

# CURRICULUM VITÆ

## RACHEL L. LUPIEN (she/her)

### Contact

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### Education

BROWN UNIVERSITY Providence, RI  
**May 2019** Ph.D., Earth, Environmental, and Planetary Sciences  
Advisor: James M. Russell | Outside Reader: Rick Potts of the Smithsonian Human Origins Program  
Dissertation: *The Plio-Pleistocene Climate History of East Africa and the Role of Environmental Change on Human Evolution: Studies of Leaf Wax Isotopes from Paleolake Sediment*

BROWN UNIVERSITY Providence, RI  
**May 2016** M.Sc., Earth, Environmental, and Planetary Sciences  
Advisor: James M. Russell  
Thesis: *Leaf wax biomarker record of rainfall from West Turkana, Kenya*

AMHERST COLLEGE Amherst, MA  
**May 2012** B.A., (cum Laude) Geology  
Advisor: Tekla A. Harms  
Thesis: *New Constraints on Cooling Ages for Proterozoic Accreted Arc and Metamorphic Core Zone Rocks of the Big Sky Orogen in Southwestern Montana*

### Research Experience

**Postdoctoral Research Scientist**, Lamont-Doherty Earth Observatory Palisades, NY  
July 2019 – Present, Peter de Menocal and Kevin Uno, Organic Geochemistry Lab

- Organic geochemical analyses of biomarker proxies for precipitation, vegetation, fire, human presence, and sea surface temperature using GC-FID and GC-MSD
- Compound-specific stable isotope analysis of organic molecules using GC-irMS
- Paleoclimate studies of the Oligocene to Holocene from East, North, and West Africa
- Advanced time series, statistical, and machine learning analyses of climate variability across scales
- Research grant and fellowship proposal writing and submission to NSF and private foundations

**Graduate Student Researcher**, Brown University Providence, RI  
August 2014 - May 2019, James Russell, Organic Geochemistry Lab

- Leaf wax biomarker hydrogen and carbon isotope analyses of lacustrine sediment using GC-IRMS
- Column chemistry and alkanolic acid compound distributions using FID
- East African paleohydrology and vegetation studies with advanced time series analysis techniques
- Fieldwork to collect lacustrine cores from South Sulawesi, Indonesia

**Research Assistant**, Lamont-Doherty Earth Observatory Palisades, NY  
August 2012 - July 2014, Steven Goldstein, Radiogenic Isotope Lab

- Ultraclean lab column chemistry and measurements of Neodymium isotopes using ICP-MS
- Paleoceanographic studies of circulation strength using Pleistocene Southern Ocean marine sediment

