

STEVEN L. D'HONDT

## Steven L. D'Hondt - Detailed Curriculum Vitae

### Contact

Graduate School of Oceanography  
University of Rhode Island  
Narragansett Bay Campus  
South Ferry Road,  
Narragansett, RI 02882

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### Personal

Born August 14, 1961, in Spokane, Washington, U.S.A.

### Research Interests

Oceanography, Geobiology

### Education

1990 Ph.D. Geological and Geophysical Sciences, Princeton University.  
1986 M.A. Geological and Geophysical Sciences, Princeton University.  
1984 B.S. Geology, Stanford University.

### Employment History

7/00-present *Full Professor*  
University of Rhode Island, Graduate School of Oceanography.  
8/11-9/12 *Interim Dean*  
University of Rhode Island, Graduate School of Oceanography  
7/95-6/00 *Associate Professor*  
University of Rhode Island, Graduate School of Oceanography.  
10/89-6/95 *Assistant Professor*  
University of Rhode Island, Graduate School of Oceanography.  
1985-1989 *Research Assistant and Laboratory Instructor*  
Princeton Department of Geological and Geophysical Sciences.  
1983-1984 *Museum Technician*  
U.S. Geological Survey, Branch of Paleontology and Stratigraphy.  
1982-1983 *Research Assistant*  
Stanford Geology Department.

### Professional Societies

American Geophysical Union  
American Society for Microbiology  
Geochemical Society

### Biographical details

ORCID number: [0000-0001-9915-1148](https://orcid.org/0000-0001-9915-1148)  
Laboratory - [http://www.gso.uri.edu/dhondt/lab/Welcome\\_to\\_the\\_DHondt\\_Lab.html](http://www.gso.uri.edu/dhondt/lab/Welcome_to_the_DHondt_Lab.html)  
Internet Movie Data Base (IMDB) – <https://www.imdb.com/name/nm5270604/>  
Google Scholar – <https://scholar.google.com/citations?user=n57IAiYAAAAJ&hl=en>  
Wikipedia – [https://en.wikipedia.org/wiki/Steven\\_D%27Hondt](https://en.wikipedia.org/wiki/Steven_D%27Hondt)

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### Professional Activity

#### •Editorial Boards

2011-present Editorial Board, *Environmental Microbiology Reports*.  
2003-2013 Editorial Board, *Astrobiology*.  
2000-2011 Editorial Advisory Board, *Geobiology*.  
1994-2000 Associate Editor, *Journal of Foraminiferal Research*.  
1995-1998 Editorial Board, *Geology*, Geological Society of America.

#### •Affiliate Position

2000-present Rhode Island Space Grant Associate Affiliate Director.

#### •International Panel and Committee Activity

2017 Participant, Meeting of Experts: Planetary Protection and Terrestrial Contamination Requirements Associated with Sample Caching and Return, Space Studies Board, National Academies of Sciences, Engineering, and Medicine, July 31-August 2, 2017

2016-present Member, International Science Advisory Board, Ocean Networks Canada  
2016-2018 Member, Contamination Control and Planetary Protection Working Group, Mars Exploration Program, National Aeronautics and Space Administration (NASA)

2012 Member, Large Lakes Observatory External Review Committee, University of Minnesota-Duluth.

2011-present Member, Scientific Steering Committee, Deep Life Community, Deep Carbon Observatory.

2010-present Member, Science Organization Committee, Exploring Diversity and Distribution of Deep Life Project, funded by the Sloan Foundation.

2010-present Member, Executive Committee, Center for Dark Energy Biosphere Investigations.  
2007-2011 Chairperson, Subsurface Life Task Force, Integrated Ocean Drilling Program (IODP) Management International.

2007-2008 Member, Science Planning Committee, IODP Science Advisory Structure.  
2006-2008 Schuchert Award Committee, Paleontological Society.  
2005-2007 Steering Committee Co-Chair, Workshop on "Exploring the Deep Biosphere with the Integrated Ocean Drilling Program", sponsored by IODP and the Joint Oceanographic Institutions U.S. Science Support Program.

2004-2010 Member, Benthic Systems Working Group, International Census of Marine Microbes (ICoMM), International Census of Marine Life.

2004-2008 Chairperson, Astrobiology Drilling Program Steering Committee, NASA Astrobiology Institute (NAI).

2001-2006 Member, Executive Council, NAI.  
2002-2003 Member, interim Planning Committee (IPC), interim Science Advisory Structure (iSAS), Integrated Ocean Drilling Program.

2000-2002 Member, Science Committee (SCICOM), Ocean Drilling Program (ODP), Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES).

1999 Member, Microbiology Steering Committee (BUGSCOM), *ad hoc* advisory committee on the deep biosphere, Joint Oceanographic Institutions (JOI).

1997-1998 Member, Science Steering and Evaluation Panel (SSEP) on the Dynamics of Earth's Environment, ODP.

1997-1998 Alternate member, SCICOM, ODP.  
1997 Member, Interim SSEP, ODP.  
1996-1997 General Member, Geobiology of Critical Intervals Committee (sponsored by NSF and the Paleontological Society).

1996 Alternate, Site Survey Panel, Ocean Drilling Program (ODP).  
1996 Member, Ocean History Panel, ODP.  
1989-1998 Member of Paleogene Planktonic Foraminifera Working Group.

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•Special Lectures and Conference Activities

- 2019 Invited Speaker, *Arrhenius Memorial Symposium*, Scripps Institution of Oceanography, November 4.
- 2019 Invited panelist, "*Extraterrestrial Life: From Dreams to Nightmares - Art, Vision and Science*"- A panel discussion with Erminio Pinque, Niels-Viggo S. Hobbs, and Steven D'Hondt, part of the Special Event Series, *To the Moon and Beyond: Celebrating the 50th-Anniversary of the Apollo 11 Moon Landing with Art, Science, and Exploration*, WaterFire Arts Center (Providence, RI), July 19.
- 2017 Invited Speaker, *Marine Geomicrobiology – a matter of energy*, An International Workshop marking the 10 years of Center for Geomicrobiology, Aarhus University and the Retirement of Bo Barker Jørgensen, August 28- September 1, 2017, Sandbjerg Castle.
- 2015 Participant, *Microenergy 2015*, 3rd international Workshop on Microbial Life Under Extreme Energy Limitation, September 21-25, Sandbjerg Castle, Denmark.
- 2014 Invited Speaker, ECORD Summer School on *Subseafloor Biosphere: Current Advances and Future Challenges*, University of Bremen, September 22-26.
- 2014 Distinguished Lecturer, *Notes from the underground (life beneath the seafloor) and What marine sedimentary porewater chemistry tells us about life*, Tsaihua J. Chow Lecture Series, Scripps Institution of Oceanography, May 12-13.
- 2013 Conference participant, *Imaging the Past to Imagine Our Future*, International Continental Drilling Program Science Conference (Potsdam, Germany), November 11-14.
- 2013 Participant, Schmidt Ocean Institute Research Symposium (Honolulu, Hawaii), November 1-2.
- 2013 Keynote Speaker, *Mysteries of Subseafloor Life*, Goldschmidt 2013 Conference (Florence, Italy).
- 2013 Distinguished Lecturer, Summer School on Integration of Geological and Biological Approaches for the Quest of Life in the Deep Subsurface, Shanghai (Tongji University, China), July 21-24.
- 2013 Invited Speaker, *Interdisciplinary Research*, Marine Geoscience Leadership Symposium, Consortium for Ocean Leadership (Washington, D.C.), March 11-15.
- 2013 Invited Panelist, *Carbon in Earth*, Deep Carbon Observatory International Science Meeting (Washington D.C., USA), March 3-5.
- 2013 Invited Speaker, *How Slow Can Life Go? Lessons from the Subseafloor*, 34<sup>th</sup> Annual Darwin Festival, Salem State University (MA, USA).
- 2011 Invited Speaker, *Some comments on pH in present & future estuaries*, Annual Meeting of the Research Coordinators for the National Estuarine Research Reserve System, March 1.
- 2011 Guest speaker, Committee on Planetary Protection Standards for Icy Bodies in the Outer Solar System, Space Studies Board, National Research Council, January 31-February 2.
- 2010 Co-organizer, Community workshop, *Deep Subsurface Microbiology and the Deep Carbon Observatory*, Deep Life Directorate.
- 2009 Participant, The IODP New Ventures in Exploring Scientific Targets (INVEST) conference, September 22-25, University of Bremen, Germany
- 2009 Invited Speaker, *Ocean Acidification and Rhode Island Impacts* Environmental Business Council, New England, Inc., Update on Climate Change— Understanding the Latest Science and the Implications for Rhode Island and New England, June 24.
- 2008 Invited Speaker, ECORD Summer School on *The Deep Subseafloor Biosphere*, University of Bremen, September 1-12.
- 2008 Invited Speaker, *Life in the Deep Subsurface: A Decade of Peeking at the Unseen Majority*, American Geophysical Union Fall Meeting.

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- 2008 Invited Speaker, *Geobiology 2008* (international training course), Symposium I, Colorado School of Mines, June 20.
- 2007 Invited Speaker, *International Workshop in Microbial Life under Extreme Energy Limitation*, University of Aarhus (Denmark), Oct 21-24.
- 2006 Invited Speaker, *Links between Geological Processes, Microbial Activities, and Evolution of Life*, Pardee Keynote Symposium, Geological Society of America (GSA) Annual Meeting.
- 2006 Keynote Speaker, *Extremophiles 2006*, Sept 17-22, Brest, France.
- 2006 Keynote Speaker, International Census of Marine Microbes Annual Meeting, June 12-15, 2006, NH Leeuwenhorst Noordwijkerhout, The Netherlands.
- 2005 Invited Speaker (“*Microbial Activities in Deep Subseafloor Sediments*”), International Symposium on Extremophiles and Their Applications, Nov 29-Dec 2, Toyo University, Tokyo, Japan.
- 2004 Invited Speaker (“*Subsurface Life on Earth and other planetary bodies*”), 66<sup>th</sup> New England Association of Chemistry Teachers Summer Conference (*Extraterrestrial Chemistry*), Brown University.
- 2004 Distinguished Professor Lectures, *Short Course on Geomicrobiology*, Shanghai (Tongji University), June 13-19, sponsored by IODP-China.
- 2004 Invited Speaker (“*Deep Biosphere Studies in ODP/IODP*”), 8<sup>th</sup> Annual DOSECC Workshop on Continental Scientific Drilling, Rutgers University.
- 2004 Keynote speaker (“*Earth's Subsurface Life*”), International Workshop on *Geomicrobiology – a research area in progress*, University of Aarhus, Denmark.
- 2004 Participant, NSF-sponsored Orion Workshop (Ocean Observing Initiative), January 4-8, San Juan, Puerto Rico.
- 2003 Participant, Ocean Observing Initiative/Integrated Ocean Drilling Program Workshop, July 17-18, Seattle, Washington.
- 2003 Participant, NASA-sponsored Forum on Concepts and Approaches for Jupiter Icy Moons Orbiter Mission, Houston, TX (June 14-18).
- 2003 Keynote Speaker (“*The Search for Subsurface Life*”), University of Massachusetts (Dartmouth) Sigma Xi Annual Meeting.
- 2002 Keynote speaker, Special Symposium on *The deep biosphere - Microbial communities in deeply buried media*, Goldschmidt Conference.
- 2002 Lecturer, NASA Astrobiology Institute/Centro Astrobiologia de España short course on *Astrobiology*.
- 1999 Convener (with David Kring), *Impacts and the Origin, Distribution, and Evolution of Life*, Pardee Keynote Symposium, Geological Society of America (GSA) Annual Meeting.
- 1999 Symposium Convener, *Chemical Records of Mass Extinction*, Goldschmidt Conference.
- 1999 Participant, Conference on Multiple Platform Exploration (COMPLEX), May 25-29, Vancouver, British Columbia.
- 1999 Participant, Workshop on Geobiology and the Earth Sciences in the Next Decade [sponsored by the U.S. National Science Foundation (NSF) and the Paleontological Society].
- 1998 Convener (with Dan Schrag and Lisa Sloan) of theme session, *Stability of the Mesozoic and Cenozoic Tropics*, American Geophysical Union (AGU) Spring Meeting.
- 1997 Invited speaker, *Ninth Annual Frontiers of Science Symposium*, November 6-8, National Academy of Science.
- 1997 U.S. Participant, Conference on Cooperative Ocean Riser Drilling (CONCORD), July 22-24, 1997, Tokyo, Japan.
- 1997 Convener (with Steven M. Stanley) of theme session, *Geobiology of Critical Intervals*, AGU Spring Meeting.
- 1995 Convener (with David E. Fastovsky) of *Paleontological Society Symposium, Recovery from Mass Extinctions*, GSA Annual Meeting.
- 1994 Invited speaker, *Cushman Foundation Symposium*, GSA Annual Meeting.
- 1994 Invited speaker, *GSA History of Geology Division Symposium*, GSA Annual Meeting.

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- 1993 Invited speaker, *Stratigraphic Record of Global Change*, SEPM.
- 1992 Invited speaker, *29th International Geological Congress*.
- 1992 Invited speaker, *North American Paleontological Convention*.
- 1991 Convener (with James C. Zachos) of theme session, *Cretaceous and Cenozoic Paleoclimate*, AGU Fall Meeting.

### •Invited Presentations

In addition to the lectures and conference activities detailed in the previous subsection, I have given invited lectures and panel presentations at more than 60 universities, research institutions, and public venues including:

Amherst College (2011), Auckland Museum (New Zealand) (2010), Boston University (1994, 2008), Brown University (1990, 1993, 1994, 2003, 2014), Caltech (2005), Carnegie Institute of Washington (2003, 2014), Centro Astrobiologia de España (2002), Colorado School of Mines (2008), Environmental Business Council of New England (2009), ExxonMobil Corporate Strategic Research Laboratory (NJ) (2014), Harvard University (2003, 2011), Lamont Doherty Earth Observatory (Columbia University) (2001), Marine Biological Laboratory (Woods Hole, MA, 2007), Massachusetts Institute of Technology (1993, 1999, 2008, 2011), Metcalf Institute (URI) (1998, 2000, 2002), Montana State University (Thermal Biology Institute) (2014), Monterey Bay Aquarium Research Institute (2000, 2009), NASA Goddard Space Flight Center (1998), NASA Astrobiology Institute (Director's Videoseminar Series) (2007), Northeast Regional Space Grant Meeting (2003), Pennsylvania State University (2002), Port Townsend Marine Science Center (2012), Portland State University (2006), Princeton University (1996), Rice University (2003), Rutgers University (New Brunswick / Piscataway) (1995, 1999, 2012), Salem State University (2013), Scripps Institution of Oceanography (UCSD) (2014, 2019), Tongji University (China) (2004, 2013), U.S. Naval War College (1997), Universidad de Zaragoza (Spain) (1992), Universidad Metropolitana (San Juan) (2000), University of Aarhus (Denmark) (2004, 2008), University of Alabama (Tuscaloosa) (1999, 2012), University of Arizona (2002), University of Bremen (Germany) (2008, 2014), University of California - Berkeley (Department of Integrative Biology) (2000), University of California - Los Angeles (1997), University of California - San Diego (2014), University of California - Santa Cruz (2002), University of Chicago (1994, 2000), University of Delaware (Newark) (1997, 2012), University of Hawaii (2009), University of Iowa (2012), University of Massachusetts (Amherst) (1992, 1998, 2011), University of Massachusetts (Dartmouth) (2003), University of Miami (2000, 2005), University of Michigan (1999), University of Minnesota (Duluth) (2011), University of Puerto Rico (Mayagüez) (1994), University of Puerto Rico (Río Piedras) (2018); University of Rhode Island Graduate School of Oceanography (1995, 2002, 2013), University of Rochester (2000), University of South Carolina (2009), University of Southern California (individual lectures to three separate departments, 2016), University of Tennessee (Knoxville) (1999), University of Washington (2002), Vanderbilt University (1999), Wesleyan University (2018), Western Washington University (1994, 2012), Woods Hole Oceanographic Institution (2004), Yale University (1992, 1996, 2000, 2011).

### •University Service

- 2019-present Member, Research Computing Services Advisory Committee, URI Information Technology Services
- 2018-present Member, Research Advisory Committee, URI Division of Research and Economic Development
- 2017-present Member, URI GSO Dean's Advisory Committee
- 2016 Member, *Ad Hoc* Committee advisory to Rhode Island Commissioner of Postsecondary Education regarding the State Funding Formula for Higher Education
- 2015 Member, Administrator Evaluation Committee for Graduate School of Oceanography Dean
- 2012-2013 Member, URI Administrative and Management Review Committee
- 2011-2012 Member, URI Council of Deans
- 2010 Co-coordinator, Vettesen Lecture Series

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2009-present	Senior Fellow, URI Coastal Institute
2009-2016	Member, URI Strategic Budget and Planning Council
2005-2011	Chair, URI GSO Dean's Advisory Committee
2004-present	Director of URI Geobiology Laboratory.
2004-2011	Member, URI GSO Dean's Advisory Committee
2004-2006	Member, URI GSO Marine Research Scientist Promotion and Tenure Committee
2003-2004	Chair, Vetlesen Climate Program, URI GSO.
2000-2003	Coordinator, Vetlesen Lecture Series, URI GSO.
2000-2003	URI GSO Space Review Committee.
1999-2002	URI GSO Personnel Review Committee.
1997-2000	URI GSO Outreach and Development Committee.
1995-1997	URI GSO Student Application and Review Committee.
1996-1998	URI GSO Personnel Review Committee.
1994-1995	URI GSO Outreach and Development Committee.
1992-1993	URI Faculty Senate Executive Committee member.
1990-1993	URI Faculty Senate.
1990-1992	URI GSO Educational Policy Committee.
1989-1994	URI GSO Core and Rock Facilities Committee.
1989-1990	URI GSO Personnel Review Committee.
1987-1988	Princeton University Priorities Committee.
1987-1988	Council of the Princeton University Community.

