity from the geologic record, Climate Change Symposium, Northwestern University, Evanston, IL (2010).
Harvard University, Department of Earth and Planetary Sciences, Cambridge, MA (2010).
Cornell University, Department of Earth and Atmospheric Sciences, Ithaca, NY (2010).
Pagani, M., *Plants save the world from itself*, Royal Society Seminar on Atmospheric CO₂ and green evolution, England (2010).
Pagani, M., *Creating a Cenozoic record of atmospheric CO₂*, Workshop on Palaeo-CO₂, Bristol, England (2010).
Pagani, M. (Keynote) *Estimates of Earth system climate sensitivity*, Goldschmidt Meeting, Knoxville, TN (2010).

2009

JOI-USSAC presentation: Florida A&M University, Tallahassee, FL (2009).

Pagani, M., Liu, Z., Bohaty, S., DeConto, R., Huber, M., Hendriks, J., The Role of Carbon Dioxide during the Onset of Antarctic Glaciation, Antarctic Climate Evolution meeting, Granada, Spain (2009).
Bigelow Laboratory of Ocean Science, West Boothbay Harbor, ME (2009).
Princeton University, Department of Geosciences, Princeton, NJ (2009).
JOI-USSAC presentation: Maryland Science Center, Baltimore, MD (2009).
Bryant University, Smithfield, RI (2009).
Rutgers University, Department of Earth and Planetary Sciences, New Brunswick, NJ (2009).
JOI-USSAC presentation: Muskingum College, Geology Department, New Concord, OH (2009).
JOI-USSAC presentation: The University of Montana Western, Geology Department, Dillon, MT (2009).
JOI-USSAC presentation: Western Michigan University, Geology Department, Kalamazoo, MI (2009).
JOI-USSAC presentation: Syracuse University, Geology Department, Syracuse, NY (2009).
University of Chicago, Department of the Geophysical Sciences, Chicago, IL (2009).
Northwestern University, Department of Earth and Planetary Sciences, Evanston, IL (2009).
Kansas University, Department of Geology, Lawrence, KS (2009).
University of Minnesota, Department of Geology and Geophysics, St. Paul, MN (2009).
JOI-USSAC presentation: Lawrence University, Geology Department Appleton, WI (2009).

2008

Padova University, Department of Geosciences, Italy (2008).
JOI-USSAC presentation: Dickenson College, Geology Department, Carlisle, PA (2008).
Pagani, M., Equable Climate meeting, Harvard University, Center for the Environment and Professor of Earth and Planetary Sciences, Cambridge, MA (2008).
Housatonic Community College (2008).
Wesleyan University, Department Earth and Environmental Sciences, Middletown, CT (2008).
University of Wyoming, Department of Geology and Geophysics, Laramie, WY (2008).
AAAS meeting, Boston, Ma (2008) *A Cenozoic history of atmospheric carbon dioxide, estimates of climate sensitivity*.

2007

Pagani, M., *A Cenozoic history of atmospheric carbon dioxide*, AGU fall meeting, San Francisco, CA (2007).
Stony brook University, Geosciences Department, Stony brook, NY (2007).
NCAR PETM Data-model integration workshop, Santa Fe, NM (2007).
University of Arizona, Department of Geosciences, Tucson, AZ (2007).
Rochester University, Department of Earth and Environmental Sciences, Rochester, NY (2007).
Oxford University, Department of Earth Sciences, Oxford, England (2007).
Pagani, M., *A Cenozoic history of atmospheric carbon dioxide*, Workshop “Evolution of Asian monsoon and desertification and growth of the Tibetan Plateau”, Sanya, Hainan (2007).

2006

University of Massachusetts, Department of Geosciences, Amherst, MA (2006).
Florida State University, Department of Geological Sciences, Tallahassee, FL (2006).
Pagani, M., *A Cenozoic history of atmospheric carbon dioxide*, Workshop on “Ocean Acidification - modern observations and past experiences”, Lamont-Doherty Earth Observatory of Columbia University, September (2006)
Boston University, Department of Earth Sciences, Boston, MA (2006)
Utrecht University, Geological Students Society of Utrecht, Department of Earth Sciences, Utrecht, The Netherlands (2006).
The Pennsylvania State University, Department of Geosciences, University Park, PA (2006).
Stanford University, School of Earth Science, Stanford, CA (2006).
University of California, Earth Sciences, Santa Cruz, CA (2006).

