CURRICULUM VITAE

1. Personal Data:

Dr. Mitchell Loyd Sogin
Distinguished Scientist
Josephine Bay Paul Center for Comparative Molecular Biology and Evolution
The Marine Biological Laboratory
Woods Hole, MA 02543

2. Education:

1963-1967 University of Illinois, Urbana, Illinois B.S. in Chemistry and Microbiology
1967-1969 University of Illinois, Urbana, Illinois under Z. John Ordal, M.S. in Industrial Microbiology
Research Activities: Bacterial endospore germination
1969-1972 University of Illinois, Urbana, Illinois under Carl R. Woese, Ph.D. in Microbiology and Molecular Biology
NIH Predoctoral fellowship
Sigma Xi Research Award
Research Activities: Ribosomal RNA processing, Molecular evolution
1972-1976 National Jewish Center, Denver, Colorado with Norman R. Pace,
NIH Postdoctoral Fellowship
Research Activities: in vitro rRNA processing

3. Professional Appointments:

1976-1989 National Jewish Center, Denver, Colorado, Senior Staff Scientist in the Department of Molecular and Cellular Biology.
1980-1986 Assistant Professor, University of Colorado Health Sciences Center, Department of Biochemistry and Biophysics
1986-1999 Associate Fellow of the Canadian Institute for Advanced Research,
1986-1999 Associate Professor, University of Colorado Health Sciences Center, Department of Microbiology
1989-2014 Senior Scientist, Marine Biological Laboratory at Woods Hole
1997-1998 Visiting Miller Research Professor, University of California at Berkeley
1997-2013 Founding Director, Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory at Woods Hole
2004-2017 Professor (MBL), Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Providence, RI
2014-Present Distinguished Scientist, Marine Biological Laboratory at Woods Hole

4. Publications: (h-index 110, i10-index 250, Citations 61,211)

a. Books/Monographs

1. Sogin ML. Relationships among precursor and Mature Ribosomal RNAs. Urbana IL: University of Illinois, Urbana; 1972.

b. Chapters in Books / Proceedings

1. Sogin ML, McCall WA, Ordal ZJ. Effect of heat activation conditions on the germinal response of Bacillus cereus-T spores. Spores V. Washington, D.C.: American Society of Microbiologists; 1972. p. 363.
2. Pace NR, Sogin ML, editors. In vitro maturation of precursors of 5 S ribosomal RNA from Bacillus subtilis. Brookhaven Symp Biol; 1975 Jul: Brookhaven National Laboratory Associated Universities INC.
3. Pace NR, Meyhack B, Pace B, Sogin ML. The interaction of RNase M5 with a 5S ribosomal RNA precursor. In: Abelson J, Schimmel P, Soll D, editors. tRNA: Biological Aspects. Cold Spring Harbor, N.Y.: Cold Spring Harbor Laboratory; 1980. p. 155-71.
4. Pace NR, Gardiner B, Meyhack B, Pace B, Sogin ML, Stahl DA. RNA processing in Bacillus subtilis. In: Schlessinger D, editor. Microbiology. Washington, D.C.: American Society for Microbiology; 1982. p. 32-40.
5. Sogin ML, Edman U, Elwood HJ. A single kingdom of eukaryotes in: "The Hierarchy of Life. In: Fernholm B, Bremer K, Jornvall H, editors. Molecules and Morphology in Phylogenetic Analysis. Nobel Symposium Amsterdam: Elsevier Press; 1989. p. 133-43.
6. Sogin ML. Evolution of Eukaryotic Ribosomal RNA Genes In: Parker S, editor. McGraw-Hill Yearbook of Science and Technology. New York: McGraw-Hill; 1989. p. 260-2.
7. Sogin ML. Amplification of Ribosomal RNA Genes for Molecular Evolution Studies. In: Innis MA, Gelfand DH, Sninsky JJ, White TJ, editors. PCR-Protocols: A Guide to Methods and Applications. San Diego. CA: Academic Press, INC; 1990. p. 307-14.
8. Sogin ML. The Phylogenetic Significance of Sequence Diversity and Length Variations in Eukaryotic Small Subunit Ribosomal RNA Coding Regions Wiley-Liss, Inc. ; 1991. p. 175-88.
9. Patterson DJ, Sogin ML, editors. Eukaryote origins and protistan diversity The Origin and Evolution of the Cell: Proceedings of the Conference on the Origin and Evolution of Prokaryotic and Eukaryotic Cells; 1992; Shimoda Japan. NJ: World Scientific Pub. Co.; 1992.
10. Sogin ML. Molecular Biology and Protoctist Phylogeny. In: Margulis L, McKhann H, Olendzenski L, editors. Illustrated Glossary of Protoctista. Boston: Jones and Bartlett; 1993. p. xlv-xlvii.
11. Edman JC, Sogin ML. Molecular Phylogeny of *Pneumocystis carinii*. In: Walzer PD, editor. Pneumocystis carinii pneumonia. 2nd ed. New York: Marcel Dekker; 1993. p. 91-105.
12. Sogin ML. The Origin of Eukaryotes and Evolution into Major Kingdoms in: "Early Life on Earth. Early Life on Earth Nobel Symposium 84. Early Life on Earth. New York: Columbia University Press; 1994. p. 181-92.