### Field Expeditions

2019	Shipboard Scientist, <i>RV Neil Armstrong</i> Expedition AR37, HADEX 1 Expedition (Advancing Novel Autonomous Underwater Vehicle Systems for Full-Ocean Depth Exploration and Research), September.
2018	Principal Investigator, shipboard scientist, <i>RV Endeavor</i> hadal sea trial of autonomous profiling and sampling system (Puerto Rico Trench), September.
2018	Principal Investigator, shipboard scientist, <i>RV Endeavor</i> (Rhode Island Endeavor Program) bathyal sea trial of autonomous profiling and sampling system (North Atlantic).
2017	Shore-based participant, <i>RV Sally Ride</i> Science Verification Cruise.
2016	Shore-based participant, <i>RV Endeavor</i> Cruise 576 (synthetic-line coring trial).
2014	Expedition organizer and shore-based participant, <i>RV Knorr</i> long-coring Expedition KN223 (North Atlantic).
2012	Shipboard Scientist, <i>RV Falkor</i> shakedown expedition (Nuuk, Greenland-Woods Hole, MA), July.
2010	Co-Chief Scientist (with F. Inagaki), Integrated Ocean Drilling Program Leg 329 (South Pacific Gyre Microbiology), <i>DV JOIDES Resolution</i> , October - December. This was the second drilling expedition to be dedicated to study of seafloor life.
2009	Chief Scientist, Equatorial and North Pacific Expedition KN-195(3), (Oceanographic control and global distributions of seafloor microbial life and activity), <i>RV Knorr</i> (inaugural scientific voyage of the U.S. deep piston-coring facility developed by Woods Hole Oceanographic Institution), Costa Rica to Hawaii, January – February.
2006-2007	Chief Scientist, Drilling site survey (Life in seafloor sediments of the South Pacific Gyre), <i>RV Roger Revelle</i> Expedition Knox-22RR, December - January.
2002	Shipboard Scientist, CORK seafloor biosphere sampling tests, Costa Rica Rift.
2002	Co-Chief Scientist (with Bo B. Jørgensen), Ocean Drilling Program Leg 201 (Seafloor Biosphere, eastern Pacific), <i>DV JOIDES Resolution</i> , January - March. This was the first drilling expedition to be dedicated to study of seafloor life.
1999	Study and sampling of Permian-Triassic boundary sequences in southern China.
1996	Ocean Drilling Program Leg 165 (Caribbean Sea)—shipboard scientist.

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- 1994 Survey and sampling of Cretaceous/Paleogene (K/Pg) boundary sequences in Mexico (Chiapas, Tabasco, Veracruz, Quintana Roo) and Belize.
- 1991 Mapping and sampling of K/Pg boundary sequences in the Beloc and Jacmel regions of Haiti.
- 1987 Survey and sampling of K/Pg boundary sequences from the Ghareb and Taqiye formations, Negev, Israel.
- 1983 Geologic survey of the Schell Creek and Snake Mountains, Nevada.

### Academic Honors

- 2011-2012 Ocean Leadership Distinguished Lecturer
- 2001 University of Rhode Island Outstanding Contributions to Research Award (given annually to a single URI faculty member).
- 1999 JOI-USSAC Distinguished Lecturer.
- 1984-1985 Princeton University / IBM Fellowship.
- 1979-1983 National Merit Scholar (Western Electric).

### Doctoral Dissertation

D'Hondt, S.L., 1990. Environmental change and the ecology and evolution of latest Cretaceous and earliest Paleocene planktic foraminifera. Princeton University, 164 pp.

### Patents

- 2017 Regberg, A., Z.M. Summers, A.L. N'Guessan, J. Kirkpatrick and S. D'Hondt, *Methods for Isolating Nucleic Acids from Samples* (U.S. Patent No. 20170342467), Provisional Application filed 31-May-2016. Final patent filed 19-May-2017 and published 30-November-2017.  
<https://patents.google.com/patent/US20170342467A1/en>

### Refereed Journal Articles

- In prep Fulfer, V.M., R. Pockalny and S. D'Hondt, Global Patterns of Net Respiration in Subseafloor Sediment.
- In prep Pockalny, R., G.A. Ramirez, J.A. Huber, B.N. Orcutt, J.B. Sylvan and S. D'Hondt, Habitability and Distribution of Subseafloor Life in Oceanic Basement.
- In prep Garber, A.I., G.A. Ramirez and S. D'Hondt, Metatranscriptomics indicate diverse cryptic metabolisms in deep anoxic sediment.
- In prep Sauvage, J.F., A. Flinders, A.J. Spivack, R. Pockalny, A.G. Dunlea, C. H. Anderson, D.C. Smith, R.W. Murray and S. D'Hondt, The contribution of water radiolysis to marine sedimentary life, for submission to *Nature*.
- In prep Suzuki, Y., S. Yamashita, M. Kouduka, Y. Ao, H. Mukai, S. Mitsunobu, H. Kagi, S. D'Hondt, F. Inagaki, Y. Morono, T. Hoshino, N. Tomioka and M. Ito, Deep microbial proliferation at the basalt interface in aged oceanic crust, for submission to *Nature*.
- In prep Vuillemin, A., S. Vargas, R. Pockalny, R.W. Murray, D.C. Smith, A.J. Spivack, S. D'Hondt and W.D. Orsi, Transcriptomics of homoacetogenic "Candidatus Atribacteria" dominating an abyssal subseafloor ecosystem, for submission to *Proceedings of the National Academy of Sciences*.
- Submitted Ramirez, G.A., A.I. Garber, L. Gómez-Consarnau and S. D'Hondt, Microbial rhodopsins in dark subseafloor habitats, submitted to *The ISME Journal*.

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- Submitted Hoshino, T., H. Doi, G.-I. Uramoto, L. Wörmer, R.R. Adhikari, N. Xiao, Y. Morono, S. **D'Hondt**, K.-U. Hinrichs and F. Inagaki, Global diversity of microbial communities in marine sediment, submitted to *Science Advances* 7/29/19.
- In revision Morono, Y., M. Ito, T. Hoshino, A. Ijiri, T. Terada, T. Hori, M. Ikehara, S. **D'Hondt** and F. Inagaki, Aerobic microbial life that persists in oxic marine sediment for 101.5 million years, in revision for consideration by *Nature Communications* 7/11/19.
- 2019 **D'Hondt**, S., R. Pockalny, V. Fulfer and A.J. Spivack, Subseafloor life and its biogeochemical impacts, Review paper commissioned by *Nature Communications* 10, 3519, doi: 10.1038/s41467-019-11450-z.
- 2019 Kerrigan, Z., J.B. Kirkpatrick and S. **D'Hondt**, Influence of 16S rRNA Hypervariable Region on Estimates of Bacterial Diversity and Community Composition in Seawater and Marine Sediment, *Frontiers in Microbiology* 10, 1640, doi: 10.3389/fmicb.2019.01640.
- 2019 Vuillemin, A., S.D. Wankel, Ö.K. Coskun, T. Magritsch, S. Vargas, E.R. Estes, A.J. Spivack, D.C. Smith, R. Pockalny, R.W. Murray, S. **D'Hondt** and W.D. Orsi, Archaea dominate oxic subseafloor communities for 15 million years, *Science Advances* 5(6), eaaw4108, doi: 10.1126/sciadv.aaw4108
- 2019 Kirkpatrick, J.B., E.A. Walsh, and S. **D'Hondt**, Microbial selection and survival in subseafloor sediment, *Frontiers in Microbiology* 10, 956, doi: 10.3389/fmicb.2019.00956
- 2019 **D'Hondt**, S., F. Inagaki, B.N. Orcutt, K.-U. Hinrichs, IODP Advances in Understanding of Subseafloor Life, IODP Advances in the Understanding of Subseafloor Life, *Oceanography* 32(1), 198–207, doi: 10.5670/oceanog.2019.146.
- 2019 Estes, E.R., R. Pockalny, S. **D'Hondt**, F. Inagaki, Y. Morono, R.W. Murray, D. Nordlund, A.J. Spivack, S.D. Wankel, N. Xiao and C.M. Hansel, Persistent organic matter in oxic subseafloor sediment, *Nature Geoscience* 12(2), 126-131, doi: 10.1038/s41561-018-0291-5.
- 2018 Dzaugis, M., A.J. Spivack and S. **D'Hondt**, Radiolytic H<sub>2</sub> Production in Martian Environments, *Astrobiology* 18(9), 1137-1146, doi: 10.1089/ast.2017.1654
- 2018 Ramírez, G.A., S.L. Jørgensen, R. Zhao and S. **D'Hondt**, Minimal influence of detrital DNA on marine sedimentary ecological surveys, *Frontiers in Microbiology* 9:92969, doi: 10.3389/fmicb.2018.02969
- 2018 Ramírez, G.A., D. Graham and S. **D'Hondt**, Influence of commercial DNA extraction kit choice on prokaryotic community metrics in marine sediment, *Limnology and Oceanography: Methods* 16, 525-536, doi: 10.1002/lom3.10264
- 2018 Uhlig, C., J.B. Kirkpatrick, S. **D'Hondt**, B. Loose, Methane oxidizing seawater microbial communities from an Arctic shelf, *Biogeosciences* 15, 3311-3329, doi: 10.5194/bg-15-3311-2018
- 2017 Sauvage, J., L. Lewis, D. Graham, A.J. Spivack and S. **D'Hondt**, Data report: quantification of potential drilling contamination using perfluorocarbon tracer at IODP Expedition 329 sites, *Proceedings of the Integrated Ocean Drilling Program*, 329, Tokyo (Integrated Ocean Drilling Program Management International, Inc.), doi:10.2204/iodp.proc.329.204.2017.



- 2016 Adhikari, R.R., C. Glombitza, J. Nickel, C.H. Anderson, A. J. Spivack, R.W. Murray, S. **D'Hondt** and J. Kallmeyer, Distribution and activity of hydrogenase enzymes in subsurface sediment, *Frontiers in Microbiology* 7:8, doi.org/10.3389/fmicb.2016.00008.
- 2016 Dzaugis, M.E., A.J. Spivack, A.G. Dunlea, R.W. Murray and S. **D'Hondt**, Radiolytic hydrogen production in the subseafloor basaltic aquifer, *Frontiers in Microbiology* 7, 76, doi: 10.3389/fmicb.2016.00076.
- 2016 Kirkpatrick, J.B., E.A. Walsh and S. **D'Hondt**, Fossil DNA persistence and decay in marine sediment over hundred-thousand-year to million-year time scales, *Geology* 44, 615-618, doi: 10.1130/G37933.1.
- 2016 Walsh, E.A., J.B. Kirkpatrick, R. Pockalny, J. Sauvage, A.J. Spivack, R. W. Murray, M.L. Sogin and S. **D'Hondt**, Relationship of bacterial richness to organic degradation rate and sediment age in subseafloor sediment, *Applied and Environmental Microbiology* 82(16), 4994-4999, doi: 10.1128/AEM.00809-16.
- 2016 Walsh, E.A., J.B. Kirkpatrick, D.C. Smith, M.L. Sogin and S. **D'Hondt**, Bacterial diversity and community composition from seafloor to subseafloor, *The ISME Journal* 10, 979-989, doi: 10.1038/ismej.2015.175.
- 2015 Dunlea, A.G., R.W. Murray, J. Sauvage, R.A. Pockalny, A.J. Spivack, R.N. Harris and S. **D'Hondt**, Cobalt-based Age Models of Pelagic Clay in the South Pacific Gyre, *Geochemistry, Geophysics, Geosystems* 16, 2694-2710, doi: 10.1002/2015GC005892.
- 2015 Dunlea A.G., R.W. Murray, J. Sauvage, A.J. Spivack, S. **D'Hondt** and R.N. Harris, Dust, volcanic ash, and the evolution of the South Pacific Gyre through the Cenozoic, *Paleoceanography* 30, 1078-1099, doi: 10.1002/2015PA002829.
- 2015 Dzaugis, M., A.J. Spivack, and S. **D'Hondt**, A quantitative model of water radiolysis and chemical production rates near radionuclide-containing solids, *Radiation Physics and Chemistry* 115, 127-134, doi: 10.1016/j.radphyschem.2015.06.011.
- 2015 Walsh, E.A., D.C. Smith, M.L. Sogin and S. **D'Hondt**, Bacterial and archaeal biogeography of the deep chlorophyll maximum in the South Pacific Gyre, *Aquatic Microbial Ecology* 75, 1-13, DOI: 10.3354/ame01746. Selected as a Feature Article by the Editors-in-Chief.
- 2015 **D'Hondt**, S., F. Inagaki, C. Alvarez Zarikian, L.J. Abrams, N. Dubois, T. Engelhardt, H. Evans, T. Ferdeman, B. Gribsholt, R. N. Harris, B.W. Hoppie, J.-H. Hyun, J. Kallmeyer, J. Kim, J.E. Lynch, C.C. McKinley, S. Mitsunobu, Y. Morono, R.W. Murray, R. Pockalny, J. Sauvage, T. Shimono, F. Shiraishi, D.C. Smith, C.E. Smith-Duque, A.J. Spivack, B.O. Steinsbu, Y. Suzuki, M. Szpak, L. Toffin, G. Uramoto, Y.T. Yamaguchi, G. Zhang, X.-H. Zhang and W. Ziebis, Presence of oxygen and aerobic communities from seafloor to basement in deep-sea sediment, *Nature Geoscience* 8, 299-304, DOI: 10.1038/NGEO2387.
- 2014 **D'Hondt**, S., G. Wang and A.J. Spivack, The underground economy (Energetic Constraints of Subseafloor Life), Chapter 2.3 in *Earth and Life Processes Discovered from Subseafloor Environment – A Decade of Science Achieved by the Integrated Ocean Drilling Program (IODP)*, R. Stein, D. Blackman, F. Inagaki, and H.-C. Larsen (Eds.), Series Developments in Marine Geology, Elsevier Amsterdam/New York, p 127-148 of 804 pp.