2005

Pagani, M., Pedentchouk, N., Huber, M., Sluijs, A., Schouten, S., Brinkhuis, H., Sinninghe Damsté, J.S., Dickens, G., R., *Arctic's hydrology during global warming at the Palaeocene-Eocene thermal maximum*, AGU fall meeting, San Francisco, CA (2005).
Massachusetts Institute of Technology, Department of Earth, Atmospheric and Planetary Sciences, Cambridge, MA (2005).
Pagani, M., Pedentchouk, N., Huber, M., Sluijs, A., Schouten, S., Brinkhuis, H., Sinninghe Damsté, J.S., Dickens, G., R., *Atmosphere-ocean CO₂ disequilibrium and the hydrologic response to climate change during the PETM: an Arctic perspective*, GSA fall meeting, Salt Lake City, UT (2005).

Pagani, M., *Controls on paleo-alkenone $\delta^{13}C$* , Goldschmidt Conference, Moscow, ID (2005).
Pagani, M., Tipple, B., *The influence of C_4 photosynthesis during the Miocene*, Goldschmidt Conference, Moscow, ID (2005).
Utrecht University, Department of Biology, Utrecht, The Netherlands (2005).
Pagani, M., Pedentchouk, N., *Hydrogen isotopic composition of n-alkanes from leaf waxes: An empirical evaluation of environmental controls*, 35th International Symposium on Archaeometry, Beijing, China (2005).
Institute of Earth Environment, Chinese Academy of Sciences, Xi'an, China (2005).
Polar Research Institute, National Ocean Bureau, Shanghai, China (2005).
Tongji University, The Nation's Open Laboratory for Marine Geology, Shanghai, China (2005).

2004

Purdue University, Department of Earth and Atmospheric Sciences, West Lafayette, IN (2004).
Pagani, M., Zachos, J., Freeman, K.H., *The evolution of atmospheric carbon dioxide since the middle Eocene: a biomarker approach*, AGU fall meeting, San Francisco, CA (2004).
Pagani, M., Zachos, J., Freeman, K.H., *Alkenone $\delta^{13}C$ trends since the middle Eocene: implications for secular changes in atmospheric CO_2* , International Conference on Paleoceanography VIII, Biarritz, France (2004).
Pagani, M., Hall, J., *The use of alkenone $\delta^{13}C$ as a paleo-growth rate proxy*, Ocean Sciences meeting of the American Geological Union, Portland OR (2004).
University of New Mexico, Department of Earth and Planetary Sciences, Albuquerque, NW (2004).
Woods Hole Oceanographic Institute, Geology and Geophysics, MA (2004).

2003

Pagani, M., *Carbon cycling, CO_2 and climates of the past: proxies and paleoreconstruction*, Earth Sciences into the 3rd. Millenium: Methods, Materials, Mechanisms, Bochum, Germany (2003).
University of Iowa, Department of Geology, Iowa City, IA (2003).
University of Massachusetts, Dartmouth, School for Marine Science and Technology (2003).
Pagani, M., *Workshop: The role of ocean gateways for Plio-Pleistocene climate and the onset of major Northern Hemisphere Glaciations*, Columbia University, Lamont-Doherty Earth Observatory (2003).

2002 AND EARLIER

Pagani, M., Popp, B.N., and Prahl, F., *A comparison of water column [CO_{2aq}] with sedimentary alkenone-based estimates*, 6th Annual GES meeting, Hawaii (2002).
Pagani, M., *An examination of the boron-pH proxy*, Gordon Conference for Chemical Oceanography, New Hampshire (2001).
Pagani, M., *Alkenone unsaturation and stable isotope composition: The sedimentary record and its implications in paleoceanography*, International Photosynthesis Congress, Tihany, Hungary (1998).