## Publications

1. Cohen, A.C., Campisano, C., Arrowsmith, R., Asrat, A., Beck, C., Behrensmeier, A.K., Deino, A., Deocampo, D., Feibel, C., Foerster, V., Kingston, J., Lamb, H., Lowenstein, T., **Lupien, R.L.**, Muiruri, V., Olago, D., Owen, R.B., Potts, R., Russell, J.M., Schaebitz, F., Stone, J., Trauth, M., Yost, C., and the Hominin Sites and Paleolakes Drilling Project (HSPDP) science team (*in press*). Reconstructing the Environmental Context of Human Origins in Eastern Africa through Scientific Drilling. *Annual Review of Earth and Planetary Sciences*.
2. Yost, C.L., **Lupien, R.L.**, Beck, C., Feibel, C., Archer, S., Cohen, A.S. (2021). Orbital influence on precipitation, fire, and grass community composition from 1.87 to 1.38 Ma in the Turkana Basin, Kenya. *Frontiers in Earth Science*. doi:10.3389/feart.2021.568646
3. **Lupien, R.L.**, Russell, J.M., Subramanian, A., Kinyanjui, R., Beverly, E.J., Uno, K., deMenocal, P., Potts, R. (2021). Eastern African environmental variation and its role in the evolution and cultural change in *Homo* over the last 1 million years. *Journal of Human Evolution*, 157. doi:10.1016/j.jhevol.2021.103028
4. Liang, J., **Lupien, R.L.**, Xie, H., Vachula, R.S., Stevenson, M.A., Han, B-P., Lin, Q., He, Y., Wang, M., Liang, P., Huang, Y., McGowen, S., Hou, J., Russell, J.M. (2021) Lake ecosystem on the Qinghai-Tibetan Plateau severely altered by climatic warming and human activity. *Palaeogeography, Palaeoclimatology, Palaeoecology*. doi:10.1016/j.palaeo.2021.110509
5. **Lupien, R.L.**, Russell, J.M., Yost, C.L., Kingston, J.D., Deino, A.L., Logan, J., Schuh, A., Cohen, A.S. (2021). Vegetation change in the Baringo Basin, East Africa across the onset of Northern Hemisphere glaciation 3.3–2.6 Ma. In Special Issue: A high resolution, multi-proxy record of Pliocene hominin environments in the Kenya Rift Valley: Analysis of the Baringo-Tugen Hills-Barsemoi (BTB) Drill Core. *Palaeogeography, Palaeoclimatology, Palaeoecology*. doi:10.1016/j.palaeo.2019.109426
6. Potts, R., Dommain, R., Moerman, J.W., Behrensmeier, A.K., Deino, A.L., Beverly, E.J., Brown, E.T., Deocampo, D., Kinyanjui, R., **Lupien, R.L.**, Owen, R.B., Rabideaux, N., Riedl, S., Russell, J.M., Stockhecke, M., deMenocal, P., Faith, J.T., Garcin, Y., Noren, A., Scott, J.J., Western, D., Bright, J., Clark, J.B., Cohern, A.S., Heil Jr., C.W., Keller, C.B., King, J., Levin, N., Brady, K., Muiruri, V., Renaut, R., Rucina, S.M., Uno, K. (2020). Increased ecological resource variability during a critical transition in hominin evolution. *Science Advances*, 6:43. doi:10.1126/sciadv.abc8975
7. **Lupien, R.L.**, Russell, J.M., Grove, M., Beck, C.C., Feibel, C.S., Cohen, A.S. (2020). Abrupt climate change and its impacts on hominin evolution during the early Pleistocene in the Turkana Basin, Kenya. *Quaternary Science Reviews*, 245. doi:10.1016/j.quascirev.2020.106531
8. Liang, J., Russell, J.M., Xie, H., **Lupien, R.L.**, Si, G., Wang, J., Hou, J., Zhang, G. (2019). Vegetation effects on temperature calibrations of branched glycerol dialkyl glycerol tetraether (brGDGTs) in soils. *Organic Geochemistry*, 127, 1-11. doi:10.1016/j.orggeochem.2018.10.010
9. **Lupien, R.L.**, Russell, J.M., Feibel, C., Beck, C., Castañeda, I., Deino, A., Cohen, A.S. (2018). Reply to Comments by Nutz & Schuster (2018) on: “A leaf wax biomarker record of early Pleistocene hydroclimate from West Turkana, Kenya”. *Quaternary Science Reviews*, 201C, 508-510. doi:10.1016/j.quascirev.2018.10.015
10. **Lupien, R.L.**, Russell, J.M., Feibel, C., Beck, C., Castañeda, I., Deino, A.L., Cohen, A.S. (2018). A leaf wax biomarker record of early Pleistocene hydroclimate from West Turkana, Kenya. *Quaternary Science Reviews*, 186, 225-235. doi:10.1016/j.quascirev.2018.03.012