STEVEN L. D'HONDT

- 2014 Gallagher, S.J., N. Exon, M. Seton, M. Ikehara, C.J. Hollis, R. Arculus, S. **D'Hondt**, C. Foster, M. Gurnis, J.P. Kennett, R. McKay, A. Malakoff, J. Mori, K. Takai, and L. Wallace, Exploring new drilling prospects in the Southwest Pacific, *Scientific Drilling* **17**, 45–50, DOI: 10.5194/sd-17-45-2014.
- 2014 Lado Insua, T., A.J. Spivack, D. Graham, S. **D'Hondt** and K. Moran, Reconstruction of Pacific Ocean bottom water salinity during the Last Glacial Maximum, *Geophys. Res. Lett.* **41**, 2914–2920, doi:10.1002/2014GL059575.
- 2014 Miller, J.H., L. Kloepper, G.R. Potty, A.J. Spivack, S.L. **D'Hondt**, C. Turner and A.M. Simmons, The effects of pH on acoustic transmission loss in an estuary, *Proceedings of Meetings on Acoustics* **22**, 005001, DOI: 10.1121/2.0000007.
- 2014 Sauvage, J., A.J. Spivack, R.W. Murray and S. **D'Hondt**, Determination of *in situ* dissolved inorganic carbon concentration and alkalinity for marine sedimentary porewater, *Chemical Geology* **387**, 66-73.
- 2013 **D'Hondt**, S., F. Inagaki, C Alvarez Zarikian and the IODP Expedition 329 Scientists, IODP Expedition 329: Life and habitability beneath the seafloor of the South Pacific Gyre, *Scientific Drilling* **15**, 4-10.
- 2013 Dunlea, A.G., R.W. Murray, R.N. Harris, M.A. Vasiliev, H. Evans, A.J. Spivack, and S. **D'Hondt**, Assessment and Use of NGR Instrumentation on the *JOIDES Resolution* to Quantify U, Th, and K Concentrations in Marine Sediment, *Scientific Drilling* **15**, 57-63.
- 2013 Colwell, F.S., and S. **D'Hondt**, Nature and extent of the deep biosphere, *in* Carbon in the Earth, *Reviews in Mineralogy and Geochemistry* **75**, ed. by R.M. Hazen, R.J. Hemley, A. Jones and J. Baross, 547-574.
- 2012 Kallmeyer, J., R. Pockalny, R. Adhikari, D.C. Smith and S. **D'Hondt**, Global distribution of subseafloor sedimentary biomass, *Proceedings of the National Academy of Sciences* **109**(40), 16213-16216.
- 2012 Røy, H., J. Kallmeyer, R.R. Adhikari, R. Pockalny, B.B Jørgensen and S. **D'Hondt**, Aerobic microbial respiration in 86-million-year-old deep-sea red clay, *Science* **336** (6083), 922-925, DOI: 10.1126/science.1219424. Erratum (figure correction) in *Science* **336** (6088), 1506, DOI: 10.1126/science.336.6088.1506.
- 2012 Lomstein, B.A., A.T. Langerhuus, S. **D'Hondt**, B.B. Jørgensen and A.J. Spivack, Spore abundance, microbial growth and necromass turnover in deep subseafloor sediment, *Nature* **484**, 101–104, doi:10.1038/nature10905.
- 2012 Zhang, G., C. Smith-Duque, S. Tang, H. Li, C. Zarikian, S. **D'Hondt**, F. Inagaki and IODP Expedition 329 Scientists, Geochemistry of basalts from IODP site U1365: Implications for magmatism and mantle source signatures of the mid-Cretaceous Osborn Trough, *Lithos* **144-145**, 73-87.
- 2011 Halm, H., P. Lam, T.G. Ferdelman, G. Lavik, T. Dittmar, J. LaRoche, S. **D'Hondt** and M.M.M. Kuypers, Heterotrophic organisms dominate nitrogen fixation in the South Pacific Gyre, *The ISME Journal* **6**, 1238-1249, doi:10.1038/ismej.2011.182.
- 2011 Wehrmann, L.M., N. Risgaard-Petersen, H.N. Schrum, E.A. Walsh, Y. Huh, M. Ikehara, S. **D'Hondt**, T.G. Ferdelman, A.C. Ravelo, K. Takahashi, C. Alvarez Zarikian and the Integrated Ocean Drilling Program Expedition 323 Scientific Party, Coupled organic and inorganic carbon cycling in the deep subseafloor sediment of the northeastern Bering Sea Slope (IODP Exp. 323), *Chemical*

STEVEN L. D'HONDT

- Geology* **284**, 251–261.
- 2010 Wang, G., A.J. Spivack and S. **D'Hondt**, Gibbs energies of reaction and microbial mutualism in anaerobic deep seafloor sediments of ODP Site 1226, *Geochimica et Cosmochimica Acta* **74**, 3938-3947.
- 2009 **D'Hondt**, S., A. Spivack, R. Pockalny, T. Ferdelman, J. Fischer, J. Kallmeyer, L. Abrams, D.C. Smith, D. Graham, F. Hasiuk, H. Schrum and A. Stancin. Subseafloor sedimentary life in the South Pacific gyre, *Proceedings of the National Academy of Sciences* **106**(28), 11651-11656.
- 2009 Fischer, J.P., T.G. Ferdelman, S. **D'Hondt**, H. Røy, F. Wenzhöfer, Oxygen penetration deep into the sediment of the South Pacific gyre, *Biogeosciences* **6**, 1467-1478.
- 2009 Schrum, H.N., A.J. Spivack, M. Kastner and S. **D'Hondt**, Sulfate-reducing denitrification: A thermodynamically feasible metabolic pathway in subseafloor sediments, *Geology* **37**(10), 939-942.
- 2009 Soffientino, B., A.J. Spivack, D.C. Smith and S. **D'Hondt**, Hydrogenase activity in deeply buried sediments of the Arctic and North Atlantic Oceans, *Geomicrobiology Journal* **26**(7), 537-545.
- 2008 Kallmeyer, J., D.C. Smith, A.J. Spivack and S. **D'Hondt**, A new cell extraction procedure applied to sediments from the deep subsurface biosphere, *Limnology and Oceanography: Methods* **6**, 236-245.
- 2008 Wang, G., A.J. Spivack, S. Rutherford, U. Manor and S. **D'Hondt**, Quantification of co-occurring reaction rates in deep subseafloor sediments, *Geochimica et Cosmochimica Acta* **72**, 3479-3488, doi:10.1016/j.gca.2008.04.024.
- 2007 Blair, C.C., S. **D'Hondt**, A.J. Spivack and R.H. Kingsley, Potential of radiolytic hydrogen for microbial respiration in subseafloor sediments, *Astrobiology* **7**(6), 951-970.
- 2007 Riccardi, A., L.R. Kump, M.A. Arthur and S. **D'Hondt**, Carbon isotopic evidence for chemocline upward excursions during the end-Permian event, *Palaeogeography, Palaeoclimatology, Palaeoecology* **248**(1-2), 73-81.
- 2006 Smith, D.C., and S. **D'Hondt**, Exploration of life in deep subseafloor sediments, *Oceanography* **19**(4), 58-70.
- 2006 Jørgensen, B.B., and S. **D'Hondt**, A starving majority deep beneath the seafloor, *Science* **314**, 932-934.
- 2006 Jørgensen, B.B., S.L. **D'Hondt**, and D.J. Miller, Leg 201 synthesis: Controls on microbial communities in deeply buried sediments. In B.B. Jørgensen, S.L. **D'Hondt**, and D.J. Miller (Eds.), *Proc. ODP, Sci. Results*, 201, 1-45 [Print and CD-ROM]. Available from World Wide Web: <[http://www-odp.tamu.edu/publications/201\\_SR/synth/synth.htm](http://www-odp.tamu.edu/publications/201_SR/synth/synth.htm)>.
- 2006 Coxall, H.K., S. **D'Hondt**, and J.C. Zachos, Pelagic evolution and environmental recovery after the Cretaceous-Paleogene mass extinction, *Geology* **34**(4), 297-300, doi: 10.1130/G21702.1.
- 2006 Inagaki, F., T. Nunoura, S. Nakagawa, A. Teske, M. Lever, A. Lauer, M. Suzuki, K. Takai, M. Delwiche, F.S. Colwell, K.H. Nealson, K. Horikoshi, S. **D'Hondt** and B.B. Jørgensen, Biogeographical distribution and diversity of microbes in

STEVEN L. D'HONDT

- methane hydrate-bearing deep marine sediments on the Pacific Ocean Margin, *Proceedings of the National Academy of Sciences, U.S.A.* 103(8), 2815-2820.
- 2006 Soffientino, B., A.J. Spivack, D.C. Smith, E. Roggenstein, S. **D'Hondt**, A versatile and sensitive tritium-based radioassay for measuring Hydrogenase activity in aquatic sediments, *Journal of Microbiological Methods* 66, 136-146.
- 2005 **D'Hondt**, S., Consequences of the Cretaceous/Paleogene mass extinction for marine ecosystems, *Annual Review of Ecology, Evolution and Systematics* 36, 295-317, doi: 10.1146/annurev.ecolsys.35.021103.105715.
- 2004 **D'Hondt**, S, B.B Jørgensen, D.J. Miller, A. Batzke, R. Blake, B.A. Cragg, H. Cypionka, G.R. Dickens, T. Ferdelman, K.-U. Hinrichs, N.G. Holm, R. Mitterer, A. Spivack, G. Wang, B. Bekins, B. Engelen, K. Ford, G. Gettemy, S.D. Rutherford, H. Sass, C.G. Skilbeck, I.W. Aiello, G. Guèrin, C. House, F. Inagaki, P. Meister, T. Naehr, S. Niitsuma, R.J. Parkes, A. Schippers, D.C. Smith, A. Teske, J. Wiegel, C. Naranjo Padilla, J.L. Solis Acosta, Distributions of microbial activities in deep subseafloor sediments, *Science* 306, 2216-2221.
- 2004 Adams, J.B., M.E. Mann, and S. **D'Hondt**, The Cretaceous-Tertiary Extinction: Modeling Carbon Flux and Ecological Response, *Paleoceanography* 19, PA1002, doi: 10.1029/2002PA000849.
- 2003 Shipboard Scientific Party, Leg 201 Summary, In S.L. D'Hondt, B.B. Jørgensen, and D.J. Miller (Eds.), Controls on microbial communities in deeply buried sediments, eastern equatorial Pacific and Peru Margin Sites 1225-1231, *Proc. ODP, Init. Repts.*, 201 [Print and CD-ROM]. Available from Ocean Drilling Program, Texas A & M University, College Station TX 77845-9547, USA. Website: [http://www-odp.tamu.edu/publications/201\\_IR/chap\\_01/chap\\_01.htm](http://www-odp.tamu.edu/publications/201_IR/chap_01/chap_01.htm)
- 2002 **D'Hondt**, S., D.C. Smith, and A.J. Spivack, ODP exploration of the marine subsurface biosphere. *JOIDES Journal*, 28: 51-54, Available on-line at: [http://joides.rsmas.miami.edu/files/AandO/D'Hondt\\_ODPLegacy.pdf](http://joides.rsmas.miami.edu/files/AandO/D'Hondt_ODPLegacy.pdf)
- 2002 **D'Hondt**, S., and M.A. Arthur, Deep water in the late Maastrichtian ocean, *Paleoceanography* 17(1), doi: 10.1029/1999PA000486, 8-1—8-11.
- 2002 **D'Hondt**, S., S. Rutherford, and A.J. Spivack, Metabolic activity of subsurface life in deep-sea sediments, *Science* 295, 2067-2070.
- 2001 Epstein, B.L., S. **D'Hondt**, and P.E. Hargraves, The possible metabolic role of C<sub>37</sub> alkenones in *Emiliana huxleyi*, *Organic Geochemistry* 32, 867-875.
- 2000 Rutherford, S.D., and S. **D'Hondt**, Early onset and tropical forcing of 100,000 year Pleistocene glacial cycles, *Nature*, 408, 72-75.
- 2000 Chaisson, W.P., and S.L. **D'Hondt**, Neogene planktonic foraminifer biostratigraphy at Site 999, western Caribbean Sea, *Scientific Results of the Ocean Drilling Program* 165, 19-56.
- 1999 Rutherford, S.D., S. **D'Hondt**, and W. Prell, Environmental controls on the geographic distribution of zooplankton diversity, *Nature* 400, 749-753.
- 1999 **D'Hondt**, S., C. Liu, and R.K. Olsson. Family GUEMBELITRIIDAE Montanaro Gallitelli, 1957, In *Atlas Of Paleocene Planktonic Foraminifera* (R.K. Olsson, C. Hemleben, W.A. Berggren, and B.T. Huber, eds.), Smithsonian Contributions to Paleobiology 85, Smithsonian Institution Press, 77-87 and 232-243.

STEVEN L. D'HONDT

- 1999 **D'Hondt, S.**, and B.T. Huber, Family CHILOGUEMBELINIDAE Reiss, 1963, In *Atlas Of Paleocene Planktonic Foraminifera* (R.K. Olsson., C. Hemleben, W.A. Berggren, and B.T. Huber, eds.), Smithsonian Contributions to Paleobiology 85, Smithsonian Institution Press, 88-92 and 244-247.
- 1998 **D'Hondt, S.**, Theories of terrestrial mass extinction by extraterrestrial objects, *Earth Sciences History* 17(2), 157-173.
- 1998 **D'Hondt, S.**, Isotopic proxies for ecological collapse and recovery from mass extinctions, In *Isotope Paleobiology and Paleoecology* [The Paleontological Society Papers, 4 (R. Corfield and R. Norris, eds.)], Paleontological Society, 179-211.
- 1998 **D'Hondt, S.**, and J.C. Zachos, Cretaceous foraminifera and the evolutionary history of planktic photosymbiosis, *Paleobiology*, 24, 512-523.
- 1998 **D'Hondt, S.**, P. Donaghay, J.C. Zachos, D. Luttenberg, and M. Lindinger, Organic carbon fluxes and ecological recovery from the Cretaceous/Tertiary mass extinction, *Science* 282, 276-279.
- 1998 Epstein, B.L., S. **D'Hondt**, J.G. Quinn, J. Zhang, and P.E. Hargraves, An effect of dissolved nutrient concentrations on alkenone-based temperature estimates, *Paleoceanography (Paleoceanographic Currents)* 13, 122-126.
- 1998 Pope, K.O., S.L. **D'Hondt**, and C.R. Marshall, Meteorite impact and the mass extinction of species at the Cretaceous/Tertiary boundary, *Proceedings of the National Academy of Sciences, U.S.A.* 95, 11028-11029.
- 1996 **D'Hondt, S.**, and M.A. Arthur, Late Cretaceous oceans and the cool tropic paradox, *Science* 271, 1838-1841.
- 1996 **D'Hondt, S.**, J. King, and C. Gibson, An oscillatory marine response to the Cretaceous/Tertiary impact, *Geology* 24, 611-614.
- 1996 **D'Hondt, S.**, T.D. Herbert, J. King, and C. Gibson, Planktic foraminifera, asteroids, and marine production: death and recovery at the Cretaceous-Tertiary boundary. in *New developments regarding the K/T event and other catastrophes in earth history, Geological Society of America Special Paper 307*, ed. by G.T. Ryder, D.E. Fastovsky, and S. Gartner, 303-317.
- 1996 Schultz, P., and S. **D'Hondt**, The Cretaceous/Tertiary (Chicxulub) impact angle and its consequences, *Geology* 24, 963-967.
- 1996 ODP Leg 165 Scientific Party, Deep-sea cores from the Caribbean reveal history of volcanism, tectonics, and oceanic change, *Eos, Transactions, American Geophysical Union* 77(31), 291.
- 1995 **D'Hondt, S.**, and M.A. Arthur, Interspecies variation in stable isotopic signals of Maastrichtian planktonic foraminifera, *Paleoceanography* 10(1), 123-135.
- 1994 **D'Hondt, S.**, The impact of the Cretaceous-Tertiary boundary, *Palaios*, Online, 9(3), 221-223.
- 1994 **D'Hondt, S.**, J.C. Zachos, and G. Schultz, Stable isotopes and photosymbiosis in late Paleocene planktic foraminifera, *Paleobiology* 20 (3), 391-406.

STEVEN L. D'HONDT

- 1994 **D'Hondt, S., M.E.Q. Pilson, H. Sigurdsson, A. Hanson, and S. Carey, Surface-water acidification and extinction at the Cretaceous-Tertiary boundary, *Geology* 22, 983-986.**
- 1994 **D'Hondt, S., The evidence for a meteorite impact at the Cretaceous-Tertiary boundary, in *Extinction and the Fossil Record* (ed. by E. Molina), Cuadernos Interdisciplinarios, No. 5, Seminario Interdisciplinar de la Universidad de Zaragoza, 75-96.**
- 1994 **D'Hondt, S., and M. Lindinger, A stable isotopic record of the Maastrichtian ocean-climate system: South Atlantic DSDP site 528, *Palaeogeography, Palaeoclimatology, Palaeoecology* 112 (3/4), 363-378.**
- 1993 **D'Hondt, S., and J.C. Zachos, On stable isotopic variation and earliest Paleocene planktonic foraminifera, *Paleoceanography* 8(4), 527-547.**
- 1993 Park, J., S. **D'Hondt, J.W. King and C. Gibson, Late Cretaceous precessional cycles in double time: A warm-earth Milankovitch response, *Science* 261, 1431-1434.**
- 1992 **D'Hondt, S., and T.D. Herbert, Comment on "Hiatus distributions and mass extinctions at the Cretaceous/Tertiary boundary" by N. MacLeod and G. Keller, *Geology* 20(4), 380-382.**
- 1992 Sigurdsson, H., S. **D'Hondt and S. Carey, The impact of the Cretaceous/Tertiary bolide on evaporite terrane and generation of a major sulfuric acid aerosol, *Earth and Planetary Science Letters* 109(3/4), 543-559.**
- 1991 **D'Hondt, S., and G. Keller, Some patterns of planktic foraminiferal assemblage turnover at the Cretaceous-Tertiary boundary, *Marine Micropaleontology* 17, 77-118.**
- 1991 **D'Hondt, S.L., Phylogenetic and stratigraphic analysis of earliest Paleocene triserial and biserial planktonic foraminifera, *Journal of Foraminiferal Research* 21(2), 168-181.**
- 1991 Sigurdsson, H., Ph. Bonté, L. Turpin, M. Chaussidon, N. Metrich, M. Steinberg, Ph. Pradel, and S. **D'Hondt, Geochemical constraints on source region of Cretaceous/Tertiary impact glasses, *Nature* 353, 839-842.**
- 1991 Sigurdsson, H., S. **D'Hondt, M.A. Arthur, T.J. Bralower, J.C. Zachos, M. van Fossen, and J.E.T. Channell, Glass from the Cretaceous-Tertiary boundary in Haiti, *Nature* 349, 482-487.**
- 1990 Herbert, T.D. and S.L. **D'Hondt, Precessional climate cyclicity in Late Cretaceous-Early Tertiary marine sediments: a high resolution chronometer of Cretaceous-Tertiary boundary events, *Earth and Planetary Science Letters* 99(3), 263-275.**
- 1987 **D'Hondt, S.L., G. Keller, and R.F. Stallard, Major element compositional variation within and between different Late Eocene microtektite strewnfields, *Meteoritics*, 22(1), 61-79.**
- 1987 Keller, G., S.L. **D'Hondt, J.S. Gilmore, P.Q. Oliver, C.J. Orth, E.M. Shoemaker, and E. Molina, Late Eocene impact microspherules: stratigraphy, age and geochemistry, *Meteoritics* 22(1), 25-60.**

STEVEN L. D'HONDT

- 1987 Keller, G., T. Herbert, R. Dorsey, S. **D'Hondt**, M. Johnsson, and W.R. Chi, Global distribution of late Paleogene hiatuses, *Geology* 15(3), 199-203.
- 1984 Keller, G., S. **D'Hondt**, and T.L. Vallier, Reply to B.P. Glass (comment on Multiple microtektite horizons in upper Eocene marine sediments), *Science* 224, 309-310.
- 1983 Keller, G., S. **D'Hondt**, and T.L. Vallier, Multiple microtektite horizons in upper Eocene marine sediments: no evidence of mass extinctions, *Science* 221, 150-152.