PRESENTATIONS/ABSTRACTS

2014

Liu, Z., He, Y., Wilson, P., Pagani, M. (2014) Orbitally resolved SST Changes during the EOT: Results from IODP 342 Expedition. *AGU Fall Meeting*, San Francisco, CA.
Boscolo Galazzo, F., Thomas, E., Pagani, M., Warren, C., Luciani, V., Giusberti, L., (2014) Temperature-Metabolism Linkage and the Effects on Marine Biota: Evidence Across the Middle Eocene Climatic Optimum in the South-East Atlantic. *AGU Fall Meeting*, San Francisco, CA, *poster*.
Krishnan, S., Huber, M., Pagani, M. (2014) Evaluating Changes in Paleo-temperature Gradients using Hydrogen Isotopic Compositions of Leaf-wax Biomarkers. *AGU Fall Meeting*, San Francisco, CA, *poster*.
Zhang, Y.G., Pagani, M., Ren, H., Henderiks, J. (2014) A long history of equatorial upwelling in the Pacific Ocean. *AGU Fall Meeting*, San Francisco, CA, *poster*.
Warren, C., Romero, I., Ellis, G., Goddard, E., Krishnan, S., Nigro, L., Super, J., Zhang, Y.G., Zhuang, G., Hollander, D., Pagani, M. (2014) Testing the Role of Microbial Ecology, Redox-Mediated Deep Water Production and Hypersalinity on TEX86: Lipids and 16s Sequences from Archaea and Bacteria in the Water Column and Sediments of Orca Basin. *AGU Fall Meeting*, San Francisco, CA, *poster*.
Super, J., Pagani, M. (2014) Middle Miocene-Pliocene Sea Surface Temperatures: The TEX86 Perspective. *AGU Fall Meeting*, San Francisco, CA, *poster*.

- Boscolo Galazzo, F., Thomas, E., Pagani, M., Warren, C., Giusberti, L., Luciani, V. (2014) Warming, pelagic food webs and deep-sea biota during the Middle Eocene Climatic Optimum in the SE Atlantic (ODP Site 1263). *Climatic and Biotic Events of the Paleogene*, Ferrara, Italy.
- Zhang, Y.G., Pagani, M. (2014) Ring index: towards quality controls for the TEX86 paleothermometry. GDGT 2014, Texel, Netherlands.
- Warren, C., Pagani, M., (2014) GDGTs in Aquaria: Assessing the role of phylogeny in model environments. GDGT 2014, Texel, Netherlands.

2013

- Zhuang, G., Brandon, M.T., Pagani, M. (2013) Leaf-wax stable isotopes from northern Tibet: implications for uplift and climate since 15 Ma. *AGU Fall Meeting*, San Francisco, CA.
- Zhang, Y.G., Pagani, M. (2013) The late Miocene “paradox” of CO₂ climate sensitivity. *AGU Fall Meeting*, San Francisco, CA, *poster*.
- Krishnan, S., Pagani, M. (2013) Using leaf-wax biomarkers to reconstruct the state of the hydrological cycle during the early Eocene. International Conference on Paleoceanography, Stiges, Spain, *poster*.
- Zhang, Y.G., Pagani, M. (2013) Evolution of the equatorial Pacific since late Miocene: Implications for El Niño. International Conference on Paleoceanography, Stiges, Spain, *poster*.
- Douglas, P.M., Pagani, M., Eglinton, T.I., Brenner, M., Hodell, D.A., Curtis, J.H. (2013) Drought Impacts on Ancient Maya Maize Agriculture Inferred from Isotopic Analyses of Plant Biomarkers. AGU Meeting of the Americas, Cancun, MX.