13. Wainright PO, Patterson DJ, Sogin ML. Monophyletic Origin of Animals: A Shared Ancestry with the Fungi. In: Fambrough DM, editor. Molecular evolution of Physiological Processes 47th Symposium Society of General Physiologists. Marine Biological Laboratory, Woods Hole MA: The Rockefeller University Press; 1994. p. 39-53.
14. Bennett MV, Zheng X, Sogin ML, editors. The connexins and their family tree. Soc Gen Physiol Ser; 1994 1994; Marine Biological Laboratory, Woods Hole MA: The Rockefeller University Press; New York.
15. Sogin ML, Silberman JD, Hinkle G, Morrison HG, editors. Problems with Molecular Diversity in the Eukarya. Society for General Microbiology; 1996 1996; University of Warick: Cambridge University Press.
16. Sogin ML, Hinkle G, editors. Common Measures for Studies of Biodiversity: Molecular phylogeny in the eukaryotic microbial world. Biodiversity II; 1997; Washington, DC: Joseph Henry Press.
17. Clark CG, Silberman JD, Diamond LS, Sogin ML. Molecular systematics of the intestinal amoebae. In: Coombs GH, Vickerman K, Sleigh MA, Warren A, editors. Evolutionary Relationships Among Protozoa. 56. London: Chapman & Hall; 1998. p. 169-80.
18. Amaral Zettler LA, Anderson OR, Nerad TA, Sogin ML, editors. The phylogenetic position of Comandonia operculata and its implications for the taxonomy of the genus Acanthamoeba. Ixth International Meeting on the Biology And Pathogenicity of Free-living Amoebae Proceedings; 2001; Paris. Paris: John Libbey Eurotext Ltd.
19. Patterson DJ, Sogin ML, McArthur AG. The micro*scope web tool. In: Sullivan WT, Baross JA, editors. Planets and Life: The emerging Science of Astrobiology. Cambridge: Cambridge University Press; 2007. p. 579-84.
20. Sogin ML, Patterson DJ. The origin and diversification of eukaryotes. In: Sullivan WT, Baross JA, editors. Planets and Life: The emerging Science of Astrobiology. Cambridge: Cambridge University Press; 2007. p. 265-74.
21. Sogin ML. Characterizing Microbial Population Structures through Massively Parallel Sequencing In: Epstein SS, editor. Uncultivated Microorganisms. Dordrecht Heidelberg London New York Springer Press; 2009. p. 19-34.
22. Amaral-Zettler LA, Artigas LF, Baross JA, Bharathi L, Boetius A, Chandramohan D, et al. A global census of marine microbes. In: McIntyre A, editor. Life in the World's Oceans: Diversity, Distribution and Abundance. Oxford: Wiley-Blackwell Publishing Ltd; 2010. p. 223-45
23. Shanks OC, McLellan S, Huse SM, Sogin ML. Characterization of Microbial Community Structures in Recreational Waters and Primary Sources of Faecal Pollution with a Next-generation Sequencing Approach. Environmental Microbiology: Current Technology and Water Applications. 2011:203-23. PubMed PMID: WOS:000283818300009.
24. Sogin ML. Trying to Make Sense of the Microbial Census. In: Maloy S, Kolter R, editors. Microbes and Evolution: The World That Darwin Never Saw. Washington, DC: ASM Press; 2012. p. 31-7.
25. Huse SM, Mark Welch DB, Sogin ML, editors. Sequencing Errors, diversity Estimates, and the Rare Biosphere. The Science and Applications of Microbial Genomics; 2013 2013; Washington, DC. Washington, DC: The National Academies Press.

26. Agogue H, Lamy D, Neal PR, Sogin ML, Herndl GJ. Water mass-specificity of bacterial communities in the North Atlantic revealed by massively parallel sequencing. Molecular Ecology. 2011;20(2):258-74. doi: 10.1111/j.1365-294X.2010.04932.x. PubMed PMID: WOS:000285970200008.

c. Refereed Journal Articles

1. Sogin M, Pace B, Pace NR, Woese CR. Primary structural relationship of p16 to m16 ribosomal RNA. Nat New Biol. 1971;232(28):48-9. PubMed PMID: 4935733.
2. Schaup HW, Sogin M, Woese C. Characterization of an RNA "binding site" for a specific ribosomal protein of Escherichia coli. Mol Gen Genet. 1972;114(1):1-8. PubMed PMID: 4552495.
3. Sogin ML, Pechman KJ, Zablen L, Lewis BJ, Woese CR. Observations on the post-transcriptionally modified nucleotides in the 16S ribosomal ribonucleic acid. J Bacteriol. 1972;112(1):13-6. PubMed PMID: 4342811; PubMed Central PMCID: PMCPMC251375.
4. Sogin SJ, Sogin ML, Woese CR. Phylogenetic measurement in procaryotes by primary structural characterization. J Mol Evol. 1972;1(2):173-84. doi: 10.1007/BF01659163. PubMed PMID: 24173440.
5. Schaup HW, Sogin ML, Kurland CG, Woese CR. Localization of a binding site for ribosomal protein S8 within the 16S ribosomal ribonucleic acid of Escherichia coli. J Bacteriol. 1973;115(1):82-7. PubMed PMID: 4577755; PubMed Central PMCID: PMCPMC246216.
6. Sogin ML, Woese CR, Pace B, Pace NR. The relationship between precursor and mature forms of the 23S ribosomal RNA. J Mol Evol. 1973;2(2-3):167-74. PubMed PMID: 4219972.
7. Dobson PR, Doolittle WF, Sogin ML. Precursor of 5S ribosomal ribonucleic acid in the blue-green alga Anacystis nidulans. J Bacteriol. 1974;117(2):660-6. PubMed PMID: 4204437; PubMed Central PMCID: PMCPMC285557.
8. Woese CR, Sogin ML, Sutton LA. Procaryote phylogeny. I. Concerning the relatedness of Aerobacter aerogenes to Escherichia coli. J Mol Evol. 1974;3(4):293-9. PubMed PMID: 4606938.
9. Pribula CD, Fox GE, Woese CR, Sogin ML, Pace NR. Nucleotide sequence of Bacillus megaterium 5 S RNA. FEBS Lett. 1974;44(3):322-3. PubMed PMID: 4213268.
10. Sogin ML, Pace NR. In vitro maturation of precursors of 5S ribosomal RNA from Bacillus subtilis. Nature. 1974;252(5484):598-600. PubMed PMID: 4215038.
11. Doolittle WF, Woese CR, Sogin ML, Bonen L, Stahl D. Sequence studies on 16S ribosomal RNA from a blue-green alga. J Mol Evol. 1975;4(4):307-15. PubMed PMID: 813006.
12. Woese C, Sogin M, Stahl D, Lewis BJ, Bonen L. A comparison of the 16S ribosomal RNAs from mesophilic and thermophilic bacilli: some modifications in the Sanger method for RNA sequencing. J Mol Evol. 1976;7(3):197-213. PubMed PMID: 819656.
13. Marotta CA, Varricchio F, Smith I, Weissman SM, Sogin ML, Pace NR. The primary structure of Bacillus subtilis and Bacillus stearothermophilus 5 S ribonucleic acids. J Biol Chem. 1976;251(10):3122-7. PubMed PMID: 818086.