**Special Publications**

- 2011 **D'Hondt**, S., F. Inagaki, C.A. Alvarez Zarikian, and the Expedition 329 Scientists. South Pacific Gyre Subseafloor Life, *Proc. IODP*, 329: Tokyo (Integrated Ocean Drilling Program Management International, Inc.). doi:10.2204/iodp.proc.329.2011
- 2011 **D'Hondt**, S., Abrams, L.J., Anderson, R., Dorrance, J., Durbin, A., Ellett, L., Ferdelman, T., Fischer, J., Forschner, S., Fuldauer, R., Goldstein, H., Graham, D., Griffith, W., Halm, H., Harris, R., Harrison, B., Hasiuk, F., Horn, G., Kallmeyer, J., Lever, M., Meyer, J., Morse, L., Moser, C., Murphy, B., Nordhausen, A., Parry, L., Pockalny, R., Puschell, A., Rogers, J., Schrum, H., Smith, D.C., Soffientino, B., Spivack, A.J., Stancin, A., Steinman, M., and Walczak, P., 2011. KNOX-02RR: drilling site survey—life in subseafloor sediments of the South Pacific Gyre. *In* **D'Hondt**, S., Inagaki, F., Alvarez Zarikian, C.A., and the Expedition 329 Scientists, *Proc. IODP*, 329: Tokyo (Integrated Ocean Drilling Program Management International, Inc.). doi:10.2204/iodp.proc.329.112.2011
- 2011 Expedition 329 Scientists, 2011, South Pacific Gyre: subseafloor life and habitability in the South Pacific Gyre. *IODP Prel. Rept.*, 329, doi:10.2204/iodp.pr.329.2011
- 2010 **D'Hondt**, S., F. Inagaki and C. Alvarez Zarikian, South Pacific Gyre Microbiology. *Integrated Ocean Drilling Program Scientific Prospectus* 329, doi:10.2204/iodp.sp.329.2010 ([http://publications.iodp.org/scientific\\_prospectus/329/index.html](http://publications.iodp.org/scientific_prospectus/329/index.html)).
- 2007 **D'Hondt**, S., F. Inagaki, T. Ferdelman, B.B. Jørgensen, K. Kato, P. Kemp, P. Sobecky, M. Sogin and K. Takai, Exploring Subseafloor Life with the Integrated Ocean Drilling Program, *Scientific Drilling* 5, 26-37, doi:10.2204/iodp.sd.5.03.2007.
- 2006 Jørgensen, B.B., S. **D'Hondt**, and D.J. Miller et al., *Proc. ODP, Sci. Results*, 201 [CD-ROM]. Available from Ocean Drilling Program, Texas A & M University, College Station TX 77845-9547, USA. Website: [http://www-odp.tamu.edu/publications/201\\_SR/201sr.htm](http://www-odp.tamu.edu/publications/201_SR/201sr.htm)
- 2003 **D'Hondt**, S., B.B. Jørgensen, D.J. Miller et al., Controls on microbial communities in deeply buried sediments, eastern equatorial Pacific and Peru Margin Sites 1225-1231, *Proc. ODP, Init. Repts.*, 201 [CD-ROM]. Available from Ocean Drilling Program, Texas A & M University, College Station TX 77845-9547, USA ([http://www-odp.tamu.edu/publications/201\\_IR/201ir.htm](http://www-odp.tamu.edu/publications/201_IR/201ir.htm)).
- 2002 Shipboard Scientific Party, Controls on Microbial Communities in Deeply Buried Sediments, Eastern Equatorial Pacific and Peru Margin, *ODP Preliminary Report*, 201 ([http://www-odp.tamu.edu/publications/prelim/201\\_prel/201toc.html](http://www-odp.tamu.edu/publications/prelim/201_prel/201toc.html)).

## STEVEN L. D'HONDT

- 2002 Rutherford, S., and S. **D'Hondt**, Subsurface Chemical and Thermal Information for the Sub-Seafloor Biosphere [Online (<http://deschutes.gso.uri.edu/subsurface/>)].
- 1997 Sigurdsson, H, R.M. Leckie, G.D. Acton...S. **D'Hondt** et al., *Proceedings ODP, Initial Reports* 165, College Station, TX (Ocean Drilling Program), 865 pp.

### Non-refereed Publications

- 2013 **D'Hondt**, S., Subsurface sustenance, News and Views, *Nature Geoscience* **6**, 426–427, doi:10.1038/ngeo1843.
- 2012 **D'Hondt**, S., Introduction to Zachos, J. C., Arthur, M. A., and Dean, W. E., 1989, Geochemical Evidence for Suppression of Pelagic Marine Productivity at the Cretaceous/Tertiary Boundary. *Nature*, v. 337, p. 61-64, for *Foundations of Paleoecology*.
- 2011 **D'Hondt**, S., and D.C. Smith, The importance of being earnestly integrated, Crystal Ball – 2011, *Environmental Microbiology Reports* **3**, 5-6.
- 2004 Scott, E.C., ... S. **D'Hondt** et al. (443 authors). The Morphology of Steve, *Annals of Improbable Research*, July/August. p. 24-29.
- 2003 **D'Hondt**, S., Ocean-Drilling Exploration of Life Beneath the Seafloor, *Advance in Earth Sciences* [Chinese], **18** (5), 759-763.
- 2003 **D'Hondt**, S., B.B. Jørgensen, D. Jay Miller, and the Leg 201 Scientific Party, ODP Leg 201 explores microbial life in deeply buried marine sediments, *JOIDES Journal*, **29** (1): 11-15. 2003.
- 2002 **D'Hondt**, S., and S. Rutherford, New website helps predict microbial activity, *JOI/USSAC Newsletter*, **15** (1), p 18 and 24.
- 2000 **D'Hondt**, S. Buried Life, *Maritimes*, The University of Rhode Island, Graduate School of Oceanography, **42** (2), 6-8.
- 1997 **D'Hondt**, S. Oceanic evidence of the K/T impact, *Maritimes*, The University of Rhode Island, Graduate School of Oceanography, **39** (2), 21-24.
- 1991 **D'Hondt**, S., and H. Sigurdsson. What killed the dinosaurs?, *Maritimes*, The University of Rhode Island, Graduate School of Oceanography, **35** (3), 4-6.

### Published Abstracts

- Submitted Fulfer, V., R. Pockalny and S. **D'Hondt**, Global Patterns of Net Respiration in Subseafloor Sediment, submitted for 2019 Fall Meeting, AGU, San Francisco, CA.
- Submitted Sauvage, J.F., A. Flinders, A.J. Spivack, R. Pockalny, A.G. Dunlea, C.H. Anderson, D.C. Smith, R.W. Murray and S. **D'Hondt**, The contribution of water radiolysis to marine sedimentary life, submitted for 2019 Fall Meeting, AGU, San Francisco, CA.
- 2018 **D'Hondt**, S., J. Sauvage, A.F. Flinders and A.J. Spivack, Habitability of water-radiolytic worlds, Abstract B23E-2549, 2018 Fall Meeting, AGU, Washington, DC.



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- 2018 Hoshino, T., H. Doi, L. Wörmer, Y. Morono, S. **D'Hondt**, K.-U. Hinrichs and F. Inagaki, Global diversity of subseafloor microbial community, Abstract B23E-2548, 2018 Fall Meeting, AGU, Washington, DC.
- 2018 Pockalny, R.A., S. **D'Hondt**, G. Ramírez, J.A. Huber, B. Orcutt and J.B. Sylvan, Habitability and Distribution of Subseafloor Life in Oceanic Basement, Abstract V11E-0067, 2018 Fall Meeting, AGU, Washington, DC.
- 2018 Vuillemin, A., T. Magritsch, S. Vargas, R. Pockalny, D.C. Smith, A.J. Spivack, S. **D'Hondt** and W. Orsi, Microbial diversity, abundance and metabolism in oxic and anoxic abyssal clays from the North Atlantic Ocean, *Geophysical Research Abstracts* 20, EGU 2018-2937, EGU General Assembly.
- 2018 Dore, J.E., M.J. Amenabar, S. **D'Hondt**, and E. S. Boyd, Limitations to microbial anabolism in ultra-oligotrophic subseafloor sediments of the North Atlantic subtropical gyre, 2018 ASLO Summer Meeting, Victoria, BC, Canada. June 6-15.
- 2017 Fulfer, V., R. Pockalny and S. **D'Hondt**, Global distribution of net electron acceptance in subseafloor sediment. Abstract 280691, 2017 Fall Meeting, AGU, New Orleans, LA.
- 2017 Sauvage, J.F., A. Flinders, A. Spivack and S. **D'Hondt**, Global distribution of radiolytic H<sub>2</sub> production in marine sediment and implications for subsurface life. Abstract 294298, 2017 Fall Meeting, AGU, New Orleans, LA.
- 2017 **D'Hondt**, S., J.B. Kirkpatrick, R. Pockalny, J. Sauvage, A.J. Spivack and E.A. Walsh, Energy sources and taxonomic selection in subseafloor sedimentary communities, International workshop on marine geomicrobiology - a matter of energy. Sandbjerg Manor, Denmark. August 28 - September 1, 2017.
- 2016 Dzaugis, M.E., A.J. Spivack and S. **D'Hondt**, Radiolytic H<sub>2</sub> production in different Martian environments, Abstract P21C-2136, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
- 2016 Sauvage, J., A.J. Spivack, D.C. Smith, C.H. Anderson, R.W. Murray and S. **D'Hondt**, Sedimentary Catalysis of Radiolytic Hydrogen Production – A Global Perspective, Abstract B21E-0470, 2016 Fall Meeting, AGU, San Francisco, Calif., 12-16 Dec.
- 2016 **D'Hondt**, S., A clockwork Earth: Mike Arthur, Al Fischer and recurrent cycles in geologic thought (invited), *Geological Society of America Abstracts with Programs*. 48(7), doi: 10.1130/abs/2016AM-284969
- 2016 Morono, Y., T. Terada, M. Ito, T. Hoshino, S. **D'Hondt** and F. Inagaki, Distribution of Aerobic Microbial Activities in Ultra-Oligotrophic Sediments of the South Pacific Gyre, 2016 Goldschmidt Meeting, Yokohama, June 26-July 1.
- 2016 Estes, E.R., W. Orsi, C.M. Hansel, C.H. Anderson, R.W. Murray, D. Nordlund, S.D. Wankel, D.B. Johnson, A.J. Spivack, J. Sauvage, C.C. McKinley, K.L. Homola, T.M. Present and S. **D'Hondt**, Insight into metabolic potential of carbon-poor pelagic sediment derived from the abundance and composition of organic carbon, Abstract MM44B-0493, 2016 Ocean Sciences Meeting, New Orleans, 21-26 Feb.
- 2015 Amenabar, M., J. Dore, A.J. Spivack, R.W. Murray, S. **D'Hondt** and E. Boyd, Preliminary insights into the interplay among oxygen, organic carbon, and microbial metabolism in North Atlantic subseafloor sediment communities, Abstract PP41C-04, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

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- 2015 Anderson, C.H., E.R. Estes, M. D. Dyar, R.W. Murray, A.J. Spivack, J. Sauvage, C.C. McKinley, T.M. Present, K.L. Homola, R.A. Pockalny, and S. **D'Hondt**, Iron cycling in sediment of the North Atlantic: Preliminary results from R/V Knorr Expedition 223, Abstract PP43A-2250, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 **D'Hondt**, S., R. Pockalny, A.J. Spivack, F. Inagaki, R.W. Murray, R. Adhikari, B. Gribsholt, J. Kallmeyer, C.C. McKinley, Y. Morono, H. Røy, J. Sauvage, W. Ziebis, Oxic and anoxic regions of subseafloor sediment, Abstract PP41C-01, invited for 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Dunlea A.G., R.W. Murray, J. Sauvage, A.J. Spivack, R.N. Harris, S. **D'Hondt** and J.A. Higgins, Dust, Volcanic Ash, and the Evolution of the South Pacific Gyre through the Cenozoic, Abstract PP43A-2258, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Dzaugis, M.E., A.J. Spivack, A.G. Dunlea, R.W. Murray and S. **D'Hondt**, Radiolytic hydrogen production in the South Pacific subseafloor basaltic aquifer, Abstract V33B-3100, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Estes, E.R., C.M. Hansel, C.H. Anderson, R.W. Murray, M.D. Dyar, D. Nordlund, S.D. Wankel, D.B. Johnson, A.J. Spivack, J. Sauvage, C.C. McKinley, K.L. Homola, T.M. Present and S. **D'Hondt**, Elucidating Geochemical Controls on the Concentration and Composition of Organic Carbon in Deep Pelagic Sediments, Abstract PP43A-2251, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Fulfer, V., J.B. Kirkpatrick and S. **D'Hondt**, Human-associated fungi in deep subseafloor sediment?, Abstract PP43A-2247, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Homola, K.L., A.J. Spivack, E. Estes, T. Lado-Insua, C. McKinley, R. Murray, R. Pockalny, R. Robinson, J. Sauvage and S. **D'Hondt**, Preformed Nitrate in the Glacial North Atlantic, Abstract PP43A-2254, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Inagaki, F., K.-U. Hinrichs, S. **D'Hondt** and the IODP Expeditions 329 and 337 Scientists, Exploring frontiers of the deep biosphere through scientific ocean drilling, Taira Prize lecture, Abstract OS11C-01, invited for 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Johnson, D., E. Estes, C. Hansell, C. Anderson, R. Murray, M. Dyar, D. Nordlund, S. Wankel, A. Spivack, J. Sauvage, C. McKinley, K. Homola, T. Present and S. **D'Hondt**, Correlating organic carbon concentration and composition with mineralogy in deep-sea pelagic sediments, Abstract PP43A-225, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Kirkpatrick, J.B., E.A. Walsh, and S **D'Hondt**, Disentangling the fossil world from the deep biosphere in marine sediment, Abstract PP43A-2248, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 Sauvage, J., A.J. Spivack A.G. Dunlea, R.W. Murray and S. **D'Hondt**, Sedimentary catalysis of radiolytic H<sub>2</sub> production, and implications for subseafloor life, Abstract PP43A-2249, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.