2012

- Douglas, P. M., Pagani, M., Eglinton, T. I., Brenner, M., Hodell, D. A., Curtis, J. H. (2012) Combined hydrogen and carbon isotopes of plant waxes as an indicator of drought impacts on ancient Maya agriculture. *AGU Fall Meeting*, San Francisco, CA.
- Krishnan, S., Pagani, M., Huber, M. (2012) *Hydrological cycle during the early Eocene: What can we learn from leaf waxes?* AGU fall meeting, San Francisco, CA.
- Zhuang, G., Brandon, M.T., Pagani, M., (2012) *A stratigraphic record from 16 Ma to Present of compound-specific hydrogen isotopes from northern Tibet: implications for paleoaltimetry and paleoclimate of the northern Tibetan Plateau*, AGU fall meeting, San Francisco, CA.
- Zhang, Y.G., Pagani, M. (2012) *Pacific warm pool and cold tongue evolution since late Miocene: Implications for El Niño*. AGU Fall Meeting, San Francisco, CA.
- Dirghangi, S.S., Pagani, M., Hren, M.T., Tipple, B.J. (2012) *Distribution of Glycerol Dialkyl Glycerol Tetraethers in Soils from Two Environmental Transects in the U.S.* AGU Fall Meeting, San Francisco, CA.
- Boscolo-Galazzo, F., Thomas, E., Giusberti, L., Pagani, M., Luciani, V. (2012) *The Middle Eocene Climatic Optimum: a multi-proxy record of paleoceanographic changes in the South Atlantic (ODP Site 1263)*. AGU fall meeting, San Francisco.
- Hren, H.T., Tipple, B.J., Pagani, M. (2012) *The impact of pCO₂ and climate on D/H and ¹³C/¹²C fractionation of higher-plant biomarkers: Implications for paleoclimate and paleoelevation reconstruction during global warm periods*. AGU fall meeting, San Francisco, CA.
- Bendle, J.A., Toney, J.L., Seki, O., Krishnan, S., Pagani, M., Inglis, G., Pancost, R.D., Bijl, P., Bohaty, S.M., Schouten, S., Pross, J., Contreras, L., Brinkhuis, H., Roehl, U., Jamieson, S., (2012) *Peatlands, methane cycling and hyperthermals on the East Antarctic continent in the early Eocene*. AGU fall meeting, San Francisco, CA.
- Zhang, Y.G., Pagani, M., Wang, Z. (2012) *Ring Index: Towards quality controls for the TEX₈₆ paleothermometry*. V.M. Goldschmidt Meeting, Montréal, Canada.
- Douglas, P. M., Pagani, M., Eglinton, T. I., Brenner, M., Curtis, J. H., Hodell, D. A. (2012) *Plant-wax radiocarbon ages in tropical lake sediments and their utility for inferring past climate change and soil carbon dynamics*. Gordon Research Conference in Organic Geochemistry, Holderness, NH.
- Toney, J. L., Bendle, J. A., Seki, O., Krishnan, S., Pagani, M., Inglis, G., Pancost, R., Bijl, P. K., Bohaty, S., Schouten, S., Pross, J., Brinkhuis, H., Roehl, U., Jamieson, S., and the IODP Expedition 318 Team, (2012) *Insights into peatland expansion and methane cycling on the East Antarctic continent in the early Eocene*, EGU, Vienna, Austria.

Naish, T., McKay, R., Carter, L., Riesselman, C., Sjunneskog, C., Winter, D., Dunbar, R., Sangiorgi, F., Warren, C., Pagani, M., Wilmott, V., Levy, R., Powell, R., DeConto, R., *Antarctic and Southern Ocean influences on Late Pliocene global cooling*, EGU, Vienna, Austria (2012).

Galeotti, S., DeConto, R.M., Lanci, L., Pagani, M., Rohl, U., Westerhold, T., Zachos, J. C., Early Eocene hyperthermals record orbitally controlled changes in high latitude climates, *Early Eocene hyperthermals record orbitally controlled changes in high latitude climates*, EGU, Vienna, Austria (2012).

2011

Krishnan, S., Huber, M., Pagani, M. (2011) *State of the hydrological cycle during the Eocene: Model-data comparison*, AGU fall meeting, San Francisco, CA.

Zhang, Y.G., Pagani, M. (2011) *Late Miocene–Pliocene Evolution of the Pacific Warm Pool and Cold Tongue: Implications for El Niño*, AGU fall meeting, San Francisco, CA.