### *In Review*

1. **Lupien, R.L.**, Russell, J.M., Pearson, E.J., Castañeda, I.S., Asrat, A., Foerster, V., Lamb, H., Roberts, H.M., Schäbitz, F., Trauth, M.H., Beck, C.C., Feibel, C.S., Kingston, J.D., Cohen, A.C. Orbital-scale controls on Pleistocene hydroclimate of eastern Africa. *Scientific Reports*.
2. Cohen, A.C., Du, A., Rowan, J., Yost, C.L., Billingsley, A.L., Campisano, C.J., Brown, E., Deino, A.L., Feibel, C.S., Grant, K., Kingston, J.D., **Lupien, R.L.**, Muiruri, V., Owen, R.B., Reed, K.E., Russell, J.M., Stockhecke, M. Plio-Pleistocene African environmental variability and mammalian evolution. *Proceedings of The National Academy of Sciences*.
3. Liang, J., Guo, Y., Xie, H., Richter, N., Vachula, R.S., **Lupien, R.L.**, Zhao, B., Wang, M., Yao, Y., Li, X., Zhou, H., Cao, X., Hou, J., Liu, J., Russell, J.M. Calibration and application of branched GDGTs to Tibetan lake sediments: the influence of temperature on the fall of the Guge Kingdom in Western Tibet, China. *Earth and Planetary Science Letters*.

### Research Funding

#### ***Pending***

- \$432,876 **NSF-EAR SGP: BRAINSTORM: Biomarker Records of Abrupt responses to Insolation using Neural networks to Test climate and ecosystem Relationships across timescales,** Lead PI.
- \$613,617 **NSF-OCE MG&G: Terrestrial Organics since The Oligocene (TOTO): The Rains Down in Africa,** Lead PI.

#### ***Awarded - \$324,297***

- 2020 **Columbia Climate Center:** Climate thresholds, environmental feedbacks, and human evolution: A combined geochemical and machine learning approach. PI, \$10,000
- 2018 **NSF-EAR SGP:** A 750,000-yr Leaf Wax Biomarker Record to Assess Environmental Change Across the Plio-Pleistocene Boundary in Tropical East Africa. Co-Author, \$302,472
- 2017 and 2018 **Institute at Brown for Env. and Society:** Graduate Research Grant, \$4,950, \$5,000
- 2016 **Geological Society of America:** Graduate Student Research Grant, \$1,875

### Invited Presentations

1. *George Washington University*, Center for the Advanced Study of Human Paleobiology, October 2021
2. *University of California, Santa Cruz*, Paleoclimate Group, Department of Ocean Sciences, May 2021
3. *Princeton University*, Environmental Geology & Geochemistry Seminar Lecture Series, Department of Geosciences, October 2020
4. *Binghamton University State University of New York*, Invited Speaker Seminar, Department of Geological Sciences, April 2020 – Delayed due to COVID-19
5. *Lamont-Doherty Earth Observatory of Columbia University*, Biology and Paleo Environment Seminar, April 2020
6. *Massachusetts Institute of Technology*, Sack Lunch Seminar Series, Department of Earth, Atmospheric and Planetary Sciences, March 2019
7. *Lamont-Doherty Earth Observatory of Columbia University*, Biology and Paleo Environment Seminar, October 2016

### Teaching

**Teaching Assistant**, Columbia in Kenya, Columbia and Princeton Universities

- 2020 Spring *Terrestrial Paleoecology*  
Three-week field course for Columbia and Princeton undergraduate students as part of a Tropical Biology and Sustainability semester abroad in Kenya

### Invited Guest Lecturer

2021 Spring *Middlebury College, Hamilton College, University of Richmond*

**Instructor**, 2018 STEM II Program, Brown University

2018 Summer *Human Evolution and the Environment*

Two-week intensive pre-college science course on climate change and human evolution

**Teaching Assistant**, Earth, Environment, and Planetary Sciences, Brown University

2016 Fall *Stratigraphy and Sedimentology*

2016 Spring *Earth: Evolution of a Habitable Planet*

### Pedagogical Training

2019-2020 **Inclusive Teaching: Supporting All Students in the College Classroom**

ColumbiaX: Columbia University Center for Teaching and Learning: [Verified Certificate](#)

2014-2015 **Reflective Teaching**

The Sheridan Center for Teaching, Brown University

### Academic Mentoring

#### *Graduate Level*

**Mock Prelim Exam Committee Member**, Brown University: Nora Richter, Ariel Deutsch, Ashley Palumbo, Rachel Sheppard, Abigale Bodner, Jenna Pearson, Richard Vachula, Sloane Garelick, Jennifer Kowalczyk