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- 2015 Ziebis, W., B.N. Orcutt, S. Wankel, S. **D'Hondt**, R. Szubin, J.-N. Kim, C. Wei, K. Zhang and K. Zengler, Exploring Microbial Life in Oxic Sediments Underlying Oligotrophic Ocean Gyres, Abstract PP41C-03, 2015 Fall Meeting, AGU, San Francisco, Calif., 14-18 Dec.
- 2015 D'Hondt, S., G. Wang and A.J. Spivack, The Underground Economy (Energetic Constraints and Survival Strategies of Subseafloor Sedimentary Life), MICROENERGY 2015, 3rd International Workshop on Microbial Life under Extreme Energy Limitation, Sandbjerg Manor, Denmark, September 21-25, 2015.
- 2015 Kirkpatrick, J.B., E.A. Walsh, M. Sogin, R. Pockalny and S. D'Hondt, Whole Community Richness, Diversity Loss, and Selection in an Energy-Limited Deep Biosphere, MICROENERGY 2015, 3rd International Workshop on Microbial Life under Extreme Energy Limitation, Sandbjerg Manor, Denmark, September 21-25, 2015.
- 2015 Sauvage, J., A. Spivack, A. Dunlea, R. Murray and S. **D'Hondt**, Boosting the deep biosphere: subseafloor sediment a natural catalyst for radiolytic hydrogen production, MICROENERGY 2015, 3rd International Workshop on Microbial Life under Extreme Energy Limitation, Sandbjerg Manor, Denmark, September 21-25, 2015.
- 2014 **D'Hondt**, S., F. Inagaki, C. Alvarez Zarikian, Y. Morono, R. Pockalny, J. Sauvage, A.J. Spivack and the IODP Expedition 329 Shipboard Science Party, Microbial Cells and Aerobic Respiration from Seafloor to Basement in the South Pacific Gyre, Abstract B21L-08 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- 2014 **D'Hondt**, S., G Wang and A.J. Spivack, Energetic Constraints of Subseafloor Life, Abstract B11F-0102 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- 2014 Dunlea, A.G., R.W. Murray, J. Sauvage, A.J. Spivack, R.N. Harris, and S. **D'Hondt**, Paleoceanography in Pelagic Clay of the South Pacific Gyre, Abstract PP21A-1297 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- 2014 Sauvage, J., D. Graham, A.J. Spivack, A.G. Dunlea, R.W. Murray and S. **D'Hondt**, Boosting subsurface life: is subseafloor sediment a natural catalyst for radiolytic hydrogen production? Abstract B11H-0147 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- 2014 Walsh, E.A., J. Kirkpatrick, R. Pockalny, J. Sauvage, M.L. Sogin and S. **D'Hondt**, Bacterial diversity, sediment age and organic respiration in the marine sedimentary biosphere, Abstract B11H-0134 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.
- 2013 Adhikari, R.R., J Nickel, C. Glombitza, A.J. Spivack, S. **D'Hondt**, J. Kallmeyer, Distribution and activity of hydrogenase enzymes in subsurface sediments, Abstract B23G-07 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- 2013 Dunlea, A.G., R.W. Murray, J. Sauvage, A.J. Spivack, R.N. Harris, and S. **D'Hondt**, Cenozoic sedimentation rates and provenance variations in the South Pacific Gyre, Abstract PP11B-1816 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

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- 2013 Dzaugis, M.E., A.J. Spivack, A. Dunlea, R.W. Murray, K.A. Kelley and S. **D'Hondt**, Radiolytic hydrogen production in basaltic basement of the South Pacific Gyre, Abstract B13C-0486 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- 2013 Grim, S., A. Boetius, B. Briggs, W. Brazelton, S. **D'Hondt**, K. Edwards, M. Fisk, E. Gaidos, J. Gralnick, K.-U. Hinrichs, C. Lazar, H. Lavalleur, V. Marteinson, D. Moser, B. Orcutt, K. Pedersen, R. Popa, A. Ramette, M. Schrenk, J. Sylvan, A. Smith, E. Walsh, M. Sogin, F. Colwell, Abstract B22B-01 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- 2013 Kirkpatrick, J.B., A.J. Spivack, D.C. Smith and S. **D'Hondt**, Investigating uncultured microbes and their role in a deep seafloor ammonium sink, Abstract B13C-0502 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- 2013 Walsh, E.A., J.B. Kirkpatrick, M.L. Sogin, S. **D'Hondt**, Relationship of seafloor microbial diversity to sediment age and organic carbon content, Abstract B23G-03 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.
- 2013 **D'Hondt**, S., Mysteries of Subseafloor Sedimentary Life, *Mineralogical Magazine*, **77(5)** 934.
- 2013 Sauvage, J., A.J. Spivack, A. Dunlea, R.W. Murray, R. Pockalny and S. **D'Hondt**, Radiolysis and Life in Deep Subseafloor Sediment of the South Pacific Gyre, *Mineralogical Magazine*, **77(5)** 2140.
- 2012 Dunlea A.G., R.W., Murray, J. Sauvage, A.J. Spivack, R.N. Harris and S. **D'Hondt**, Geochemically tracking provenance changes in marine sediment from the South Pacific Gyre throughout the Cenozoic, Abstract PP21C-06 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- 2012 Huang, Y., A.J. Spivack, H. Røy, B. Gribsholt, W. Ziebis, R.W. Murray, J.H. Hyun and S. **D'Hondt**, The Redfield Ratio over the Past 70 Million Years, Abstract PP23F-03 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- 2012 Kallmeyer, J., R. Pockalny, R.R. Adhikari, D.C. Smith, S. **D'Hondt**, Global Distribution of Microbial Abundance and Biomass in Subseafloor Sediment, Abstract B42C-01 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- 2012 Kirkpatrick, J.B., A.J. Spivack, D.C. Smith and S. **D'Hondt**, Connections between the microbial community and a mysterious ammonium flux in seafloor sediment, Abstract B43G-0489 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- 2012 Sauvage, J., A.J. Spivack, A.G. Dunlea, R.W. Murray, D.C. Smith and S. **D'Hondt**, Radiolysis and life in deep seafloor sediment of the South Pacific Gyre, Abstract B43G-0488 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.
- 2012 Zhang, G., C.E. Smith-Duque, S. Tang, Shizhen Li, C.A. Alvarez Zarikian, S. **D'Hondt**, and F. Inagaki, A long-lived ancient subduction-induced mantle boundary within the Pacific mantle, Abstract B43G-0488 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.

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- 2012 **D'Hondt, S.**, Biological Consequences of Chicxulub impact angle, invited for Observation and Analysis of Impact Cratering and Its Effects, Invited for the G.K. Gilbert Award Session, Geological Society of America *Abstracts with Programs*, 44(7), 481.
- 2012 Colwell, F.S., and S. **D'Hondt**, The nature and extent of the deep biosphere, invited for the session: Understanding Earth through Carbon (Deep Carbon Observatory), Geological Society of America *Abstracts with Programs*, 44(7), 503.
- 2012 Dunlea, A.G., R.N. Harris, R.W. Murray, M.A. Vasilyev, H. Evans, S. **D'Hondt** and A.J. Spivack, Enhanced Calibration of a New Natural Gamma Radiation Technique for Quantifying U, Th, and K Concentrations in Marine Sediments, *Mineralogical Magazine*, 76(6) 1669.
- 2011 **D'Hondt, S.**, F. Inagaki, C.A. Alvarez Zarikian and the Integrated Ocean Drilling Program Expedition 329 Shipboard Scientific Party. A deep oxic ecosystem in the subseafloor South Pacific Gyre [presented at the 2011 American Geophysical Union Fall Meeting, San Francisco, CA, 5–9 December 2011] (Abstract B44B-03), <http://www.agu.org/meetings/fm11/waisfm11.html>
- 2011 Lado Insua, T., Spivack, A.J., **D'Hondt, S.L.**, Graham, D., Moran, K., the Expedition Knorr 195 (III) Shipboard Scientific Party, and the Integrated Ocean Drilling Program Expedition 329 Shipboard Scientific Party. Reconstruction of Pacific bottom water salinity during the Last Glacial Maximum [presented at the 2011 American Geophysical Union Fall Meeting, San Francisco, CA, 5–9 December 2011] (Abstract PP11B-1791), <http://www.agu.org/meetings/fm11/waisfm11.html>
- 2011 Morono, Y., Kallmeyer, J., Terada, T., Inagaki, F., and the IODP Expedition 329 Shipboard Science Party, 2011. An improved method for high-throughput discrimination and enumeration of sedimentary cells using flow cytometry [presented at the 2011 American Geophysical Union Fall Meeting, San Francisco, CA, 5–9 December 2011] (Abstract B44B-04), <http://www.agu.org/meetings/fm11/waisfm11.html>
- 2011 Røy, H., J. Kallmeyer, R.R. Adhikari, B. Gribsholt, B.B. Jørgensen and **D'Hondt**. Aerobic microbial respiration in ancient oxic sediments below the Subtropical Gyres. *Geophysical Research Abstracts* 13, EGU2011-8714, EGU General Assembly, Vienna
- 2011 Sauvage, J.F., Spivack, A.J., **D'Hondt, S.L.**, and the Integrated Ocean Drilling Program Expedition 329 Shipboard Scientific Party. Use of pore-water composition to reconstruct past dissolved inorganic carbon concentration and alkalinity in Pacific bottom water [presented at the 2011 American Geophysical Union Fall Meeting, San Francisco, CA, 5–9 December 2011] (Abstract PP31B-1858), <http://www.agu.org/meetings/fm11/waisfm11.html>
- 2011 Walsh, E., S.L. **D'Hondt**, D.C. Smith and M.L. Sogin, Assessing biogeographic patterns in bacterial community structures from sea-surface to sub-seafloor from three Pacific Ocean stations, *Eos, Trans. Am. Geophys. Union Fall meet. Suppl.* Abstract B51K-0558.
- 2010 Wehrmann, L.M., N. Risgaard-Petersen, H.N. Schrum, E. Walsh, S.L. **D'Hondt**, B. Brunner, T.G. Ferdelman, Y. Huh, M. Ikehara, C. Ravelo, K. Takahashi and C.A. Alvarez Zarikian, Carbon and sulfur biogeochemistry of the Bering Sea: initial results from IODP Expedition 323. *Eos, Trans. AGU* 91(26), Fall Meet. Suppl., Abstract B34A-05, <http://www.agu.org/meetings/os10/waisos10.html>

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- 2009 Brunner, B., A.J. Spivack, R.W. Murray, B. Gribsholt, D. Graham, H.N. Schrum, S.L. **D'Hondt**, Sulfur and Oxygen Isotope Composition of Pore Water Sulfate in the Eastern Equatorial Pacific, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract B13D-0553.
- 2009 **D'Hondt**, S.L., R.A. Pockalny, A.J. Spivack, R.W. Murray, H. Røy, J. Kallmeyer, H.N. Schrum, B. Brunner, B. Gribsholt, D. Graham, The Global Distribution of Organic-Fueled Respiration in Subseafloor Sediment, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract B22A-07.
- 2009 Kallmeyer, J., R.A. Pockalny, S.L. **D'Hondt**, R.R. Adhikari, A New Estimate of Total Microbial Subseafloor Biomass, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract B23C-0381.
- 2009 Manning, C., R.A. Pockalny, S.L. **D'Hondt**, The Lasting Impacts of an Oceanographic Teacher Research Experiences in a Land-locked Classroom, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract ED34A-01.
- 2009 Robinson, R.S., H.N. Schrum, A.J. Spivack, J. Brockman, S.L. **D'Hondt**, Reconstructing the isotopic composition of deep ocean nitrate using sedimentary porefluids from the South Pacific Gyre: *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract OS43B-1404.
- 2009 Schrum, H.N., A.J. Spivack, M. Kastner, S.L. **D'Hondt**, Sulfate-Reducing Ammonium Oxidation: A Thermodynamically Feasible Metabolic Pathway in Subseafloor Sediment, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract B23C-0383.
- 2009 Spivack, A.J., H. Røy, B. Brunner, D. Graham, B. Gribsholt, R.W. Murray, H.N. Schrum, S.L. **D'Hondt**, Direct Determination of Deep Ocean Nitrate During the Last Glacial Maximum, *Eos Trans. AGU*, 90(52), Fall Meet. Suppl., Abstract OS43B-1407.
- 2009 Durbin, A.M., J. Biddle, A. Martino, C. House, J. Fischer, A. Spivack, H. Schrum, S. **D'Hondt** and A. Teske, Microbial community stratification in TOC-depleted marine subsurface sediments of the Pacific Ocean, Goldschmidt Conference Abstracts, *Geochimica et Cosmochimica Acta*, 73(13) Supplement 316.
- 2009 Kallmeyer, J., R. Pockalny and S. **D'Hondt**, Quantifying global subseafloor microbial abundance: method and implications, Goldschmidt Conference Abstracts, *Geochimica et Cosmochimica Acta*, 73(13) Supplement 615.
- 2009 Biddle, J.F., S.M. Huse, M.L. Sogin, S. **D'Hondt**, A.P. Teske, Deep marine subsurface sediments: Bacterial and archaeal diversity and habitat preference, ICoMM.
- 2009 **D'Hondt**, S., D.C. Smith and M. Sogin, Bacterial and archaeal community composition in the deep chlorophyll maximum of the South Pacific gyre, ICoMM.
- 2008 **D'Hondt**, S., A. Spivack, R. Pockalny, T. Ferdeman, J. Fischer, J. Kallmeyer, Patterns of Respiration and Sources of Electron Donors in Subseafloor Sediment, *Eos Trans. AGU* 89(53), Fall Meet. Suppl., Abstract B51F-06.
- 2008 Pockalny, R. A., J. Kallmeyer, S. **D'Hondt**, Quantifying Global Subseafloor Microbial Abundance: Method and Implications, *Eos Trans. AGU* 89(53), Fall

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- Meet. Suppl., Abstract B51F-07.
- 2007 **D'Hondt, S.**, L. Abrams, T. Ferdelman, J. Fischer, F. Hasiuk, J. Kallmeyer, R. Pockalny, H. Schrum, D.C. Smith, A. Spivack, A. Stancin and the Knox-02RR Shipboard Science Party, Life in Subseafloor Sediments of the South Pacific Gyre, *Eos Trans. AGU* 88(52), Fall Meet. Suppl., Abstract B52A-08.
- 2007 **D'Hondt, S.**, A. J. Spivack and G. Wang, Maintenance Energy in Deep Ocean Sediments, International Workshop on Microbial Life under Extreme Energy Limitations "The Starving Majority", University of Aarhus, Denmark, October 21-24, *Program, Abstracts and Information*, 14.
- 2007 Fischer, J.P., T. Ferdelman, S. **D'Hondt**, F. Wenzhöfer and Knox-02RR Shipboard Scientific Party, Deep oxygen penetration in ultra-oligotrophic South Pacific sediments, International Workshop on Microbial Life under Extreme Energy Limitations "The Starving Majority", University of Aarhus, Denmark, October 21-24, *Program, Abstracts and Information*, 18.
- 2007 Kallmeyer, J., R. Pockalny, S. **D'Hondt** and Knox-02RR Shipboard Scientific Party, Cell enumeration in extremely nutrient-poor sediments, International Workshop on Microbial Life under Extreme Energy Limitations "The Starving Majority", University of Aarhus, Denmark, October 21-24, *Program, Abstracts and Information*, 29.
- 2007 Fischer, J.P., T. Ferdelman, S. **D'Hondt**, F. Wenzhoefer, and Knox-02RR Shipboard Scientific Party, Extreme oligotrophy in subsurface sediments of the South Pacific Gyre: Evidence from low oxygen fluxes, *Geochimica et Cosmochimica Acta* 71 (15), A281, Suppl. S.
- 2007 Kallmeyer, J., S. **D'Hondt**, and Knox-02RR Shipboard Scientific Party, Cell enumeration in extremely nutrient-poor sediments, *Geochimica et Cosmochimica Acta* 71 (15): A460, Suppl. S.
- 2007 Forschner, S.R., R.G. Sheffer, D.C. Smith, S. **D'Hondt**, and D.C. Rowley. Marine Actinomycece Biodiversity in Subsurface Sediments of the South Pacific Gyre. Abstract P-027M, American Society of Pharmacognosy 48th Annual Meeting, Portland, Me, July 14-18, 2007.
- 2006 **D'Hondt, S.**, A.J. Spivack and G. Wang, Rates and global biogeochemical consequences of microbial activity in subseafloor sediments, *Geological Society of America Annual Meeting, Abstr. Prog.*, 38 (7), 390.
- 2006 Blair, C., S. **D'Hondt**, A.J. Spivack and R.H. Kingsley, Radiolytic Hydrogen and Microbial Respiration in a Deep Sea Sediment Column, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 198.
- 2006 **D'Hondt, S.**, L.J. Abrams, R.A. Pockalny, A.J. Spivack and A.P. Teske, Subseafloor Exploration in the Central South Pacific, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 201.
- 2006 Grymes, R., H. Ohmoto, R. Buick, A. Anbar, R. Summons and S. **D'Hondt**, The Astrobiology Drilling Program: recent reportable results, submitted for European Geosciences Union meeting.
- 2006 Grymes, R., H. Ohmoto, R. Buick, A. Anbar, R. Summons and S. **D'Hondt**, The Astrobiology Drilling Program: Update, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 238.