Henderiks, J., Pagani, M., Bohaty, S.M. (2011) *Equator-to-Pole Gradients in Marine Phytoplankton Size across the Eocene-Oligocene Transition*, AGU fall meeting, San Francisco, CA.

Galeotti, S., DeConto, R., Florindo, F., Lanci, L., Naish, T., Pagani, M., Pollard, D., Talarico, F. (2011) *Direct evidence for Antarctic Ice-Sheet variability across the Eocene-Oligocene boundary climate transition*, AGU fall meeting, San Francisco, CA.

Douglas, P.M., Ivany, L., Pagani, M., Hollis, C.J., Beu, A.G., Affek, H.P. (2011) *Eocene southern high latitude sea surface temperatures: new constraints from clumped isotope paleothermometry*, AGU fall meeting, San Francisco, CA.

Royer, D.L., Park, J.J., Pagani, M., Beerling, D.J. (2011) *Geological constraints on Earth system sensitivity to CO₂ during glacial and non-glacial times* (invited), AGU fall meeting, San Francisco, CA.

2010

Dirghangi, S. S., Pagani, M. (2010) *Fractionation of hydrogen isotopes during lipid biosynthesis by *Tetrahymena thermophila**, Gordon Conference on Organic Geochemistry; Holderness, NH.

Douglas, P. Pagani, M., Eglinton, T., Brenner, M., Curtis, J., Hodell, D. (2010) *Differences between ages of lipids and sediment in tropical lake cores and implications for lipid stable isotope paleoenvironmental proxies*, Gordon Conference on Organic Geochemistry; Holderness, NH.

Hren, M.T., Pagani, M., Erwin, D.M. (2010) *Coupled Biomarker and Paleobotanical Reconstruction of Paleoelevation and Paleoclimate of the Miocene Basin and Range, Nevada*, Gordon Conference on Organic Geochemistry, Holderness, NH.

Zhang, Y-G., Pagani, M. (2010) *Warm and stable tropical sea surface temperatures during the Oligocene - Miocene Boundary*, Gordon Conference on Organic Geochemistry, Holderness, NH.

Krishnan, S., Pagani, M., Tipple, B., Agnini, C. (2010) *Compound specific terrestrial leaf wax records from the Cicogna section (Italy) during the PETM*, Goldschmidt Meeting, Knoxville, TN.

Pagani, M., Liu, Z., Bohaty, S., DeConto, R., Huber, M., Hendriks, J. (2010) *The Role of Carbon Dioxide during the Onset of Antarctic Glaciation*, EGU, Vienna, Austria.

Houben, A.J.P., Schouten, S., Bohaty, S.M., Wade, B.S., Pagani, M., Gallagher, S., Reichart, G-J., Quaijtaal, W., Sluijs, A., Brinkhuis, H. (2010) *The onset of major Antarctic glaciation and the Eocene - Oligocene transition - a story of ice, temperature and sea level*, EGU, Vienna, Austria.

2009

DeConto, R., Pagani, M., Pollard, D., Beerling, D. J. (2009) *Polar terrestrial ecosystems, permafrost, and extreme warm paleoclimate dynamics*, AGU fall meeting, San Francisco, CA.

Douglas, P. Pagani, M., Brenner, M., Curtis, J., H., Hodell, D. A. (2009) *Compound Specific δD Values Across a Tropical Precipitation Gradient: Implications for Low-latitude Paleoclimate Reconstructions*, AGU fall meeting, San Francisco, CA.

Tipple, B. J., Dirghangi, S. S., Krishnan S., Agnini, C., Galeotti, S, Rio, D, Pagani, M. (2009) *A terrestrial PETM record of variations in carbon and hydrologic cycles from Northern Italy*, AGU fall meeting, San Francisco, CA.

Dirghangi, S S, Hren, M T, Tipple, B J, Pagani, M. (2009) *Environmental controls on the distribution of branched GDGTs in soils: Implications for paleoenvironmental reconstruction*, AGU fall meeting, San Francisco, CA.

Yang, H., Pagani, M. (2009) *Plant hydrogen isotope fractionation at high latitudes: implications for Paleogene Arctic paleoclimate interpretations*, GSA fall meeting, Portland, OR.