**1st Year Graduate Mentoring Program Mentor**, Brown University, 2017-2019

#### *Undergraduate and High School Level*

**Organics Laboratory**, LDEO, 2021: Juliet Tochtermann (thesis student), Vinay Bijoor, Mohammad Nadir Qureshi Torres

**Lamont Summer Intern Program Mentor**, LDEO, 2020: Cole Hazan, Queen's University, Time Series Analyses of Northeast African Hydroclimate Variability

**Undergraduate Thesis Advisor**, Brown University, 2018: Avinash Subramanian, Statistical Analysis of East African Paleoclimate Variations During the Late Pleistocene, and Implications for Human Evolution

**Undergraduate Teaching and Research Award Advisor**, Brown University, 2017: Tristan Reinecke  
**Science & Technological Investigative Research**, 2017: Dheivanai Moorthy, Suffern High School

### Fellowships and Awards

2017-2018 Institute at Brown for Environment and Society Graduate Fellowship, Brown University

2016 Urbino Summer School of Paleoclimatology Travel Grant and Stipend, NSF

2014-2015 Charles Wilson Brown Fellowship, Brown University

2011 Richard M. Foose Award, Amherst College

### Professional Development

2021 LinkedEarth PaleoHackathon, Virtual Python Workshop

2018 Advanced Climate Dynamics Course (ACDC), Finse, Norway

2017 International Continental Drilling Project (ICDP) Course, Windischeschenbach, Germany

2016 Urbino Summer School in Paleoclimatology (USSP), Urbino, Italy

## Service

### *Professional*

**Reviewer** of grant proposals for *National Science Foundation P2C2*

**Reviewer** of journal manuscripts for *Nature Communications Earth & Environment*; *PNAS*; *Geophysical Research Letters*; *Climate of the Past*; *Palaeogeography, Palaeoclimatology, Palaeoecology*; *Organic Geochemistry*; *Journal of Great Lakes Research*; *Climate Dynamics*; *Biogeosciences*; *Earth-Science Reviews*; *Paleoceanography and Paleoclimatology*

**Session Convener**, 2020, 2018 AGU Fall Meeting

### *Departmental*

**Leader**, Unlearning Racism in Geoscience (URGE) Lamont Pod, 2021-present, LDEO

**Postdoc Representative Alternate**, Executive Committee, 2021-present, LDEO

**Co-Chair**, Biology and Paleo Environment Seminar Series, 2019-present, LDEO

**Leader**, Graduate Women in Science and Engineering, 2015-2018, Brown University

**Member**, Diversity Working Group, 2015-2019, Brown University

**President**, Geology Graduate Student Group (GeoClub), 2015-2016, Brown University

### *Community*

**Media**, [Common Descent Podcast](#), [Twitch](#), [Time Scavengers](#), [Center for Climate and Life](#), [Women Doing Science](#), [Science-A-Thon](#)