14. Sogin ML, Pace NR. Nucleotide sequence of 5 S ribosomal RNA precursor from Bacillus subtilis. J Biol Chem. 1976;251(11):3480-8. PubMed PMID: 179998.

15. Sogin ML, Pace B, Pace NR. Partial purification and properties of a ribosomal RNA maturation endonuclease from Bacillus subtilis. J Biol Chem. 1977;252(4):1350-7. PubMed PMID: 402365.

16. Schroeder E, McKibbin J, Sogin ML, Pace NR. Mode of degradation of precursor-specific ribonucleic acid fragments by Bacillus subtilis. J Bacteriol. 1977;130(3):1000-9. PubMed PMID: 405368; PubMed Central PMCID: PMCPMC235320.

17. Sogin ML, Olsen GJ. Identification and mapping of a 60 bp EcoRI fragment in the Dictyostelium discoideum ribosomal DNA. Gene. 1980;8(3):231-8. PubMed PMID: 6244213.

18. Peffley DM, Sogin ML. A putative tRNATrp gene cloned from Dictyostelium discoideum: its nucleotide sequence and association with repetitive deoxyribonucleic acid. Biochemistry. 1981;20(14):4015-21. PubMed PMID: 6269578.

19. Olsen GJ, Sogin ML. Nucleotide sequence of Dictyostelium discoideum 5.8S ribosomal ribonucleic acid: evolutionary and secondary structural implications. Biochemistry. 1982;21(10):2335-43. PubMed PMID: 7093192.

20. McCarroll R, Olsen GJ, Stahl YD, Woese CR, Sogin ML. Nucleotide Sequence of the Dictyosteilum Discoideum Small-Subunit Ribosomal Ribonucleic Acid Inferred from the Gene Sequence: Evolutionary Implications. Biochemistry. 1983;22(25):5858-68. doi: 10.1021/bi00294a027.

21. Olsen GJ, McCarroll R, Sogin ML. Secondary structure of the Dictyostelium discoideum small subunit ribosomal RNA. Nucleic Acids Res. 1983;11(22):8037-49. PubMed PMID: 6359065; PubMed Central PMCID: PMCPMC326558.

22. Elwood HJ, Olsen GJ, Sogin ML. The small-subunit ribosomal RNA gene sequences from the hypotrichous ciliates Oxytricha nova and Stylonychia pustulata. Mol Biol Evol. 1985;2(5):399-410. PubMed PMID: 3939705.

23. Lane DJ, Pace B, Olsen GJ, Stahl DA, Sogin ML, Pace NR. Rapid determination of 16S ribosomal RNA sequences for phylogenetic analyses. Proc Natl Acad Sci U S A. 1985;82(20):6955-9. PubMed PMID: 2413450; PubMed Central PMCID: PMCPMC391288.

24. Sogin ML, Elwood HJ, Gunderson JH. Evolutionary diversity of eukaryotic small-subunit rRNA genes. Proc Natl Acad Sci U S A. 1986;83(5):1383-7. PubMed PMID: 2419907; PubMed Central PMCID: PMCPMC323080.

25. Sogin ML, Swanton MT, Gunderson JH, Elwood HJ. Sequence of the small subunit ribosomal RNA gene from the hypotrichous ciliate Euplotes aediculatus. J Protozool. 1986;33(1):26-9. PubMed PMID: 3007752.

26. Sogin ML, Elwood HJ. Primary structure of the Paramecium tetraurelia small-subunit rRNA coding region: phylogenetic relationships within the Ciliophora. J Mol Evol. 1986;23(1):53-60. PubMed PMID: 3084799.

27. Dingermann T, Bertling W, Brechner T, Nerke K, Peffley DM, Sogin ML. Structure of two tRNA genes from Dictyostelium discoideum. Nucleic Acids Res. 1986;14(2):1127. PubMed PMID: 3633086; PubMed Central PMCID: PMCPMC339487.

28. Gunderson JH, McCutchan TF, Sogin ML. Sequence of the small subunit ribosomal RNA gene expressed in the bloodstream stages of Plasmodium berghei: evolutionary implications. J Protozool. 1986;33(4):525-9. PubMed PMID: 3540280.

29. Gunderson JH, Sogin ML. Length variation in eukaryotic rRNAs: small subunit rRNAs from the protists Acanthamoeba castellanii and Euglena gracilis. Gene. 1986;44(1):63-70. PubMed PMID: 3095190.

30. Sogin ML, Ingold A, Karlok M, Nielsen H, Engberg J. Phylogenetic evidence for the acquisition of ribosomal RNA introns subsequent to the divergence of some of the major Tetrahymena groups. EMBO J. 1986;5(13):3625-30. PubMed PMID: 3830129; PubMed Central PMCID: PMCPMC1167402.

31. Sogin ML, Miotto K, Miller L. Primary structure of the Neurospora crassa small subunit ribosomal RNA coding region. Nucleic Acids Res. 1986;14(23):9540. PubMed PMID: 2948156; PubMed Central PMCID: PMCPMC311989.

32. Sogin ML, Gunderson JH. Structural diversity of eukaryotic small subunit ribosomal RNAs. Evolutionary implications. Ann N Y Acad Sci. 1987;503:125-39. PubMed PMID: 3304074.

33. Lau PP, DeBrunner-Vossbrinck B, Dunn B, Miotto K, MacDonnell MT, Rollins DM, et al. Phylogenetic diversity and position of the genus Campylobacter. Syst Appl Microbiol. 1987;9:231-8. PubMed PMID: 11542086.

34. Gunderson JH, Elwood H, Ingold A, Kindle K, Sogin ML. Phylogenetic relationships between chlorophytes, chrysophytes, and oomycetes. Proc Natl Acad Sci U S A. 1987;84(16):5823-7. PubMed PMID: 3475703; PubMed Central PMCID: PMCPMC298955.