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- 2006 Kallmeyer, J., R. Anderson, D.C. Smith, A.J. Spivack and S. **D'Hondt**, Separation of microbial cells from deep sediments, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 271.
- 2006 Riccardi, A., M.A. Arthur, L.R. Kump and S. **D'Hondt**, Sulfur Isotopic Evidence for Chemocline Upward Excursions During the End-Permian Mass Extinction, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 120.
- 2006 Smith, S., D.C., Forschner, D.C. Rowley and S. **D'Hondt**, The Sedimentary Environment Below Earth's Polar Ice Cap as a Microbial Habitat, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 280.
- 2006 Soffientino, B., A.J. Spivack, D.C. Smith, S. **D'Hondt** and IODP Leg 307 Shipboard Party, Hydrogenase activity as an indicator of microbial activity in deeply buried marine sediments, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 235.
- 2006 Spivack, A.J., G. Wang and S. **D'Hondt**, Energetics of a Subsurface Ecosystem, AbSciCon 2006, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 162.
- 2006 Wang, G., A.J. Spivack and S. **D'Hondt**, Identification of respiration pathways in deep seafloor sediments using a CO<sub>2</sub> mass-balance model, NASA Astrobiology Institute Biennial Meeting 2006, *Astrobiology*, 6 (1), 230.
- 2005 **D'Hondt**, S., A.J. Spivack, G. Wang, and the ODP Leg 201 Shipboard Scientific Party, Microbial Activities in Deep Subseafloor Sediments, ISEA...
- 2005 **D'Hondt**, S., A.J. Spivack, G. Wang, and ODP Leg 201 Shipboard Scientific Party, Distributions of microbial activities in deep subseafloor sediments, Geological Society of America *Abstracts with Programs*, Vol. 37, No. 7, p. X.
- 2005 Soffientino, B., A.J. Spivack, D.C. Smith, and S. **D'Hondt**, Hydrogenase activity as an indicator of microbial activity and as a proxy of microbial community metabolism in anaerobic environments, Geological Society of America *Abstracts with Programs*, Vol. 37, No. 7, p. X.
- 2005 Riccardi, A., M.A. Arthur, L.R. Kump and S. **D'Hondt**, Changes to the carbon and sulfur cycles during the end-Permian mass extinction, Geological Society of America *Abstracts with Programs*, p. X.
- 2005 Blair, C., S. **D'Hondt**, and A.J. Spivack. Assessment of radiolytic hydrogen as an energy source for life in subseafloor sediments. NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 250.
- 2005 **D'Hondt**, S. How does life interact with its environment? NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 241.
- 2005 Kallmeyer, J., S. **D'Hondt**, and A.J. Spivack. Separation of prokaryotic cells from deep sediments. NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 257.
- 2005 Pockalny, R.A., and S. **D'Hondt**. Adaptation of existing NSF-Funded REU Programs to include Astrobiology undergraduate research. NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 238.
- 2005 Riccardi, A., M.A. Arthur, L.R. Kump and S. **D'Hondt**. Perturbations to the



- chemocline of the ocean during the end-Permian mass extinction. NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 293.
- 2005 Soffientino, B., A.J. Spivack, D.C. Smith, and S.L. **D'Hondt**. Hydrogenase activity as a proxy for hydrogen metabolism in deeply buried sediments and as a diagnostic test for life. NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 295.
- 2005 Wang, G., A.J. Spivack, and S. **D'Hondt**. Co-occurrence of methanogenesis, sulfate reduction, and iron reduction in deep-sea sediments. NASA Astrobiology Institute Biennial Meeting 2005, *Astrobiology*, 5 (2), 272.
- 2004 Bada, J.L., B. Clark, P. Ehrenfreund, R.A. Mathies, F. Grunthaner, R. Quinn, S. Ride, D. Glavin, M. Wadhwa, S. **D'Hondt**, M. Hecht and A Zent, The Mars Astrobiology Probe: A proposed instrument suite for the 2009 Mars Science Laboratory (MSL). *Mars Astrobiology Science and Technology Workshop*, 8-10 September 2004, Carnegie Institution of Washington, Washington, DC
- 2004 **D'Hondt**, S., A. Lauer, K. Sørensen, A. Spivack, A. Teske and G. Wang, Drilling For Clues To Extant Life. Abstracts from the 2004 Astrobiology Science, NASA Ames Research Center, Moffett Field, CA, USA, *International Journal of Astrobiology*, Supplement, 2004: 15, DOI: 10.1017/S14735500404001648.
- 2004 Manor, U., S. Rutherford, G. Wang, S. **D'Hondt** and A.J. Spivack. An Improved Numerical Model For Determining Reaction Rates In A Subsurface Biosphere, Abstracts from the 2004 Astrobiology Science, NASA Ames Research Center, Moffett Field, CA, USA, *International Journal of Astrobiology*, Supplement, 2004: 44, DOI: 10.1017/S14735500404001648.
- 2004 Riccardi, A.L., M.A. Arthur, L.R. Kump and S. **D'Hondt**. Perturbations to the Carbon and Sulfur Cycle During the Permian Triassic Boundary Event in Southern China, *EOS Trans. AGU* **85(47)**, Fall Meeting Suppl., Abstract PP41A-0581.
- 2004 Soffientino, B., A.J. Spivack, D.C. Smith and S.L. **D'Hondt**. A Method For Estimating Low Levels Of Hydrogen Metabolism In Deeply Buried Sediments, Abstracts from the 2004 Astrobiology Science, NASA Ames Research Center, Moffett Field, CA, USA, *International Journal of Astrobiology*, Supplement, 2004: 58, DOI: 10.1017/S14735500404001648.
- 2004 Wang, G. A.J. Spivack, S. **D'Hondt**, S. Rutherford and U. Manor. Metabolic Activity In Deep-sea Sediment Columns, Abstracts from the 2004 Astrobiology Science, NASA Ames Research Center, Moffett Field, CA, USA, *International Journal of Astrobiology*, Supplement, 2004: 70, DOI: 10.1017/S14735500404001648.
- 2003 Inagaki, F., M. Suzuki, K.H. Nealson, K. Honikoshi, S. **D'Hondt** and B.B. Jørgensen. Subseafloor Microbial Diversity in the Peru Margin (ODP Leg 201), *Thirteenth Annual V. M. Goldschmidt Conference, Geochimica et Cosmochimica Acta*. 67(18), A171, Suppl,1 September 2003.
- 2003 **D'Hondt**, S., B.B. Jørgensen, and ODP Leg 201 Shipboard Scientific Party, Respiration in Deeply Buried Marine Sediments (Early Results from ODP Leg 201), *Abstracts, NASA Astrobiology Institute General Meeting*, 227.
- 2003 Rutherford, S., S. **D'Hondt**, and A.J. Spivack, Global Rates of Sulfate Reduction in Deeply-Buried Marine Sediments, *Abstracts, NASA Astrobiology Institute General Meeting*, 335.

STEVEN L. D'HONDT

- 2003 Wang, G., S. Rutherford, S. **D'Hondt**, A.J. Spivack, and ODP Leg 201 Shipboard Scientific Party, Distribution of Metabolic Activity Within a Deep-Sea Sediment Column, *Abstracts, NASA Astrobiology Institute General Meeting*, 348.
- 2002 **D'Hondt**, S., B.B. Jørgensen, R. Blake, G. Dickens, K. Hinrichs, N. Holm, R. Mitterer, A. Spivack, and ODP Leg 201 Shipboard Scientific Party, Microbial Activity in the Subseafloor Sediments of ODP Leg 201, *Supplement to Eos, Transactions, American Geophysical Union* 83 (47), F237.
- 2002 Jørgensen, B.B., **D'Hondt**, S., Miller, J., Blake, B., Cragg, G., Dickens, T., Hinrichs, K.-U., Holm, N., Mitterer, R.J., Parkes, R.J., Spivack, A.J. and ODP Leg 201 Shipboard Scientific Party, Subseafloor biosphere, *International Symposium on Subsurface Microbiology*, Copenhagen, Denmark.
- 2002 **D'Hondt**, S., B.B. Jørgensen, R. Blake, G. Dickens, K. Hinrichs, N. Holm, R. Mitterer, A. Spivack, and ODP Leg 201 Shipboard Scientific Party, Microbial Activity in Deeply Buried Marine Sediments. *Twelfth Annual V. M. Goldschmidt Conference, Geochimica et Cosmochimica Acta* 66 (15A), A163.
- 2001 **D'Hondt**, S., S. Rutherford, and A.J. Spivack. Catabolic activity of the subsurface biosphere in deep-sea sediments, *Geological Society of America Annual Meeting, Abstr. Prog.*, 33 (6), 296.
- 2000 **D'Hondt**, S., S. Rutherford, and A. Spivack, Global Patterns of Microbial Activity in Deep-Sea Sediments, *Supplement to Eos, Transactions, American Geophysical Union* 81 (48), F236.
- 2000 **D'Hondt**, S., J.C. Zachos, S. Bowring, G. Hoke, M. Martin, D. Erwin, Y. Jin, W. Wang, C. Cao, and Y. Wang, Permo/Triassic Events and the Carbon Isotope Record of Meishan, China, *Geological Society of America Annual Meeting, Abstr. Prog.*, 32 (7), A368.
- 2000 **D'Hondt**, S., and J.C. Zachos. Carbon isotopic studies of mass extinctions and recoveries, *Catastrophic Events and Mass Extinctions: Impacts and Beyond*, LPI Contribution 1053, 36.
- 1999 **D'Hondt**, S., Marine biological consequences of the Chicxulub impact, invited for *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 31, A241.
- 1999 Rutherford, S., S. **D'Hondt**, and W. Prell, The geographic distribution of zooplankton diversity, *Sepkoski Memorial Symposium, Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 31, A399.
- 1999 **D'Hondt**, S. Carbon isotope records and extinction-triggered ecological collapse, *Ninth Annual V. M. Goldschmidt Conference*, LPI Contribution 972, 71.
- 1998 **D'Hondt**, S., and M.A. Arthur. Getting into deep water in the late Maastrichtian ocean, *Eos, Transactions, American Geophysical Union*, 79 (17), S170.
- 1998 **D'Hondt**, S., J. King, B. Galbrun, and T.J. Bralower. Recovery of carbonate accumulation after the Cretaceous/Paleogene impact, *Eos, Transactions, American Geophysical Union*, 79 (17), S172.
- 1998 Epstein, B., S. **D'Hondt**, J.G. Quinn, T. Herbert, J. Schuffert and P. Hargraves. The response of  $U^{K'}_{37}$  values to non-thermal factors in several *E. huxleyi* clones, *Eos, Transactions, American Geophysical Union*, 79 (17), S180.

- 1998 Rutherford, S.D., and S. **D'Hondt**. Propagation from the tropics to the high latitude North Atlantic of a linear response to orbital forcing at 1.6 Ma, *Eos, Transactions, American Geophysical Union*, 79 (17), S170.
- 1998 Wara, M.W., A.C. Ravelo, S.D. Rutherford and S. **D'Hondt**, Sub-Milankovitch variability in the North Atlantic: A pervasive feature of Pleistocene climate, *EOS Trans. AGU*, 79.
- 1998 Wara, M. W., A.C. Ravelo, S.D. Rutherford, S. **D'Hondt**, and W.C. Chaisson. Sub-Milankovitch climate variability in the North Atlantic: A Plio-Pleistocene comparison, *International Conference on Paleoceanography*.
- 1997 **D'Hondt**, S., and J. King. Evolutionary radiation and oceanic recovery after the Cretaceous/Tertiary impact, *Eos, Transactions, American Geophysical Union*, 78 (46), S178.
- 1997 Louvel, V., D. Dollfus, L. Beaufort, L.J. Abrams, and S.L. **D'Hondt**. Evolution of paleoclimatic cyclicity during the Tertiary using high-resolution resistivity logging data, *European Union of Geosciences*.
- 1996 Abrams, L.J., V. Louvel, S. Carey, S. **D'Hondt**, J. King, and H. Sigurdsson. Downhole measurements from ODP Leg 165 in the Caribbean Sea: application to the K/T boundary impact and chronostratigraphy, *Eos, Transactions, American Geophysical Union*, 77 (46), F311.
- 1996 Epstein, B.L., S.L. **D'Hondt**, J.G. Quinn, J. Zhang, and P.E. Hargraves. Experimental dependence of alkenone unsaturation values on non-thermal properties, *Eos, Transactions, American Geophysical Union*, 77 (46), F409-F410.
- 1996 Leckie, R.M., Sigurdsson, H., Acton, G., and ODP Leg 165 Shipboard Scientific Party, 1996. Paleoceanography of the Caribbean Sea: Preliminary Results from ODP Leg 165, *Eos, Transactions, American Geophysical Union*, 77 (17), S163.
- 1996 Rutherford, S.D., and S. **D'Hondt**. Re-evaluating latitudinal gradients in planktic foraminiferal diversity, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 28, A297.
- 1995 **D'Hondt**, S., and P. Donaghay. Carbon isotopic recovery from mass extinctions: no Strangelove oceans on geologic timescales?, invited for *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 27, A164.
- 1995 **D'Hondt**, S., and J.C. Zachos. 75 million years of photosymbiosis in planktic foraminifera, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 27, A244.
- 1995 Leckie, R.M., Sigurdsson, H., Droxler, A.W., Peterson, L.C., Carey, S., and **D'Hondt**, S. 90 million years of ocean and climate history: Ocean drilling returns to the Caribbean, *Third Geol. Conf. of the Geol. Soc. of Trinidad and Tobago, and 14th Carib. Geol. Conf.*, Port of Spain, Trinidad, *Abstracts*, 44-45.
- 1995 Luttenberg, D., S. **D'Hondt**, J.C. Zachos, and M. Lindinger. Carbon isotopic recovery from the Cretaceous-Tertiary boundary event, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 27, A266.
- 1995 Schultz, P.H., and S. **D'Hondt**. The Chicxulub impact angle and its consequences, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 27, A349.
- 1995 Sigurdsson, H., S. **D'Hondt**, S. Carey, J.M. Espindola, and J.L. Macias. Geochemistry of the Cretaceous/Tertiary impact ejecta deposit in Mexico and

STEVEN L. D'HONDT

- Belize, *26th Ann. Lunar and Planet. Sci. Conf. Abstr.*, Lunar and Planetary Institute, 1301-1302.
- 1994 **D'Hondt, S.** Theories of terrestrial mass extinction by extraterrestrial objects (a historical perspective), invited for the GSA History of Geology Division Symposium, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 26, 7, A282.
- 1994 **D'Hondt, S.L., M.A. Arthur, and P. Fawcett.** The Structure of Late Cretaceous Oceans, *EOS, Transactions, Amer. Geophys. Union*, 75 (44), 386.
- 1994 **D'Hondt, S., J. King, and T.D. Herbert.** Asteroids and planktic foraminifera; death and recovery at the Cretaceous-Tertiary boundary, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 26, 7, A394.
- 1994 **D'Hondt, S., H. Sigurdsson, A. Hanson, S. Carey, and M. Pilson.** Sulfate volatilization, surfacewater acidification, and extinction at the Cretaceous-Tertiary boundary, *New Developments Regarding the KT Event and Other Catastrophes in Earth History*, LPI Contribution 825, 29-30.
- 1994 **D'Hondt, S., D. Whitaker, M. Arthur, J. King, C. Gibson, T. Herbert, and J. Park.** Milankovitch-scale climate variability in the Late Cretaceous, invited for *Cushman Foundation Symposium, Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 26, 7, A95.
- 1994 Herbert, T.D., A.G. Fischer, and S.L. **D'Hondt.** Cyclochronologic approaches to the K/T event, *New Developments Regarding the KT Event and Other Catastrophes in Earth History*, LPI Contribution 825, 47.
- 1994 Herbert, T.D., S.L. **D'Hondt,** and J. Park. Cyclic sedimentation in Cretaceous pelagic sediments, *Annual Meeting Abstracts, American Association of Petroleum Geologists and Society of Economic Paleontologist and Mineralogists*, 1994, p.169.
- 1994 Herbert, T.D., I. Premoli Silva, E. Erba, and S.L. **D'Hondt.** Cyclostratigraphy—is it ready to do something useful?, *Annual Meeting Abstracts, American Association of Petroleum Geologists and Society of Economic Paleontologist and Mineralogists*, 1994, p. 170.
- 1994 Sigurdsson, H., S. **D'Hondt,** S. Carey, and R. Turco. Impact extinction mechanisms: geochemistry of the target material, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 26, 7, A333.
- 1994 Sigurdsson, H., S. Smith, S. **D'Hondt,** S. Carey, and J.-M. Espindola. Crystals, lithics and glassy ejecta at the K/T boundary: implications for lithology of the crust at the impact site, *New Developments Regarding the KT Event and Other Catastrophes in Earth History*, LPI Contribution 825, 114-115.
- 1993 **D'Hondt, S., and J.C. Zachos.** Stable isotopic signals and the evolutionary radiation of earliest Paleocene planktic foraminifera, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 25, A359.
- 1993 **D'Hondt, S., J.C. Zachos, and G. Schultz.** Stable isotopes and photosymbiosis in late Paleocene planktic foraminifera, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 25, A130.
- 1993 **D'Hondt, S., H. Sigurdsson, S. Carey, A. Hanson, and P. Donaghay.** The impact generation and environmental effects of sulfuric acid aerosol at the Cretaceous-Tertiary boundary, invited for SEPM, *Stratigraphic Record of Global Change*.