**Public Talks**, Bolton Street Synagogue 60+ Group, Nerd Night Rhode Island

**Tutor**, Columbia Volunteer Tutor Program for affiliates affected by the COVID-19 crisis, 2020

**Science Teacher**, Vartan Gregorian Elementary School, Providence, RI, 2014-2017

**Scientist**, Skype-A-Scientist, 2017-present

**Member and Social Media**, 500 Women Scientists Providence Pod, 2017-2019

## Conference Abstracts

\* denotes mentee | ^ denotes invited

1. **Lupien, R.L.**, Uno, K.T., deMenocal, P.B., Rose, C., Polissar, P., 2021. Northeast African climate cycles from leaf wax isotopes in Plio-Pleistocene Mediterranean sapropels. 2021 AGU Fall Meeting.
2. \*Tochterman, J., **Lupien, R.L.**, Uno, K.T., deMenocal, P.B., Polissar, P., 2021. Implications for Cenozoic environmental trends and variability from leaf wax *n*-alkane distributions in Western Africa. 2021 AGU Fall Meeting.
3. Mitsunaga, B., Ouertani, S., **Lupien, R.L.**, Stubbs, B., Denio, A., Kingston, J., Stockhecke, M., Brown, E.T., Russell, J.M., A lipid biomarker record of Plio-Pleistocene hydroclimate change from the Baringo-Tugen Hills-Barsemoi Basin, Kenya. 2021 AGU Fall Meeting.
4. **Lupien, R.L.**, Uno, K.T., Habicht, H., deMenocal, P.B., 2020. West African hydroclimate trends and variability during the Cenozoic. 2020 AGU Fall Meeting.
5. \*Hazan, C., **Lupien, R.L.**, Uno, K.T., deMenocal, P.B., Polissar, P., 2020. Time series analyses of northeast African hydroclimate variability. 2020 AGU Fall Meeting.
6. Schäbitz, F., Foerster, V., Asrat, A., Cohen, A.S., Chapot, M.S., Dean, J.R., Deino, A., Deocampo, D., Düsing, W., Günter, C., Junginger, A., Kaboth-Bahr, S., Lamb, H., Lane, C., Leng, M., Opitz, S., **Lupien, R.L.**, Roberts, H., Ramsey, C., Russell, J., Pearson, E., Trauth, M.H., Vidal, C., Viehberg, F., Vogelsang, R., and HSPDP, 2020. The paleoclimate of Chew Bahir, Ethiopia, during the last 200 kyr: Human responses to hydroclimate fluctuations. 2020 AGU Fall Meeting.