35. Gunderson JH, Sogin ML, Wollett G, Hollingdale M, de la Cruz VF, Waters AP, et al. Structurally distinct, stage-specific ribosomes occur in Plasmodium. Science. 1987;238(4829):933-7. PubMed PMID: 3672135.

36. McCutchan TF, de la Cruz VF, Lal AA, Gunderson JH, Elwood HJ, Sogin ML. Primary sequences of two small subunit ribosomal RNA genes from Plasmodium falciparum. Mol Biochem Parasitol. 1988;28(1):63-8. PubMed PMID: 2836731.

37. Lynn DH, Sogin ML. Assessment of phylogenetic relationships among ciliated protists using partial ribosomal RNA sequences derived from reverse transcripts. Biosystems. 1988;21(3-4):249-54. PubMed PMID: 2456107.

38. Edman JC, Kovacs JA, Masur H, Santi DV, Elwood HJ, Sogin ML. Ribosomal RNA sequence shows Pneumocystis carinii to be a member of the fungi. Nature. 1988;334(6182):519-22. doi: 10.1038/334519a0. PubMed PMID: 2970013.

39. Looker D, Miller LA, Elwood HJ, Stickel S, Sogin ML. Primary structure of the Leishmania donovani small subunit ribosomal RNA coding region. Nucleic Acids Res. 1988;16(14B):7198. PubMed PMID: 3405771; PubMed Central PMCID: PMCPMC338379.

40. Medlin L, Elwood HJ, Stickel S, Sogin ML. The characterization of enzymatically amplified eukaryotic 16S-like rRNA-coding regions. Gene. 1988;71(2):491-9. PubMed PMID: 3224833.

41. Sogin ML, Gunderson JH, Elwood HJ, Alonso RA, Peattie DA. Phylogenetic meaning of the kingdom concept: an unusual ribosomal RNA from Giardia lamblia. Science. 1989;243(4887):75-7. PubMed PMID: 2911720.

42. Cummings DJ, Domenico JM, Nelson J, Sogin ML. DNA sequence, structure, and phylogenetic relationship of the small subunit rRNA coding region of mitochondrial DNA from Podospora anserina. J Mol Evol. 1989;28(3):232-41. PubMed PMID: 2494352.

43. Edman JC, Kovacs JA, Masur H, Santi DV, Elwood HJ, Sogin ML. Ribosomal RNA genes of Pneumocystis carinii. J Protozool. 1989;36(1):18S-20S. PubMed PMID: 2540326.

44. Huss VA, Sogin ML. Primary structure of the Chlorella vulgaris small subunit ribosomal RNA coding region. Nucleic Acids Res. 1989;17(3):1255. PubMed PMID: 2922266; PubMed Central PMCID: PMCPMC331755.

45. Sogin ML. Evolution of Eukaryotic Microorganisms and Their Small Subunit Ribosomal RNAs. American Zoologist. 1989;29(2):487-99.

46. Sogin ML, Edman JC. A self-splicing intron in the small subunit rRNA gene of Pneumocystis carinii. Nucleic Acids Res. 1989;17(13):5349-59. PubMed PMID: 2788266; PubMed Central PMCID: PMCPMC318115.

47. Bhattacharya D, Elwood HJ, Goff LJ, Sogin ML. The Phylogeny of Gracilaria lemaneiformis (Rhodophyta) Based on Sequence Analysis of its Small Subunit Ribosomal RNA Coding Region. J Phycol. 1990;26:181-6. doi: 10.1111/j.0022-3646.1990.00181.x.

48. Forster H, Coffey MD, Elwood H, Sogin ML. Sequence-Analysis of the Small Subunit Ribosomal-Rnas of 3 Zoosporic Fungi and Implications for Fungal Evolution. Mycologia. 1990;82(3):306-12. doi: Doi 10.2307/3759901. PubMed PMID: WOS:A1990DK08100003.

49. Huss VA, Sogin ML. Phylogenetic position of some Chlorella species within the chlorococcales based upon complete small-subunit ribosomal RNA sequences. J Mol Evol. 1990;31(5):432-42. PubMed PMID: 2124631.

50. De Wit D, Steyn L, Shoemaker S, Sogin M. Direct detection of Mycobacterium tuberculosis in clinical specimens by DNA amplification. J Clin Microbiol. 1990;28(11):2437-41. PubMed PMID: 2123884; PubMed Central PMCID: PMCPMC268202.

51. Schlegel M, Elwood HJ, Sogin ML. Molecular evolution in hypotrichous ciliates: sequence of the small subunit ribosomal RNA genes from Onychodromus quadricornutus and Oxytricha granulifera (Oxytrichidae, Hypotrichida, Ciliophora). J Mol Evol. 1991;32(1):64-9. PubMed PMID: 1840617.

52. Greenwood SJ, Schlegel M, Sogin ML, Lynn DH. Phylogenetic relationships of Blepharisma americanum and Colpoda inflata within the phylum ciliophora inferred from complete small subunit rRNA gene sequences. J Protozool. 1991;38(1):1-6. PubMed PMID: 1900085.

53. Barns SM, Lane DJ, Sogin ML, Bibeau C, Weisburg WG. Evolutionary relationships among pathogenic Candida species and relatives. J Bacteriol. 1991;173(7):2250-5. PubMed PMID: 2007550; PubMed Central PMCID: PMCPMC207775.

54. Gajadhar AA, Marquardt WC, Hall R, Gunderson J, Ariztia-Carmona EV, Sogin ML. Ribosomal RNA sequences of Sarcocystis muris, Theileria annulata and Crypthecodinium cohnii reveal evolutionary relationships among apicomplexans, dinoflagellates, and ciliates. Mol Biochem Parasitol. 1991;45(1):147-54. PubMed PMID: 1904987.

55. Illingworth CA, Andrews JH, Bibeau C, Sogin ML. Phylogenetic Placement of Athelia-Bombacina, Aureobasidium-Pullulans, and Colletotrichum-Gloeosporioides Inferred from Sequence Comparisons of Small-Subunit Ribosomal-Rnas. Exp Mycol. 1991;15(1):65-75. doi: Doi 10.1016/0147-5975(91)90008-2. PubMed PMID: WOS:A1991FC78900007.