Pagani, M., Tipple, B.J. (2009) *Arctic hydrology during the Paleocene-Eocene thermal maximum: recent updates and revelations*, Isocompound Conference, Potsdam, Germany.

Tipple, B.J., Pagani, M. (2009) *Leaf Waxes as a Recorder of the Hydrogen Isotope Ratios of Precipitation and Ground-Water: Field Data from the California Coastal and Sierra Nevada Ranges*, Isocompound Conference, Potsdam, Germany.

2008

- Dirghangi, S.S., Pagani, M. (2008) *Fractionation of Hydrogen Isotopes During Lipid-Biosynthesis By *Tetrahymena thermophila*, *Dunaliella bardawil* and *Haloarcula marismortui**, AGU fall meeting, San Francisco, CA.
- Hren, M.T., Pagani, M., Brandon, M., Erwin, D. M. (2008) *Reconstructions of Climatic and Topographic Gradients in the Sierra Nevada during the early Eocene using compound-specific stable isotopes and organic molecular temperature proxies*, AGU fall meeting, San Francisco, CA.
- Willard, D., Pagani, M., Meyers, S., Cronin, T., Wright, M. (2008) *Multi-proxy records of estuarine ecosystem response to Late Holocene climate variability, Chesapeake Bay, USA*, AGU fall meeting, San Francisco, CA.
- Henderiks, J., Rickaby, R.E., Hannisdal, B., Zondervan, I., Winter, A., Pagani, M. (2008) *The Scales of Coccolithophores: Adaptation to Climate Change*, AGU fall meeting, San Francisco, CA.
- Zinniker, D.A., Holmgren, C.A., Pagani, M. (2008) *Dynamic Response of Southwest Juniper to Shifting Climate and Natural and Anthropogenic Changes in Atmospheric pCO₂*, AGU fall meeting, San Francisco, CA.
- Zachos, J., DeConto, R., Pagani, M. (2008) *Cenozoic Rapid Climate Change and the Role of Feedbacks*, GSA fall meeting, Houston, TX.
- Ludvigson, G.A., Gonzalez, L.A. (2008) *Stable isotope proxies for polar paleoprecipitation in ancient greenhouse worlds*, GSA fall meeting, Houston, TX.
- Hren, M.T., Pagani, M. (2008) *Paleoelevation reconstruction of the Sierra Nevada from compound-specific isotopes of fossil leaves*, GSA fall meeting, Houston, TX.
- Douglas, P., Pagani, M., Brenner, M., Hodell, D. (2008) *Comparison of Biomarker Hydrogen and Shell-Carbonate Oxygen Isotope Proxies In Lake Chichancanab Sediment (Yucatan Peninsula, Mexico): Implications for the Terminal Classic Maya Collapse*, GSA fall meeting, Houston, TX.
- Pagani, M., Liu, Z., Huber, M. (2008) *The role of CO₂ during the Eocene-Oligocene Climate Transition* Goldschmidt Conference, Vancouver, Canada,
- Sluijs, A., Schouten, S., Röhl, U. (2008) Reichart, G.-J., Sinninghe Damsté J.S., Sangiorgi, F., Krishnan, S., Pagani, M., Brinkhuis, H., *Fresh and warm Arctic Ocean surface waters during Eocene Thermal Maximum 2*, EGU meeting, Vienna, Austria.