STEVEN L. D'HONDT

- 1993 Carey, S., H. Sigurdsson, S. **D'Hondt**, and J. M. Espindola. Stratigraphy and sedimentology of the K/T boundary deposit in Haiti, *24th Ann. Lunar and Planet. Sci. Conf. Abstr.*, Lunar and Planetary Institute, 251-252.
- 1993 Carey, S., H. Sigurdsson, S. **D'Hondt**, S. Smith, and J.-M. Espindola. Depositional processes of the K/T boundary impact deposit in Beloc, Haiti, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 25, A296.
- 1993 Herbert, T.D., S.L. **D'Hondt**, A.G. Fischer, J. Park, I. Premoli Silva, and E. Erba. Orbital chronometry of Cretaceous and early Paleogene strata, *Annual Meeting Abstracts, American Association of Petroleum Geologists and Society of Economic Paleontologist and Mineralogists*, April 25-28, 1993, p. 117-118.
- 1993 Park, J., S. **D'Hondt**, J.W. King and C. Gibson. Late Cretaceous precessional cycles in double time: A warm-earth Milankovitch response, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 25, A386.
- 1992 **D'Hondt**, S. The definition and macroevolutionary study of planktic foraminiferal higher taxa. Invited for the Fifth North American Paleontological Convention, *Paleontology Society Special Publication 6*, 133.
- 1992 **D'Hondt**, S.L., and M.A. Arthur. Inter-species variation in stable isotope signals of Maestrichtian planktic foraminifera. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 24, A90.
- 1992 **D'Hondt**, S., and T.D. Herbert. Precessional chronostratigraphy of the Cretaceous-Tertiary boundary. Invited for the 29th International Geological Congress, *29th IGC abstracts*, v 2, 244.
- 1992 **D'Hondt**, S.L., J.W. King, C. Gibson, and J. Park. The evolution of Late Cretaceous climatic cycles at South Atlantic DSDP Site 516F, *EOS, Transactions, Amer. Geophys. Union*, 73 (43), 271.
- 1992 **D'Hondt**, S.L., J.W. King, C. Gibson, J. Park, and T.D. Herbert. Precessional cycles and Late Cretaceous chronostratigraphy at South Atlantic DSDP Site 516F. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 24, A110.
- 1992 Park, J., S.L. **D'Hondt**, J.W. King, and C. Gibson. Late Cretaceous precessional cycles in double time: evidence from South Atlantic DSDP Site 516F, *EOS, Transactions, Amer. Geophys. Union*, 73 (43), 99.
- 1992 Sigurdsson, H., S. **D'Hondt** and S. Carey. The impact of the Cretaceous/Tertiary bolide on evaporite terrane and generation of a major sulfuric acid aerosol. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 24, A355.
- 1992 Whitaker, D.E., S.L. **D'Hondt**, J.W. King, T.D. Herbert, and M.A. Arthur. The sedimentary expression of Late Cretaceous precessional cycles at South Atlantic DSDP Sites 527 and 525A. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 24, A90.
- 1991 **D'Hondt**, S., and T. D. Herbert. Marking time at the South Atlantic Cretaceous-Tertiary boundary. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 23, A179.
- 1991 **D'Hondt**, S., and J.C. Zachos. Interpreting stable isotope signals in earliest Paleocene planktonic foraminifera. *EOS (Trans. Am. Geophys. Union)*, 72 (17), 152.
- 1991 **D'Hondt**, S., T.J. Bralower, M. van Fossen, J.E.T.Channell, J.C. Zachos, M.A. Arthur, and H. Sigurdsson. Stratigraphy of the Beloc, Haiti, Cretaceous-Tertiary

STEVEN L. D'HONDT

- boundary sequence. *22nd Ann. Lunar and Planet. Sci. Conf. Abstr.*, Lunar and Planetary Institute, 317.
- 1991 Hall, F.R., J.W. King, S. **D'Hondt**, and A.E. Aksu. The relationships between rock-magnetic parameters, provenance and glacial cycling of sediments from the Fogo Seamounts. *EOS (Trans. Am. Geophys. Union)*, 72 (44), 142-143.
- 1991 Oskarsson, N., M. Steinberg, Ph. Pradel, O. Helgason, H. Sigurdsson, and S. **D'Hondt**. Oxygen isotope variation, Mössbauer spectra of iron oxidation and volatile content of tektite glasses from the Cretaceous-Tertiary boundary, Haiti. *22nd Ann. Lun. and Planet. Sci. Conf. Abstr.*, Lunar and Planetary Institute, 1009.
- 1991 Sigurdsson, H., S. **D'Hondt**, M.A. Arthur, T.J. Bralower, J.C. Zachos, M. van Fossen, and J.E.T. Channell. Tektite glass from the Cretaceous-Tertiary boundary in Haiti. *22nd Ann. Lunar and Planet. Sci. Conf. Abstr.*, Lunar and Planetary Institute, 1259-1260.
- 1989 **D'Hondt**, S., G. Keller and N. MacLeod. Phylogenetic and stratigraphic analysis of earliest Paleocene planktic foraminifera. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 21, A63.
- 1988 **D'Hondt**, S., and M. Lindinger. An extended Cretaceous-Tertiary boundary stable isotope record: implications for paleoclimate and the nature of the K/T boundary event. Lunar and Planetary Institute *Global Catastrophes in Earth History*, 40-41.
- 1988 **D'Hondt**, S., and G. Keller. Global fluctuations in earliest Paleocene foraminiferal populations. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 20, A371.
- 1988 Herbert, T., and S. **D'Hondt**. High resolution chronology of Late Cretaceous - Early Tertiary events determined from 21,000 yr orbital-climatic cycles in marine sediments. Lunar and Planetary Institute *Global Catastrophes in Earth History*, 74.
- 1987 **D'Hondt**, S., and G. Keller. Patterns of evolution in some earliest Paleocene lineages of planktonic foraminifera. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 19, 639.
- 1987 Carpenter, M., S. **D'Hondt**, G. Keller, M. Lindinger, C.D. Perry, C. Ryan, and M. Borcsik. Geochemical Analyses (Ca, Cd, Ni, Mn, Sr) of benthic foraminifera from the Cretaceous-Tertiary boundary, Brazos River, Texas and El Kef, Tunisia. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.* v. 19, 611.
- 1987 Herbert, T.D., S. **D'Hondt**, and J. Park. Orbital signatures in Cretaceous deep sea sediments: application to quantitative paleoclimatology. European Union of Geosciences IV, abstracts, *Terra Cognita*.
- 1987 Herbert, T.D., S. **D'Hondt**, and G. Keller. Milankovich cycles in late Maastrichtian DSDP sites, South Atlantic. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 19, 700.
- 1986 Keller, G., S.L. **D'Hondt**, E. Molina, C.J. Orth, J.S. Gilmore, P.Q. Oliver, and E.M. Shoemaker. Late Eocene impact microspherules: stratigraphy, age, and geochemistry. *EOS (Trans. Am. Geophys. Union)*, 67(44), 1044.

## STEVEN L. D'HONDT

- 1985            **D'Hondt, S.L.**, and G. Keller. Stepwise mass extinctions at the Cretaceous-Tertiary boundary: planktonic foraminifera. *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 17, 537.
- 1985            Keller, G., W.R. Chi, S. **D'Hondt**, R. Dorsey, T. Herbert, and M. Johnsson. Global sedimentation and distribution of deep-sea hiatuses: late Eocene-Oligocene, *Geol. Soc. Am. Ann. Meeting, Abstr. Prog.*, 17, 625.

### Teaching Experience

#### Graduate Advising

Below, I list my previous graduate advisees. Each listing includes name, years that I mentored them, their present position, and, in parentheses, their gender (female = F, male = M).

#### *As primary graduate advisor—*

Victoria Fulfer, M.S. candidate (F).  
Zak Kerrigan, Ph.D. candidate (M).  
Justine Sauvage, 2013 M.S., 2018 Ph.D., Postdoctoral Scholar, University of Gothenburg, Sweden (F).  
Mary Dzaugis, 2016 Ph.D., Senior Program Manager, Professional Development at Museum of Science, Boston (F).  
Emily Walsh, 2014 Ph.D., Scientist – Molecular Technologies, Seres Therapeutics (Boston) (F).  
Carly Blair, M.S., 2007 M.S., Content Manager, Nouryon (Amsterdam) (F).  
Bonnie Epstein, 1999 Ph.D., Founder & Acting Executive Director, Rhode Island Museum of Science & Art; Faculty, Rhode Island School of Design (F).  
Scott Rutherford, 1999 Ph.D., Professor, Roger Williams University (M).  
Danielle (Luttenberg) Meitiv, 1997 M.S., National Consultant for Climate Solutions (F).  
Dania Whitaker, 1996 M.S., Lecturer, Bryant University (F).

#### *As primary funder and graduate committee member—*

Yiya Huang, 2013 M.S. (A.J. Spivack was primary graduate advisor), Administrative Secretary, Xiamen University (F).  
Heather (Schrum) Burton, 2010 Ph.D. (A.J. Spivack was primary graduate advisor), Associate Professor, Massachusetts Maritime Academy (F).  
Guizhi Wang, 2007 Ph.D (A.J. Spivack was primary graduate advisor), Associate Professor, Xiamen University (F).

#### *As graduate committee member—*

I have been a graduate committee member for many biological, geological and chemical oceanography Ph.D. and M.S. students in the URI Graduate School of Oceanography, three M.S. students and one Ph.D. student in the URI Geology Department, and one Ph.D. student in the Department of Geology at the University of Delaware. I have also been an external examiner for Ph.D. students in the Brown University Department of Geological Sciences.

#### *As Rhode Island Space Grant Affiliate Director for URI GSO—*

From 2000-2005, I oversaw the fellowship progress of RI Space Grant / Vetlesen GSO Graduate Fellows (selected from a GSO-wide competition in cooperation with a representative of the GSO Vetlesen Program). Fellows included Whitley Saumweber, Ph.D. 2005 (2001/2002 Fellow), Deanna Bergondo, Ph.D. 2004 (2002/2003 Fellow), Kimberly Whitman Hyde, Ph.D. 2006 (2003/2004 Fellow), and Colleen Mouw, Ph.D. 2009 (2004/2005 Fellow).

## STEVEN L. D'HONDT

### *As Expedition Leader—*

I typically invite 10 to 16 graduate students, undergraduates and postdoctoral scholars from several institutions to participate in the shipboard science parties of the expeditions that I lead. The experience introduces them to expedition-based science and provides many of the graduate students and postdocs with publishable research projects. It also provides most of them with their first experience of a large team-based research program and all of them with co-authorship of the expedition's principal results.

### Undergraduate Advising

The URI Graduate School of Oceanography (GSO) has no undergraduate majors and a small number of undergraduate courses. URI expectations for GSO faculty are largely limited to research productivity and graduate teaching. However, because I enjoy and learn from undergraduate contact, I consistently engage undergraduates in my research and teaching program. I teach an undergraduate course every year, I include undergraduates in my laboratory research projects, and, when possible, I bring multiple undergraduates on my expeditions.

Below, I list individuals who worked directly in my laboratory as undergraduates or who were funded by one of my grants to work as an undergraduate in a URI laboratory. Each listing provides name, years that I mentored the student, their primary undergraduate institution, their highest attained degree known to me, their present position (if known to me), and, in parentheses, their gender (female = F, male = M) and under-represented group membership (if known to me).

#### *URI undergraduates who worked on laboratory projects with me include:*

Elisabeth Nadin, 1997-1998, Caltech Ph.D., Assistant Professor, University of Alaska–Fairbanks (F)  
Greg Hoke, 1997-1998; Cornell Ph.D., Associate Professor, Syracuse University (M)  
Marieke Neissingh, 1998-1999, highest degree and present position not known to me.  
Kate Montgomery, 1999, highest degree and present position not known to me.  
Laura Plitnik, 2000, Earth Science teacher, Columbia High School, NY (F).  
Ben Swanson, 2003-2004, Training Manager, Trinity Solar (M).  
Kelly Hanks, 2004, Antioch University M.S., Taruna College Diploma (Education), Agricultural Arts teacher, Meadowbrook Waldorf School (F).  
Leah Lewis, 2010-2012, Ph.D. student & NSF Graduate Fellow, Scripps Institution of Oceanography, UCSD (F).  
Maureen Hayden, 2014-2015, Ph.D. student, Marine Biology, TAMU (F, vision-impaired).  
Clarisse Sullivan, 2014-2015, Ph.D. student & C-DEBI Graduate Fellow, U. Hawaii, SOEST (F, Pacific Islander).  
Victoria Fulfer, 2014-2016, URI GSO Ph.D. student (F).

#### *Non-URI undergraduates who have done summer projects in my laboratory include*

Gretchen Schultz, 1993, William Smith College, highest degree and present position not known to me (F).  
Uri Manor, St. Louis U., 2003, Johns Hopkins Ph.D., Director, Waitt Advanced Biophotonics Core Facility, Salk Institute for Biological Studies (M, deaf).  
Miranda Smith, Macalester College, 2003-2005, M.D., now a medical doctor (F)

#### *Non-URI undergraduates who have done summer projects in collaborating URI laboratories, funded by grants for which I was PI include:*

Beverly Chen, Washington U., 2003 (D.C. Smith laboratory), UCSD M.S., INSEAD MBA, Principal, Wipro Ltd, Health Business Unit (F, Asian American).  
Rika Anderson, Carleton College, 2005 (D.C. Smith laboratory), U. Washington Ph.D., Assistant Professor, Carleton University (F, Pacific Islander)



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### •Professional Development Credit (Teachers' Certification) Courses

*People and Planet - Global Environmental Change*, Autumn 2008, 1.5 credits, 30 students (sole instructor).

### •Undergraduate Courses

HPR 109 *People and Planet - Global Environmental Change*, Spring 2010, 3 credits, co-taught with Art Spivack. 10 students plus live audiences of approximately 450 and live-feed (internet) audiences of approximately 400 for each of four public lectures (with additional thousands of hits collectively for the archived lectures on Youtube).

HPR 109, *Life in the Universe*, Spring-2005, 2006, 2007, 2008, 3 credits, 14-17 undergraduate students. I co-taught the course with Arthur Spivack. We developed the course to provide undergraduate honors students with an exciting introduction to the natural sciences.

HPR 201, URI Honors Colloquium, *People and Planet - Global Environmental Change*, Autumn 2008, 3 credits, co-taught with Judith Swift and Art Spivack. 66 students plus (1) an audience of approximately 800 for weekly public lectures, (2) public library lectures (as part of book club discussions focused on the colloquium topic), (3) state-wide map exhibit and (4) website.

OCG 111, *Ocean Exploration*, Spring 2017, 2018, 2019, 3 credits, co-taught with Christopher Roman. 95 to 110 students. This course introduces undergraduate students to the excitement of ocean exploration and its relationship to fundamental understanding of the world.

OCG 110, *Ocean Exploration*, Autumn 2009, Spring 2011, 2013, 2014, 2015, 2016, 3 credits, co-taught with Christopher Roman. 95 to 130 students. I was the lead professor in the first year, but subsequently shared the lead with Professor Roman. We developed the course with Dr. Robert Pockalny and Professor Robert Ballard to introduce first-year undergraduate students to the excitement of ocean exploration and its relationship to fundamental understanding of the world.

OCG 451, *Introduction to Ocean Science*, Spring-1997, 1998, 1999, 2000, 2001, 3 credits, 17 to 23 undergraduate students. I usually co-taught the course with Brian Heikes (an atmospheric chemist). We developed the course to provide upper-class science and engineering majors with a challenging introduction to the marine sciences.

OCG 401, *General Oceanography*, Autumn-1992, 1993, 1994, 3 credits, 70 to 90 undergraduate students. This is an introductory course for non-science majors. I co-taught the course with GSO colleagues in biological, chemical, and physical oceanography.

### •Graduate Courses

Unless otherwise noted, I am (or was) the sole instructor for each of the following courses.

OCG 540, *Introduction to Geological Oceanography*, Spring-1998, 1999, 3 credits, 10-20 graduate and upperclass undergraduate students per year. I shared teaching responsibility for this course with three other faculty members.

OCG 542, *Introduction to Geological Oceanography*, Spring-1990, 1991, 1992, 3 credits, 10-20 graduate students/year. I shared teaching responsibility for this course with three other faculty members.

OCE 592/OCG 594: *Exploring Europa's Ocean: Science and Technology*, Spring, 2003, 3 credits, 12 students (co-taught with OCE Professor James Miller).

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- OCG 593, Interdisciplinary seminar on *Astrobiology*, Autumn, 2003, 3 credits, 2 graduate students.
- OCG 593, Interdisciplinary seminar on *Biological Control of Ocean Chemistry*, Autumn, 2006, 3 credits, six graduate students, co-taught with A. Spivack and R. Robinson.
- OCG 593, Interdisciplinary seminar on *Marine Geobiology*, Autumn 2013, 2015, 2017, 2018, 3 credits, 4-5 graduate students.
- OCG 649, *Plankton Paleoecology*, Autumn-1990, 1992, 1994, 1996, 1998, 3 credits, 1 to 5 graduate students/year.
- OCG 651, *Marine Stratigraphy*, Spring-1992, 1994, Autumn-1996, 1997, 2001, 2004, 2005, 2009, 2012, 2014, 3 credits, 1 to 10 graduate (and upperclass undergraduate) students/year.
- OCG 693F, Interdisciplinary seminar on *Marine Biological Productivity*, Spring, 1994, 3 credits, 10 graduate students (co-led with Dana Kester).
- OCG 694, Interdisciplinary seminar on *Subsurface Life*, Autumn, 2002, 3 credits, 4 graduate students (co-led with Arthur Spivack and David C. Smith).
- OCG 694E, *Impact Catastrophes in Earth History*, Spring, 1995, 3 credits, 12 graduate and undergraduate students. This was a joint seminar with the Planetary Geology Group of Brown University (co-led with Peter Schultz of Brown University, David Fastovsky and Haraldur Sigurdsson).
- OCG 693F, Interdisciplinary seminar on *Life in Extreme Environments*, Spring, 1998, 1 credit, 16 graduate students (lectures by visiting scientists, co-led with microbiologist David Smith).
- OCG 693F, Interdisciplinary seminar on *Astonishing Solutions to Difficult Problems*, Spring, 1999, 1 credit, 5 graduate students (co-led with oceanographer Michael Pilson).

### Funded Research Experience

#### Pending

8/19-present *Collaborative Research: Influence of pressure on hadal communities in seafloor sediment*, NSF-OCE Biological Oceanography, URI portion is \$1,035,584 (UCSD portion is \$542,805). I am the PI. R. Pockalny is a Co-PI and Douglas Bartlett is the collaborating PI at UCSD (Scripps Institution of Oceanography).