56. Ariztia EV, Andersen RA, Sogin ML. A New Phylogeny for Chromophyte Algae Using 16s-Like Ribosomal-Rna Sequences from Mallomonas-Papillosa (Synurophyceae) and Tribonema-Aequale (Xanthophyceae). J Phycol. 1991;27(3):428-36. doi: DOI 10.1111/j.0022-3646.1991.00428.x. PubMed PMID: WOS:A1991FR23900015.

57. Greenwood SJ, Sogin ML, Lynn DH. Phylogenetic relationships within the class Oligohymenophorea, phylum Ciliophora, inferred from the complete small subunit rRNA gene sequences of Colpidium campylum, Glaucoma chattoni, and Opisthonecta henneguyi. J Mol Evol. 1991;33(2):163-74. PubMed PMID: 1840618.

58. Davila-Aponte JA, Huss VA, Sogin ML, Cech TR. A self-splicing group I intron in the nuclear pre-rRNA of the green alga, Ankistrodesmus stipitatus. Nucleic Acids Res. 1991;19(16):4429-36. PubMed PMID: 1886767; PubMed Central PMCID: PMCPMC328630.

59. Medlin LK, Elwood HJ, Stickel S, Sogin ML. Morphological and Genetic-Variation within the Diatom Skeletonema-Costatum (Bacillariophyta) - Evidence for a New Species, Skeletonema-Pseudocostatum. J Phycol. 1991;27(4):514-24. doi: DOI 10.1111/j.0022-3646.1991.00514.x. PubMed PMID: WOS:A1991GD38300007.

60. Bhattacharya D, Stickel SK, Sogin ML. Molecular phylogenetic analysis of actin genic regions from Achlya bisexualis (Oomycota) and Costaria costata (Chromophyta). J Mol Evol. 1991;33(6):525-36. PubMed PMID: 1779434.

61. Bhattacharya D, Medlin L, Wainright PO, Ariztia EV, Bibeau C, Stickel SK, et al. Algae Containing Chlorophylls a + C Are Paraphyletic - Molecular Evolutionary Analysis of the Chromophyta. Evolution. 1992;46(6):1801-17. doi: Doi 10.2307/2410032. PubMed PMID: WOS:A1992KG89700014.

62. Bruns TD, Vilgalys R, Barns SM, Gonzalez D, Hibbett DS, Lane DJ, et al. Evolutionary Relationships within the Fungi: Analyses of Nuclear Small Subunit rRNA Sequences. Molecular Phylogenetics and Evolution. 1992;1(3):231-41. PubMed PMID: WOS:000207481100008.

63. Wainright PO, Hinkle G, Sogin ML, Stickel SK. Monophyletic origins of the metazoa: an evolutionary link with fungi. Science. 1993;260(5106):340-2. PubMed PMID: 8469985.

64. Bhattacharya D, Stickel SK, Sogin ML. Isolation and molecular phylogenetic analysis of actin-coding regions from Emiliania huxleyi, a Prymnesiophyte alga, by reverse transcriptase and PCR methods. Mol Biol Evol. 1993;10(3):689-703. PubMed PMID: 7687735.

65. Leipe DD, Gunderson JH, Nerad TA, Sogin ML. Small subunit ribosomal RNA+ of Hexamita inflata and the quest for the first branch in the eukaryotic tree. Mol Biochem Parasitol. 1993;59(1):41-8. PubMed PMID: 8515782.

66. Sogin ML, Hinkle G, Leipe DD. Universal tree of life. Nature. 1993;362(6423):795. doi: 10.1038/362795a0. PubMed PMID: 8479517.

67. Scholin CA, Anderson DM, Sogin ML. 2 Distinct Small-Subunit Ribosomal-Rna Genes in the North-American Toxic Dinoflagellate Alexandrium-Fundyense (Dinophyceae). J Phycol. 1993;29(2):209-16. doi: DOI 10.1111/j.0022-3646.1993.00209.x. PubMed PMID: WOS:A1993KY52900012.

68. Hinkle G, Sogin ML. The evolution of the Vahlkampfiidae as deduced from 16S-like ribosomal RNA analysis. J Eukaryot Microbiol. 1993;40(5):599-603. PubMed PMID: 8401474.

69. Gagnon S, Levesque RC, Sogin ML, Gajadhar AA. Molecular cloning, complete sequence of the small subunit ribosomal RNA coding region and phylogeny of Toxoplasma gondii. Mol Biochem Parasitol. 1993;60(1):145-8. PubMed PMID: 8366888.

70. Fong D, Rodriguez R, Koo K, Sun J, Sogin ML, Bushek D, et al. Small subunit ribosomal RNA gene sequence of the oyster parasite Perkinsus marinus. Mol Mar Biol Biotechnol. 1993;2(6):346-50. PubMed PMID: 8193669.

71. Hinkle G, Leipe DD, Nerad TA, Sogin ML. The unusually long small subunit ribosomal RNA of Phreatamoeba balamuthi. Nucleic Acids Res. 1994;22(3):465-9. PubMed PMID: 8127686; PubMed Central PMCID: PMCPMC523605.

72. Leipe DD, Bernhard D, Schlegel M, Sogin ML. Evolution of 16s-Like Ribosomal-Rna Genes in the Ciliophoran Taxa Litostomatea and Phyllopharyngea. Eur J Protistol. 1994;30(3):354-61. PubMed PMID: WOS:A1994PB99900012.

73. Leipe DD, Wainright PO, Gunderson JH, Porter D, Patterson DJ, Valois F, et al. The Stramenopiles from a Molecular Perspective - 16s-Like Ribosomal-Rna Sequences from Labyrinthuloides-Minuta and Cafeteria-Roenbergensis. Phycologia. 1994;33(5):369-77. doi: DOI 10.2216/i0031-8884-33-5-369.1. PubMed PMID: WOS:A1994PH45400007.

74. Gunderson JH, Goss SJ, Sogin ML. The sequence of the Hartmannella vermiformis small subunit rRNA coding region. J Eukaryot Microbiol. 1994;41(5):481-2. PubMed PMID: 7804250.