2007

- Zinniker, D., Tipple, B., Pagani, M. (2007) *Climatic and physiological controls on the stable isotope composition of modern and ancient Cupressaceae*, AGU fall meeting, San Francisco, CA.
- Baron, J.S., Schmidt, T., Hartman, M.D., Enders, S.K., Pagani, M., Wolfe, P., Krcmarik, A. (2007) *Complex Patterns in Climate and Atmospheric Nitrogen Deposition Influence Rocky Mountain Ecosystems*, AGU fall meeting, San Francisco, CA.
- Tipple, B.J., Pagani, M., Smith, R., Anders, A. (2007) *Orographic and Climatic Influence on Leaf Wax Carbon and Hydrogen Isotopic Ratios: a Field Survey From Northern California*, AGU fall meeting, San Francisco, CA.
- Enders, S.K., Pagani, M., Pantoja, S., Baron, J.S., Wolfe, A.P., Pedentchouk, N., Nunez, L. (2007) *Compound-Specific Stable Isotopes of Organic Compounds From Lake Sediments Track Recent Environmental Changes in an Alpine Ecosystem, Rocky Mountain National Park, Colorado (United States of America)*, AGU fall meeting, San Francisco, CA.
- Sluijs, A., Schouten, S., Rohl, U., Reichart, G., Sinninghe Damsté, J.S., Sangiorgi, F., Krishnan, S., Pagani, M., Brinkhuis, H. (2007) *Fresh and Warm Arctic Ocean Surface Waters During Eocene Thermal Maximum 2*, AGU fall meeting, San Francisco, CA.
- Zhonghui, L., Pagani, M., Ravelo, C.A. (2007) *Pliocene-Pleistocene pCO₂ changes based on alkenone carbon isotope*, AGU fall meeting, San Francisco, CA.
- Pagani, M., Liu, Z., Huber, M. (2007) *The role of pCO₂ during the Eocene-Oligocene climate transition*, Penrose Conference: Hothouse, Icehouse, and Impacts: The late Eocene Earth, Ancona, Italy.
- Yang, H., Kraus, M., LePage, B.A., Pagani, M. (2007) *Terrestrial carbon isotope record across the PETM at the Canadian High Arctic*, American Chemical Society meeting, Boston, MA.
- Zinniker, D.A., Pagani, M. (2007) *Stable isotopic composition of taxa-specific higher plant compounds in ancient packrat middens: A detailed record of seasonal climate in the Great Basin*, American Chemical

Society meeting, Boston, MA.

Tipple, B.J., Pagani, M. (2007) *Eliciting climatic controls on leaf wax carbon and hydrogen isotopic ratios: A field study from the eastern United States*, American Chemical Society meeting, Boston, MA.

2006

Tipple, B., Pagani, M. (2006) *A Neogene higher plant n-alkane carbon and hydrogen isotope record from the Gulf of Mexico*, AGU fall meeting, San Francisco, CA.

Yang, H., Blais, B., Perez, G., Pagani, M. (2006) *Climatic signals registered as carbon isotopic values in Metasequoia leaf tissues: A statistical analysis*, AGU fall meeting, San Francisco, CA.

Pagani, M., Pedentchouk, N., Huber, M., Sluijs, A., Schouten, S., Brinkhuis, H., Sinninghe Damsté, J. S., Dickens, G.R. (2006) *Arctic hydrology during global warming at the Palaeocene-Eocene thermal maximum*, Gordon Conference for Organic Geochemistry, New Hampshire. *poster*.

Enders, S.K., Pagani, M., Pantoja, S., Baron, J.S., Wolfe, A., N. Pedentchouk, N. (2006) *Compound-specific stable isotopes in lacustrine sediments track recent environmental change in Rocky Mountain National Park (CO)*, Gordon Conference for Organic Geochemistry, New Hampshire. *poster*.

Pedentchouk, N., Sumner W. Q., Tipple B., Pagani, M. (2006) *δD and $\delta^{13}C$ composition of n-alkanes from modern angiosperms and gymnosperms: an experimental set-up in a natural setting*, Gordon Conference for Organic Geochemistry, New Hampshire. *poster*.

Tipple, B., M., Pagani, M. (2006) *A Late Miocene n-alkane δD and $\delta^{13}C$ record from the Gulf of Mexico*, Gordon Conference for Organic Geochemistry, New Hampshire, *poster*.

Pagani, M., Pedentchouk, N., Huber, M., Sluijs, A., Schouten, S., Brinkhuis, H., Sinninghe Damsté, J. S., Dickens, G.R. (2006) *The nature of the negative carbon isotope excursion during the PETM: A view from the Arctic*, Climate and Biota of the Early Paleogene, Bilbao, Spain, *presentation*.