Current (I have \$2.4M in active grants). Unless otherwise noted, I am the principal investigator.

2016-present *An Autonomous Ocean Profiling and Water Sampling System for 0 to 11 km of Water Depth*, NSF-OCE OTIC, \$738,837. I am the PI. C.N. Roman and R. Pockalny are Co-PIs.

2015-present *Center for Dark Energy Biosphere Investigations Phase 2*, Science and Technology Centers: Integrative Partnerships program, URI portion is \$1.7M. J. Amend (USC) is the PI. I am one of four Co-PIs.

Previous (From 1990 to 2019, I was PI or Co-PI on funded research projects that provided \$8.7M to URI, in addition to the current grants listed above). Unless otherwise noted, I was the PI.

2016-2019 *IODP Expedition 370 Temperature Limit of the Deep Biosphere off Moroto*, USSSP support for *Justine Sauvage*, USSSP/IODP, \$23,729.

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- 2015-2019 *Deep North Atlantic Salinity, Density and Pre-formed Nitrate during the Last Glacial Maximum*, NSF-OCE MG&G, \$319,978. A.J. Spivack is the PI. I am a Co-PI.
- 2011-2017 *Collaborative Research: IODP Expedition 329 Objective Research on Supply of H<sub>2</sub> by Water Radiolysis in Subseafloor Sediment of the South Pacific Gyre*, NSF Ocean Drilling, URI portion was \$185,507. I am the PI. R. Murray (Boston University) and A. Spivack are Co-PIs.
- 2014-2016 *Coupling of Ammonium Oxidation and Sulfate Reduction in Bay of Bengal Sediment*, Consortium for Ocean Leadership/USSSP, \$36,000.
- 2014-2015 *North Atlantic Meridional Circulation during the Last Glacial Maximum: Density Structure and Pre-formed Nitrate: Phase I*, NSF-OCE MG&G EAGER, \$299,747. A.J. Spivack was the PI. I was a Co-PI.
- 2013-2016 *Microbial Taxa in Subseafloor Environments and Seeps*, ExxonMobil, \$230,000.
- 2012-2015 *IODP Expedition 337 Shimokita Coalbed Biosphere USSSP support for Justine Sauvage*, USSSP/IODP, \$23,694.
- 2011-2016 *Radiolytic hydrogen and microbial life in subseafloor sediment and basalt*, NASA Astrobiology: Exobiology and Evolutionary Biology, \$173,246.
- 2011-2015 *Quantification of contamination potential in South Pacific Gyre sediment*, Consortium for Ocean Leadership/USSSP, \$15,000.
- 2010-2016 *U.S. Science Support Program Salary for IODP Expedition 329*, USSSP/IODP, \$196,127.
- 2010-2015 *Center for Dark Energy Biosphere Investigations*, Science and Technology Centers: Integrative Partnerships program, URI portion is \$1.37M. J. Amend (USC) is the PI. I was one of four Co-PIs.
- 2010-2012 *Microbial Community Composition of the Bering Sea Site U1344*, Consortium for Ocean Leadership/USSSP, \$15,000.
- 2009-2011 *Quantification of the causes of pH variation in Narragansett Bay: Implications for the modern bay and future consequences of anthropogenic CO<sub>2</sub> production*, Rhode Island Sea Grant, \$52,920.
- 2009-2011 *U.S. Science Support Program Salary for IODP Expedition 323 for Emily Walsh*, USSSP/IODP, \$11,899.
- 2008-2013 *Oceanographic control and global distributions of subseafloor microbial life and activity*, \$817,544. NSF Division of Ocean Sciences, Biological Oceanography, I am the Principal Investigator. R. Pockalny, A. Spivack and D.C. Smith are Co-PIs.
- 2008-2012 *An amino acid-based isotopic method for studying the dynamics of ancient ecosystems*, NSF Division of Earth Sciences, Sedimentary Geology and Paleontology, \$23,409 SGER. David Fastovsky is the PI. Rebecca Robinson and I are Co-PIs.
- 2005-2009 *Collaborative Research: Drilling Site Survey-Life in Subseafloor Sediments of the South Pacific Gyre*, NSF Division of Ocean Sciences - Ocean Drilling Program, \$396,773 (URI portion). I was the PI. R. Pockalny and A. Spivack were URI Co-PIs. A. Teske (UNC-Chapel Hill) and L. Abrams (UNC-Wilmington) were

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- collaborating U.S. Principal Investigators. T. Ferdelman and B.B. Jørgensen (MPI-Bremen) were international collaborators.
- 2004-2009 *Acquisition of Field Laboratory for Study of Subseafloor Life*, NSF Division of Ocean Sciences – Major Research Instrumentation, \$345,000 (matched by \$148,000 from URI). I was the PI. A. Spivack, D.C. Smith, D. Rowley and J. King were Co-PIs.
- 2002-2009 *Shipboard Science Support ODP Leg 201*, Joint Oceanographic Institutions (JOI-USSSP #F001696), \$99,992.
- 2001-2007 *Subsurface Biospheres*, NASA Astrobiology Institute, \$3,872,065. I was the PI. A. Teske, A. Spivack, D. Smith, and K.-U. Hinrichs were Co-PIs.
- 2001-2005 *Competed GSO Graduate Fellowship* (as RISG Affiliate Director for GSO), RI Space Grant, 2004/2005 - \$23,685, 2003/2004 - \$24,702, 2002/2003 - \$22,556, 2001/2002 - \$21,793.
- 2000-2002 *Marine Electronic Library Pilot Project*, Rhode Island Sea Grant, \$6,465. I was the PI. E. Uhlinger, R. Pockalny, and I. R. Mather were Co-PIs.
- 1999-2004 *Planktic Evolution, Carbon Fluxes, and Ecologic Recovery from the Cretaceous-Paleogene Mass Extinction*, National Science Foundation (NSF) Division of Earth Sciences (EAR), \$220,000.
- 1999-2000 *Development of an Interdisciplinary Program for Deep Biosphere Research on the Ocean Drillship Joides Resolution*, NSF Life in Extreme Environments (LEExEn), \$228,000. Andreas Teske (WHOI) was the PI. I was a Co-PI.
- 1999-2000 *USSSP Site Augmentation Proposal: Chemical Limits to Microbial Communities in Deep-Sea Sediments*, Joint Oceanographic Institutions (JOI) U.S. Science Support Program (USSSP), \$29,287.
- 1996-1999 *Shipboard Science Support and Late Cretaceous and Paleocene Integrated Stratigraphy...ODP Sites 999 and 1001*, Joint Oceanographic Institutions (JOI-USSSP), \$49,243.
- 1995-1999 *Sub-Milankovitch Climate Variability in the Tropical Atlantic*, NSF Division of Ocean Sciences (OCE) (#9510041), \$129,955.
- 1997-1998 *Organic Molecules and Educational Outreach at the Junction of Space and Ocean Sciences*, Rhode Island Space Grant (#72822710), \$8,762.
- 1996 *Biological Ground-Truthing of Molecular Organic Analyses Used to Test Global Climate Models*, URI Research Council, \$5,788.
- 1994-1997 *Isotopic Tests of Planktic Foraminiferal Survivorship or Reworking Across the Cretaceous-Tertiary Boundary*, NSF-EAR (#9406506), \$100,433.
- 1993-1998 *The Evolution of Late Cretaceous Climate Cycles*, NSF-OCE (#9302483), \$190,000.
- 1993-1995 *Bolide Impact On Evaporite Terrane: Sulfur Gas Emission, Aerosol Formation, and Ejecta Dispersal*, National Aeronautic and Space Administration (NASA) (#NA6W3496), \$90,120. Haraldur Sigurdsson was the PI. I was a Co-PI.

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- 1993-1995 *Bolide Impact On Evaporite Terrane: Sulfur Gas Emission, Aerosol Formation, and Ejecta Dispersal*, NSF-EAR (#9219121), \$99,926. Haraldur Sigurdsson was the PI. I was a Co-PI.
- 1991 *Field Study of the K/T Tektite Deposits near Beloc, Haiti*, National Geographic Society, \$15,000. Haraldur Sigurdsson was the PI. I was a Co-PI.
- 1990-1993 *Campanian-Maestrichtian Planktonic Foraminiferal Paleoecology and Global Paleooceanography*, NSF-OCE (#9012314), \$123,982. I was the PI. Michael Arthur and John King were Co-PIs.
- 1990-1992 *Paleoenvironmental Associations and Paleoecology of Earliest Paleocene Planktonic Foraminifera*, American Chemical Society (ACS) Petroleum Research Fund (PRF) (#23488G8), \$18,000.

### Pending Drilling Expedition Proposals

- 2017-present *Blake Nose Drilling: Effects on Subseafloor Life of a Major Lithologic Unconformity and Past Oceanic Events*, International Ocean Discovery Program (IODP) Proposal 929, by S. D'Hondt, R. Pockalny, V. Galy, L. Hamdan, A. Henderson, F. Inagaki, R.M. Leckie, Y. Morono, R. Murray, W. Orsi, R. Pancost, G. Ramirez, A.C. Ravelo, T. Treude, and L. Wehrmann, currently under consideration for scheduling by the *JOIDES Resolution* Facility Board.
- 2013-present *Nature and origin of subseafloor life in Mesozoic sediment of the Scott Plateau*, International Ocean Discovery Program (IODP) Ancillary Program Letter 830, by S. D'Hondt, J. Kirkpatrick, A. Abrajevitch, F. Colwell, H. Cypionka, B. Engelen, S. Gallagher, C. Hubert, F. Inagaki, J. Kallmeyer, Y. Morono, R. Murray, B. Opdyke and R. Pockalny. Not yet scheduled, due to geographic location (far from recent *JOIDES Resolution* shiptrack) and lack of clearance from Indonesia.

### Previous (Funded) Drilling Expedition (ODP and IODP) Proposals

- 2008-2009 *Microbial respiration, biomass and community composition in subseafloor sediment of the very high-productivity Bering Sea*, Integrated Ocean Drilling Program (IODP) Ancillary Program Letter 739, by S. D'Hondt, T. Ferdelman, J. Kallmeyer, A.J. Spivack and R. Pockalny. Drilled July-September 2009 (as part of IODP Expedition 323).
- 2005-2011 *Microbiology of a Sediment Pond and the Underlying Young, Cold, Hydrologically Active Ridge Flank*, IODP proposal, by K. Edwards, W. Bach, G. Wheat, A. Teske, A. Schippers, J. Huber, S. D'Hondt, H. Villinger, K.-U. Hinrichs, T.M. McCollom, V. Edgcomb, J. Bernhard, O. Rouxel. Drilled September-November 2011 (Integrated Ocean Drilling Program Expedition 336).
- 2004-2010 *Life beneath the seafloor of the South Pacific Gyre*, IODP proposal 662, by S. D'Hondt, T. Ferdelman, R. Pockalny, R. Harris, A. Spivack, R. Robinson, K. Kelley, B.B. Jørgensen, A. Teske and K. Edwards. Drilled October-December 2010 (IODP Expedition 329).
- 2003 *The Hydrogeologic Architecture of Basaltic Oceanic Crust: Compartmentalization, Anisotropy, Microbiology, and Crustal-scale Properties on the Eastern Flank of Juan de Fuca Ridge*, Integrated Ocean Drilling Program proposal 545, by A.T. Fisher, J. Alt, W. Bach, J. Baross, K. Becker, J. Cowen, S. D'Hondt, E.E. Davis, M. Hutnak, D. Kadko, M. McCarthy, J.S. McClain, M.J. Mottl, M. Sinha, G. Spinelli, V. Spiess, D. Teagle, H. Villinger, C.G. Wheat, and L. Zühlsdorff. Drilled June-August 2004 and July-September 2010 (IODP Expeditions 301 and 327).

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- 1999-2000 *Controls on Microbial Communities in Deeply Buried Sediments*, Ocean Drilling Program proposal 571, by S. D'Hondt, A. Teske, K. Hinrichs, R. Murray, S. Rutherford, D.C. Smith, A. Spivack, B.B. Jørgensen, and T.G. Ferdelman. Drilled February-April 2002 (Ocean Drilling Program Leg 201).
- 1992-1995 *Caribbean Ocean History and the Cretaceous-Tertiary Boundary Impact Event*, Ocean Drilling Program proposal 415 and subsequent revisions. Original proposal by H. Sigurdsson, S. Carey, S. D'Hondt, and L. Abrams. Drilled December 1995-February 1996 (ODP Leg 165).

### Recent Collaborators (past 48 months, not at URI)

My recent co-authors and current collaborators include biogeochemists, geochemist, geophysicists, microbiologists, molecular biologists, and geomicrobiologists. Recent co-authors of peer-reviewed publications (identified by A below) and project collaborators (identified by C below) include the following individuals:

	<b>Name:</b>	<b>Organizational Affiliation</b>	<b>Last Active</b>
A	Adhikari, Rishi	MARUM (U. Bremen)	1/1/16
C	Amend, Jan	University of Southern California (USC)	present
A	Anderson, Chloe	Boston University	present
A	Ao, Yutaro	U. Tokyo	present
C	Bartlett, Douglas	UCSD	present
A	Coskun, Ömer	Ludwig-Maximilians U.	present
A	Dunlea, Ann G.	WHOI	present
A	Estes, Emily	U. Delaware	present
C	Finkel, Steven	USC	present
C	Fisher, Andrew	UCSC	present
C	Flinders, Ashton	USGS	present
A	Garber, Arkadiy	Montana State University	present
A	Glombitza, Clemens	U. Potsdam	1/1/16
A	Gómez-Consarnau, Laura	USC	present
A	Hansel, Colleen	WHOI	present
C	Heidelberg, John	USC	present
A	Hinrichs, Kai-Uwe	U. Bremen	1/1/19
A	Hori, Tomoyuki	AIST (Japan)	present
A	Hoshino, Tatsuhiko	JAMSTEC	present
C	Huber, Julie	WHOI	present
A	Ikehara, Minoru	Kochi U.	present
A	Inagaki, Fumio	JAMSTEC	present
A	Ito, Motoo	JAMSTEC	present
A	Jørgensen, Steffen	U. Bergen	present
A	Kagi, Hiroyuki	U. Tokyo	present
A	Kallmeyer, Jens	Helmholz Centre JfZ	1/1/16
A	Kirkpatrick, John B.	Evergreen State University	present
A	Kouduka, Mariko	U. Tokyo	present
A	Lewis, Leah	UCSD	1/1/17

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A	Magritsch, Tobias	Ludwig-Maximilians U.	present
A	McKinley, Claire C.	TAMU	present
A	Mukai, Hiroki	U. Tokyo	present
A	Murray, Richard W.	Boston University	present
A	N'Guessan, Lucie	ExxonMobil	1/1/16
A	Nickel, Julia	U. Potsdam	1/1/16
A	Nordlund, Dennis	Stanford Synchrotron	present
C	Orcutt, Beth	Bigelow Lab	present
C	Orphan, Victoria	Caltech	present
C	Orsi, William	Ludwig-Maximilians U.	present
C	Ramírez, Gustavo	UNC-Chapel Hill	present
A	Regberg, Aaron	NASA	1/1/16
A	Rutherford, Scott D.	Roger Williams U.	1/1/16
A	Sogin, Mitchell	MBL	1/1/16
C	Spormann, Alfred	Stanford University	present
A	Summers, Zarath M.	ExxonMobil	1/1/16
A	Suzuki, Yohey	U. Tokyo	present
A	Sylvan, Jason	TAMU	present
A	Terada, Takeshi	Marine Works Japan	present
A	Tomioka, Naotaka	JAMSTEC	present
A	Uhlig, Christiane	AWI Helmholtz Center	present
A	Yamashita, Seiya	U. Tokyo	present
A	Vargas, Sergio	Ludwig-Maximilians U.	present
A	Vuillemin, Aurele	Ludwig-Maximilians U.	present
A	Walsh, Emily A.	Seres Therapeutics	1/1/19
A	Wankel, Scott	WHOI	present
C	Wheat, Geoff	U. Alaska Fairbanks	present
A	Xiao, Nan	JAMSTEC	present
A	Zhao, Rui	U. Delaware	present

**Graduate Advisor:** Gerta Keller (Princeton University).

**Postdoctoral advisees:**

Below, I list my previous postdoctoral advisees. Each listing includes name, years that I mentored them, their present position, and, in parentheses, their gender (female = F, male = M), and under-represented group membership (if known to me).

Gustavo Ramirez, 2017-2018, Postdoctoral Scholar, UNC-Chapel Hill (M, Latino)

John Kirkpatrick, 2011-2016, Faculty, Evergreen State College (M)

Jens Kallmeyer, 2005-2006, Staff Scientist, German Research Center for Geosciences, Potsdam (M).

Bruno Soffientino, 2003-2007, Associate Professor, Community College of Rhode Island (M).

Helen Coxall, 2003-2004, Docent Senior Lecturer, Stockholm University (F).

Scott Rutherford, 2000-2002, Professor, Roger Williams University (M).