7. **Lupien, R.L.**, deMenocal, P.B., Uno, K.T., Rose, C., Polissar, P., 2020. Northeast African Plio-Pleistocene climate patterns using plant wax isotopes from Mediterranean sapropels. 2020 GSA Annual Meeting.
8. Schäbitz, F., Asrat, A., Cohen, A.S., Dean, J., Deino, A., Deocampo, D., Düsing, W., Foerster, V., Günter, C., Junginger, A., Lamb, H., Lane, C., Leng, M., **Lupien, R.L.**, Roberts, H., Ramsey, C., Russell, J., Pearson, E., Vidal, C., Trauth, M., and HSPDP, 2020. Good times for leaving home? The paleoenvironment of Chew Bahir in south Ethiopia: implications for human evolution, dispersal and technological innovation. EGU General Assembly 2020.
9. Yehudai, M., Goldstein, S.L., Pena, L.D., Jaume-Seguí, M., Kim, J., Hartman, A.E., **Lupien, R.L.**, 2020. The Atlantic Meridional Overturning Circulation from Nd Isotopes. EGU General Assembly 2020.
10. **Lupien, R.L.**, Russell, J.M., Subramanian, A., Uno, K., deMenocal, P., Potts, R., 2019. The Role of Terrestrial Vegetation Variations in Hominin Evolution and behavioral Change in East Africa Throughout the Last One Million Years. 2019 AGU Fall Meeting, San Francisco, CA.
11. Mitsunaga, B., Stubbs, B., **Lupien, R.L.**, Deino, A., Kingston, J., Stockhecke, M., Brown, E., Russell, J.M., 2019. A Leaf Wax Biomarker Record of Plio-Pleistocene Environment Change from the Baringo Basin (Tugen Hills), Kenya. 2019 AGU Fall Meeting, San Francisco, CA.
12. Goldstein, S.L., Pena, L.P., Yehudai, M., Jaume-Seguí, M., Kim, J., Knudson, K., Basak, C., Hartman, A., **Lupien, R.L.**, 2019. AMOC Variability over the Last ~2 Ma from a North-South Atlantic Transect Using Nd Isotopes. 2019 AGU Fall Meeting, San Francisco, CA.
13. Goldstein, S.L., Pena, L.P., Yehudai, M., Kim, J., Jaume-Seguí, M., Knudson, K., Basak, C., Hartman, A., **Lupien, R.L.**, 2019. A 1.5 Myr History of the Atlantic Meridional Overturning Circulation from Nd isotopes. Goldschmidt 2019, Barcelona, Spain.
14. Yehudai, M., Goldstein, S.L., Pena, L.D., Jaume-Seguí, M., Kim, J., Hartman, A.E., **Lupien, R.L.**, 2019. Modes of the Atlantic Meridional Overturning Circulation from Nd Isotopes. Goldschmidt 2019, Barcelona, Spain.
15. Lamb, H., Asrat, A., Ramsey, C.B., Cohen, A., Chapot, M., Davies, S., Dean, J., Deino, A., Düsing, W., Foerster, V., Grove, M., Junginger, A., Lane, C., Leng, M., **Lupien, R.L.**, Pearson, E., Roberts, H., Russell, J., Schäbitz, F., Trauth, M., Vidal, C., 2019. The 600,000-year palaeoenvironmental record from Chew Bahir, Ethiopia: testing hypotheses of climate change and human origins. 2019 INQUA 20<sup>th</sup> Congress, Dublin, Ireland.
16. Cohen, A.S., Billingsley, A., Campisano, C., **Lupien, R.L.**, Muiruri, V., Owen, B., Russell, J.M., Stockhecke, M., Yost, C., HSPDP Team Members, 2019. A comparative analysis of African Plio-Pleistocene patterns of environmental variability and biological evolutionary implications. 2019 INQUA 20<sup>th</sup> Congress, Dublin, Ireland.
17. **Lupien, R.L.**, Russell, J.M., Beck, C., Feibel, C., Cohen, A.S., 2018. Early Pleistocene Millennial-Scale Hydroclimate Fluctuation in Kenya with Implications for Hominin Evolution. 2018 AGU Fall Meeting, Washington, D.C.
18. Russell, J.M., **Lupien, R.L.**, Cohen, A.S., Beck, C., Campisano, C., Castañeda, I., Deino, A., Feibel, C., Kingston, J., Lamb, H., Potts, R., 2018. Orbital-scale controls on Plio-Pleistocene African climate. 2018 AGU Fall Meeting, Washington, D.C.
19. \*Subramanian, A., **Lupien, R.L.**, Russell, J.M., Potts, R., Deino, A., Behrensmeyer, A.K., Dommoin, R., 2018. Middle to Late Pleistocene Paleoenvironmental Variations at the Olorgesailie Basin, Kenya. 2018 AGU Fall Meeting, Washington, D.C.
20. Cohen, A.C., Billingsley, A., Campisano, C., **Lupien, R.L.**, Muiruri, V.M., Bernhard, O.R., Russell, J.M., Stockhecke, M., Yost, C.L., and The HSPDP Team Members, 2018. Records of Plio-Pleistocene environmental

variability from the Hominin Sites and Paleolakes Drilling Project (HSPDP): Comparison with other African records and implications for hominin evolution. 2018 AGU Fall Meeting, Washington, D.C.