Sluijs, S., Schouten, S., Pagani, M., Brinkhuis, H., Sinninghe Damsté, J., Dickens, G.R., Huber, M., Reichart, G., Stein, R., Lourens, L.J. (2006) *A subtropical North Pole during the late Paleocene-early Eocene*, EGU Spring meeting, Vienna, Austria, *presentation*.

2005

Henderiks, J., Pagani, M., Hall, J. (2005) *New constraints on evolutionary changes in coccolithophorid cell geometry: Implications for past pCO_2 reconstructions*, AGU fall meeting, San Francisco, CA, *poster*.

Pedentchouk, N., Pagani, M., McElwain, J., Vitousek, P., and Chadwick, O. (2005) *Hydrogen Isotopes From Tree Leaves: Evaluation of Environmental and Phenotypic Controls*, AGU fall meeting, San Francisco, CA.

Sluijs, S., Schouten, S., Pagani, M., Brinkhuis, H., Sinninghe Damsté, J., Dickens, G.R., Huber, M., Reichart, G., Stein, R., Lourens, L.J. (2005) *Extremely High Late Palaeocene - Early Eocene Sea Surface Temperatures On The North Pole*, AGU fall meeting, San Francisco, CA, *invited presentation*.

Tipple, B., Pagani, M. (2005) *A biomarker record of the Paleogene evolution and expansion of C_4 plants*, GSA fall meeting, Salt Lake City, UT.

Pedentchouk, N., Pagani, M., McElwin, J. (2005) *D/H composition of n-alkanes from tree leaves: evaluation of environmental controls*, GSA fall meeting, Salt Lake City, UT.

Hong Yang, H., Equiza, M. A, Jagels, R., Pagani, M., Briggs, D.E.G. (2005) *Carbon and hydrogen isotopic compositions of deciduous conifers under a continuous-light environment: Implications for the interpretation of high-latitude plant isotope record at PETM*, GSA fall meeting, Salt Lake City, UT.

Meyers, S.R., Sageman, B.B., Pagani, M. (2005) *Resolving Milankovitch in the Vostok Climate Record: Consideration of Signal and Noise*, GSA fall meeting, Salt Lake City, UT.

Meyers, S.R., Pagani, M. (2005), *25-year quasi-periodic climate teleconnections between northern and southern Europe via the North Atlantic Oscillation*, EGU, Vienna, *poster*.

Pedentchouk, N. Pagani, M. (2005) *Hydrogen isotopic composition of n-alkanes from leaf waxes: an empirical evaluation of environmental controls*, Goldschmidt Conference, Moscow, ID, *presentation*.

2004

Meyers, S.R., Pagani, M. (2004) *Quasi-periodic climate teleconnections via the North Atlantic Oscillation: a new perspective from tree rings*, AGU fall meeting, *presentation*.

Tipple, B.J., Pagani, M. (2004) *Long-term regional contribution of Cenozoic C_4 plants to marine sediments*, GSA Fall meeting.

Yang, H., Liang, S., Tipple, B., Pagani, M., Briggs, D.E.G. (2004) *Carbon isotopic compositions of in-situ n-alkanes from an Arctic Eocene deciduous flora: were they influenced by the unique polar light regime?* Gordon Conference for Organic Geochemistry, New Hampshire, *poster*.

2003

- Pagani, M., Hall, J. (2003) *The use of alkenone $\delta^{13}C$ as a paleo-growth rate proxy*, AGU fall meeting, San Francisco, CA., *presentation*.
- Pagani M., Lemarchand, D., Spivack A., Gaillardet, J. (2003) *A critical review of the boron isotope-pH proxy*. GSA fall meeting, Seattle, WA, *poster*.
- Pagani, M., Freeman, K.H., Ohkouchi, N., Caldeira K. (2003) *A test of the alkenone-pCO₂ proxy*, EGU-AGU-EUG Joint Assembly, Nice, France, *poster*.

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- Pagani, M., Zachos J., Freeman, K.H. (2002) *Eocene/Oligocene CO₂ estimates*, Goldschmidt Conference, Davos, Switzerland, *presentation*.
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