75. Hinkle G, Wetterer JK, Schultz TR, Sogin ML. Phylogeny of the attine ant fungi based on analysis of small subunit ribosomal RNA gene sequences. Science. 1994;266(5191):1695-7. PubMed PMID: 7992052.

76. Scholin CA, Herzog M, Sogin M, Anderson DM. Identification of Group-Specific and Strain-Specific Genetic-Markers for Globally Distributed Alexandrium (Dinophyceae) .2. Sequence-Analysis of a Fragment of the Lsu Ribosomal-Rna Gene. J Phycol. 1994;30(6):999-1011. doi: DOI 10.1111/j.0022-3646.1994.00999.x. PubMed PMID: WOS:A1994QD95400013.

77. Morrison HG, Oleksiak MF, Cornell NW, Sogin ML, Stegeman JJ. Identification of cytochrome P-450 1A (CYP1A) genes from two teleost fish, toadfish (Opsanus tau) and scup (Stenotomus chrysops), and phylogenetic analysis of CYP1A genes. Biochem J.

1995;308 (Pt 1):97-104. PubMed PMID: 7755595; PubMed Central PMCID: PMCPMC1136848.

78. Bernhard D, Leipe DD, Sogin ML, Schlegel KM. Phylogenetic relationships of the Nassulida within the phylum Ciliophora inferred from the complete small subunit rRNA gene sequences of Furgasonia blochmanni, Obertrumia georgiana, and Pseudomicrothorax dubius. J Eukaryot Microbiol. 1995;42(2):126-31. PubMed PMID: 7757053.
79. Kerk D, Gee A, Standish M, Wainwright PO, Drum AS, Elston RA, et al. The Rosette Agent of Chinook Salmon (Oncorhynchus-Tshawytscha) Is Closely-Related to Choanoflagellates, as Determined by the Phylogenetic Analyses of Its Small Ribosomal-Subunit Rna. Mar Biol. 1995;122(2):187-92. PubMed PMID: WOS:A1995QX95300003.
80. Gunderson J, Hinkle G, Leipe D, Morrison HG, Stickel SK, Odelson DA, et al. Phylogeny of trichomonads inferred from small-subunit rRNA sequences. J Eukaryot Microbiol. 1995;42(4):411-5. PubMed PMID: 7620466.
81. Sogin ML, Morrison HG, Hinkle G, Silberman JD. Ancestral relationships of the major eukaryotic lineages. Microbiologia. 1996;12(1):17-28. PubMed PMID: 9019131.
82. Hammerschmidt B, Schlegel M, Lynn DH, Leipe DD, Sogin ML, Raikov IB. Insights into the evolution of nuclear dualism in the ciliates revealed by phylogenetic analysis of rRNA sequences. J Eukaryot Microbiol. 1996;43(3):225-30. PubMed PMID: 8640192.
83. Silberman JD, Clark CG, Sogin ML. Dientamoeba fragilis shares a recent common evolutionary history with the trichomonads. Mol Biochem Parasitol. 1996;76(1-2):311-4. PubMed PMID: 8920018.
84. Silberman JD, Sogin ML, Leipe DD, Clark CG. Human parasite finds taxonomic home. Nature. 1996;380(6573):398. doi: 10.1038/380398a0. PubMed PMID: 8602239.
85. Santamaria-Fries M, Fajardo LF, Sogin ML, Olson PD, Relman DA. Lethal infection by a previously unrecognised metazoan parasite. Lancet. 1996;347(9018):1797-801. PubMed PMID: 8667924.
86. Leipe DD, Tong SM, Goggin CL, Slemenda SB, Pieniazek NJ, Sogin ML. 16S-like rDNA sequences from Developayella elegans, Labyrinthuloides haliotidis, and Proteromonas lacertae confirm that the stramenopiles are a primarily heterotrophic group. Eur J Protistol. 1996;32(4):449-58. PubMed PMID: WOS:A1996WG56100004.
87. Relman DA, Schmidt TM, Gajadhar A, Sogin M, Cross J, Yoder K, et al. Molecular phylogenetic analysis of Cyclospora, the human intestinal pathogen, suggests that it is closely related to Eimeria species. J Infect Dis. 1996;173(2):440-5. PubMed PMID: 8568307.
88. Bahr M, Hobbie JE, Sogin ML. Bacterial diversity in an arctic lake: A freshwater SAR11 cluster. Aquat Microb Ecol. 1996;11(3):271-7. doi: DOI 10.3354/ame011271. PubMed PMID: WOS:A1996WD15000008.
89. Schlegel M, Lom J, Stechmann A, Bernhard D, Leipe D, Dykova I, et al. Phylogenetic analysis of complete small subunit ribosomal RNA coding region of Myxidium lieberkuehni: Evidence that Myxozoa are Metazoa and related to the Bilateria. Arch Protistenkd. 1996;147(1):1-9. PubMed PMID: WOS:A1996UU09400001.

90. Sogin ML. Organelle origins: energy-producing symbionts in early eukaryotes? Curr Biol. 1997;7(5):R315-7. PubMed PMID: 9115381.

91. Zettler LA, Sogin ML, Caron DA. Phylogenetic relationships between the Acantharea and the Polycystinea: a molecular perspective on Haeckel's Radiolaria. Proc Natl Acad Sci U S A. 1997;94(21):11411-6. PubMed PMID: 9326623; PubMed Central PMCID: PMCPMC23483.

92. Sogin M. History assignment: when was the mitochondrion founded? Curr Opin Genet Dev. 1997;7(6):792-9. PubMed PMID: 9468789.

93. Zhou Q, Hinkle G, Sogin ML, Dionne VE. Phylogenetic analysis of olfactory receptor genes from mudpuppy (Necturus maculosus). Biol Bull. 1997;193(2):248-50. doi: 10.1086/BBLv193n2p248. PubMed PMID: 9390395.

94. Hinkle G, Morrison HG, Sogin ML. Genes coding for reverse transcriptase, DNA-directed RNA polymerase, and chitin synthase from the microsporidian Spraguea lophii. Biol Bull. 1997;193(2):250-1. doi: 10.1086/BBLv193n2p250. PubMed PMID: 9390396.