21. Castañeda, I.S., Thompson-Munson, M.E., Gilchrist, S., **Lupien, R.L.**, Russel, J.M, Salacup, J., Feibel, C., Cohen, A.S., 2018. Early Pleistocene temperature history of Paleolake Lorenyang, West Turkana Basin (Kenya). 2018 AGU Fall Meeting, Washington, D.C.
22. deMenocal, P.B., Polissar, P., Uno, K., Rose, C., Tierney, J., **Lupien, R.L.**, Russell, J., 2018. Paleoenvironmental Contexts of Hominin Evolution. 2018 AGU Fall Meeting, Washington, DC.
23. deMenocal, P.B., Polissar, P., Uno, K., Rose, C., Tierney, J., **Lupien, R.L.**, Russell, J., 2018. Paleoenvironmental Contexts of Hominin Evolution. 2018 GSA Annual Meeting, Indianapolis, IN.
24. Westover, K., Stone, J., Rabideaux, N., Yost, C.L., **Lupien, R.L.**, Kingston, J., 2018. Extreme hydroclimate variability in the Late Pliocene of Kenya's Baringo Basin: the diatom record. 2018 GSA Annual Meeting, Indianapolis, IN.
25. **Lupien, R.L.**, Russell, J.M., Cohen, A.S., Beck, C., Campisano, C., Castañeda, I., Deino, A., Feibel, C., Kingston, J., Lamb, H., Pearson, E., Potts, R., 2018. East African Paleoclimate and Human Evolution. 12<sup>th</sup> Graduate Climate Conference, Seattle, WA.
26. **Lupien, R.L.**, Russell, J.M., Cohen, A.S., Beck, C., Campisano, C., Castañeda, I., Deino, A., Feibel, C., Kingston, J., Lamb, H., Pearson, E., Potts, R., 2018. Site-Corrected Leaf Wax Biomarker Records Synthesized to Characterize East African Plio-Pleistocene Climate. Goldschmidt 2018, Boston, MA.
27. Goldstein, S.L., Pena, L.D., Yehudai, M., Jaime-Seguí, M., Kim, J., Knudson, K., Basak, C., Hartman, A.E., **Lupien, R.L.**, 2018. The Atlantic Meridional Overturning Circulation Over Time from Nd Isotopes. Goldschmidt 2018, Boston, MA.
28. **Lupien, R.L.**, Russell, J.M., Campisano, C., Feibel, C., Deino, A., Kingston, J., Potts, R., Cohen, A., 2017. A synthesis of Plio-Pleistocene leaf wax biomarker records of hydrological variation in East Africa and their relationship with hominin evolution. 2017 AGU Fall Meeting, New Orleans, LA.
29. **Lupien, R.L.**, Russell, J.M., Castañeda, I., Campisano, C., Cohen, A.C., 2017. Plio-Pleistocene biomarker records of climate in East Africa. 2017 Past Global Changes Open Science Meeting, Zaragoza, Spain.
30. **Lupien, R.L.**, Russell, J.M., Cohen, A., Feibel, C., Beck, C., Castañeda, I., 2016. Leaf wax biomarker reconstruction of Early Pleistocene hydrological variation during hominin evolution in West Turkana, Kenya. AGU Fall Meeting, San Francisco, CA.
31. **Lupien, R.L.**, Russell, J.M., Castañeda, I., Cohen, A., Feibel, C., Beck, C., 2015. Leaf wax biomarker record of rainfall from West Turkana, Kenya. 9<sup>th</sup> Graduate Climate Conference, Woods Hole, MA.
32. **Lupien, R.L.**, Russell, J.M., Castañeda, I., Cohen, A., Feibel, C., Beck, C., 2015. Leaf wax biomarker record of rainfall from West Turkana, Kenya. 2015 GSA Annual Meeting, Baltimore, MD.
33. Thompson-Munson, M., Castañeda, I.S., **Lupien, R.L.**, Russell, J.M., 2015. Late Pliocene and Early Pleistocene temperature reconstructions from paleolakes of the West Turkana and North Awash Basins, East Africa. 2015 GSA Annual Meeting, Baltimore, MD.
34. **Lupien, R.L.**, Pena, L., Goldstein, S., 2014. AMOC variability during the last 400 ka from Nd isotopes in the Southern Ocean. 2014 AGU Fall Meeting, San Francisco, CA.

35. **Lupien, R.L.**, Pena, L., Goldstein, S., 2013. Southern Ocean Nd isotope end-member variability during the last 400 kyr. 2013 AGU Fall Meeting, San Francisco, CA.
36. Pena, L.D., Goldstein, S.L., **Lupien, R.L.**, 2013. Abrupt Changes in Thermohaline Circulation During the Mid-Pleistocene Transition. 11<sup>th</sup> International Conference on Paleoceanography, Barcelona, Spain.
37. **Lupien, R.L.**, Harms, T.A., Hames, W.E., 2012. New constraints on cooling ages for Proterozoic accreted arc and metamorphic core zone rocks of the Big Sky orogen, SW Montana. 2012 GSA Northeastern Section Meeting, Hartford, CT.