95. Roger AJ, Svard SG, Tovar J, Clark CG, Smith MW, Gillin FD, et al. A mitochondrial-like chaperonin 60 gene in Giardia lamblia: evidence that diplomonads once harbored an endosymbiont related to the progenitor of mitochondria. Proc Natl Acad Sci U S A. 1998;95(1):229-34. PubMed PMID: 9419358; PubMed Central PMCID: PMCPMC18184.

96. Sogin ML, Silberman JD. Evolution of the protists and protistan parasites from the perspective of molecular systematics. Int J Parasitol. 1998;28(1):11-20. PubMed PMID: 9504331.

97. Morrison HG, Weil EJ, Karchner SI, Sogin ML, Stegeman JJ. Molecular cloning of CYP1A from the estuarine fish Fundulus heteroclitus and phylogenetic analysis of CYP1 genes: update with new sequences. Comp Biochem Physiol C Pharmacol Toxicol Endocrinol. 1998;121(1-3):231-40. PubMed PMID: 9972465.

98. Edgcomb V, Viscogliosi E, Simpson AG, Delgado-Viscogliosi P, Roger AJ, Sogin ML. New Insights into the Phylogeny of Trichomonads Inferred from Small Subunit rRNA Sequences. Protist. 1998;149(4):359-66. doi: 10.1016/S1434-4610(98)70042-2. PubMed PMID: 23194718.

99. Smith MW, Aley SB, Sogin M, Gillin FD, Evans GA. Sequence survey of the Giardia lamblia genome. Mol Biochem Parasitol. 1998;95(2):267-80. PubMed PMID: 9803418.

100. Henze K, Morrison HG, Sogin ML, MullerM. Sequence and phylogenetic position of a class II aldolase gene in the amitochondriate protist, Giardia lamblia. Gene. 1998;222(2):163-8. PubMed PMID: 9831644.

101. Teske A, Sogin ML, Nielsen LP, Jannasch HW. Phylogenetic relationships of a large marine Beggiatoa. Syst Appl Microbiol. 1999;22(1):39-44. doi: 10.1016/S0723-2020(99)80026-5. PubMed PMID: 10188277.

102. Roger AJ, Morrison HG, Sogin ML. Primary structure and phylogenetic relationships of a malate dehydrogenase gene from Giardia lamblia. J Mol Evol. 1999;48(6):750-5. PubMed PMID: 10229579.

103. Zaman V, Zaki M, Howe J, Ng M, Leipe DD, Sogin ML, et al. Hyperamoeba isolated from human feces: Description and phylogenetic affinity. Eur J Protistol. 1999;35(2):197-207. PubMed PMID: WOS:000081659300010.

104. Sanchez LB, Morrison HG, Sogin ML, Muller M. Cloning and sequencing of an acetyl-CoA synthetase (ADP-forming) gene from the amitochondriate protist, Giardia lamblia. Gene. 1999;233(1-2):225-31. PubMed PMID: 10375639.

105. Silberman JD, Clark CG, Diamond LS, Sogin ML. Phylogeny of the genera Entamoeba and Endolimax as deduced from small-subunit ribosomal RNA sequences. Mol Biol Evol. 1999;16(12):1740-51. PubMed PMID: 10605115.

106. Orgel L, Hearn MA, Bada J, Baross J, Chapman C, Drake M, et al. Sample return from small solar system bodies. AdvSpace Research. 1999;25(1):239-48.

107. Delgado-Viscogliosi P, Viscogliosi E, Gerbod D, Kulda J, Sogin ML, Edgcomb VP. Molecular phylogeny of parabasalids based on small subunit rRNA sequences, with emphasis on the Trichomonadinae subfamily. J Eukaryot Microbiol. 2000;47(1):70-5. PubMed PMID: 10651299.

108. Wu G, McArthur AG, Fiser A, Sali A, Sogin ML, Mllerm M. Core histones of the amitochondriate protist, Giardia lamblia. Mol Biol Evol. 2000;17(8):1156-63. PubMed PMID: 10908635.

109. McArthur AG, Morrison HG, Nixon JE, Passamaneck NQ, Kim U, Hinkle G, et al. The Giardia genome project database. FEMS Microbiol Lett. 2000;189(2):271-3. PubMed PMID: 10930750.

110. Amaral Zettler LA, Nerad TA, O'Kelly CJ, Peglar MT, Gillevet PM, Silberman JD, et al. A molecular reassessment of the Leptomyxid amoebae. Protist. 2000;151(3):275-82. doi: 10.1078/1434-4610-00025. PubMed PMID: 11079772.

111. Bouzat JL, McNeil LK, Robertson HM, Solter LF, Nixon JE, Beever JE, et al. Phylogenomic analysis of the alpha proteasome gene family from early-diverging eukaryotes. J Mol Evol. 2000;51(6):532-43. PubMed PMID: 11116327.

112. Edgcomb VP, Roger AJ, Simpson AG, Kysela DT, Sogin ML. Evolutionary relationships among "jakobid" flagellates as indicated by alpha- and beta-tubulin phylogenies. Mol Biol Evol. 2001;18(4):514-22. PubMed PMID: 11264402.

113. Morrison HG, Roger AJ, Nystul TG, Gillin FD, Sogin ML. Giardia lamblia expresses a proteobacterial-like DnaK homolog. Mol Biol Evol. 2001;18(4):530-41. PubMed PMID: 11264404.

114. Zettler LAA, Nerad TA, O'Kelly CJ, Sogin ML. The nucleariid amoebae: more protists at the animal-fungal boundary. J Eukaryot Microbiol. 2001;48(3):293-7. PubMed PMID: 11411837.

115. Walker G, Simpson AGB, Edgcomb V, Sogin ML, Patterson DJ. Ultrastructural identities of Mastigamoeba punctachora, Mastigamoeba simplex and Mastigella commutans and assessment of hypotheses of relatedness of the pelobionts (Protista). Eur J Protistol. 2001;37(1):25-49. doi: Doi 10.1078/0932-4739-00780. PubMed PMID: WOS:000169188200003.

116. Barbieri E, Paster BJ, Hughes D, Zurek L, Moser DP, Teske A, et al. Phylogenetic characterization of epibiotic bacteria in the accessory nidamental gland and egg capsules of the squid Loligo pealei (Cephalopoda:Loliginidae). Environ Microbiol. 2001;3(3):151-67. PubMed PMID: 11321532.

117. Medina M, Collins AG, Silberman JD, Sogin ML. Evaluating hypotheses of basal animal phylogeny using complete sequences of large and small subunit rRNA. Proc Natl Acad Sci U S A. 2001;98(17):9707-12. doi: 10.1073/pnas.171316998. PubMed PMID: 11504944; PubMed Central PMCID: PMCPMC55517.

118. McArthur AG, Knodler LA, Silberman JD, Davids BJ, Gillin FD, Sogin ML. The evolutionary origins of eukaryotic protein disulfide isomerase domains: new evidence from the Amitochondriate protist Giardia lamblia. Mol Biol Evol. 2001;18(8):1455-63. PubMed PMID: 11470836.

119. Gerbod D, Edgcomb VP, Noel C, Vanacova S, Wintjens R, Tachezy J, et al. Phylogenetic relationships of class II fumarase genes from trichomonad species. Mol Biol Evol. 2001;18(8):1574-84. PubMed PMID: 11470849.

120. Gerbod D, Edgcomb VP, Noel C, Zenner L, Wintjens R, Delgado-Viscogliosi P, et al. Phylogenetic position of the trichomonad parasite of turkeys, Histomonas meleagridis (Smith) Tyzzer, inferred from small subunit rRNA sequence. J Eukaryot Microbiol. 2001;48(4):498-504. PubMed PMID: 11456328.

121. Karpov SS, Sogin ML, Silberman JD. Rootlet homology, taxonomy, and phylogeny of bicosoecids based on 18S rRNA gene sequences. Protistology. 2001;2(1):34-47.

122. Podar M, Haddock SH, Sogin ML, Harbison GR. A molecular phylogenetic framework for the phylum Ctenophora using 18S rRNA genes. Mol Phylogenet Evol. 2001;21(2):218-30. doi: 10.1006/mpev.2001.1036. PubMed PMID: 11697917.

123. Nixon JE, Wang A, Field J, Morrison HG, McArthur AG, Sogin ML, et al. Evidence for lateral transfer of genes encoding ferredoxins, nitroreductases, NADH oxidase, and alcohol dehydrogenase 3 from anaerobic prokaryotes to Giardia lamblia and Entamoeba histolytica. Eukaryot Cell. 2002;1(2):181-90. PubMed PMID: 12455953; PubMed Central PMCID: PMCPMC118039.

124. Nixon JE, Wang A, Morrison HG, McArthur AG, Sogin ML, Loftus BJ, et al. A spliceosomal intron in Giardia lamblia. Proc Natl Acad Sci U S A. 2002;99(6):3701-5. doi: 10.1073/pnas.042700299. PubMed PMID: 11854456; PubMed Central PMCID: PMCPMC122587.

125. Gerbod D, Noel C, Dolan MF, Edgcomb VP, Kitade O, Noda S, et al. Molecular phylogeny of parabasalids inferred from small subunit rRNA sequences, with emphasis on the Devescovinidae and Calonymphidae (Trichomonadea). Mol Phylogenet Evol. 2002;25(3):545-56. PubMed PMID: 12450758.

126. Teske A, Hinrichs KU, Edgcomb V, de Vera Gomez A, Kysela D, Sylva SP, et al. Microbial diversity of hydrothermal sediments in the Guaymas Basin: evidence for anaerobic methanotrophic communities. Appl Environ Microbiol. 2002;68(4):1994-2007. PubMed PMID: 11916723; PubMed Central PMCID: PMCPMC123873.

127. Amaral Zettler LA, Gomez F, Zettler E, Keenan BG, Amils R, Sogin ML. Microbiology: eukaryotic diversity in Spain's River of Fire. Nature. 2002;417(6885):137. doi: 10.1038/417137a. PubMed PMID: 12000949.

128. Edgcomb VP, Kysela DT, Teske A, de Vera Gomez A, Sogin ML. Benthic eukaryotic diversity in the Guaymas Basin hydrothermal vent environment. Proc Natl Acad Sci U S A. 2002;99(11):7658-62. doi: 10.1073/pnas.062186399. PubMed PMID: 12032339; PubMed Central PMCID: PMCPMC124314.

129. Edgcomb VP, Simpson AG, Zettler LA, Nerad TA, Patterson DJ, Holder ME, et al. Pelobionts are degenerate protists: insights from molecules and morphology. Mol Biol Evol. 2002;19(6):978-82. PubMed PMID: 12032256.

130. Langford TD, Silberman JD, Weiland ME, Svard SG, McCaffery JM, Sogin ML, et al. Giardia lamblia: identification and characterization of Rab and GDI proteins in a genome survey of the ER to Golgi endomembrane system. Exp Parasitol. 2002;101(1):13-24. PubMed PMID: 12243734.

131. Simpson AG, Roger AJ, Silberman JD, Leipe DD, Edgcomb VP, Jermiin LS, et al. Evolutionary history of "early-diverging" eukaryotes: the excavate taxon Carpediemonas is a close relative of Giardia. Mol Biol Evol. 2002;19(10):1782-91. PubMed PMID: 12270904.

132. Morrison HG, Zamora G, Campbell RK, Sogin ML. Inferring protein function from genomic sequence: Giardia lamblia expresses a phosphatidylinositol kinase-related kinase similar to yeast and mammalian TOR. Comp Biochem Physiol B Biochem Mol Biol. 2002;133(4):477-91. PubMed PMID: 12470813.

133. Podar M, Mullineaux L, Huang HR, Perlman PS, Sogin ML. Bacterial group II introns in a deep-sea hydrothermal vent environment. Appl Environ Microbiol. 2002;68(12):6392-8. PubMed PMID: 12450865; PubMed Central PMCID: PMCPMC134447.

134. Nixon JE, Field J, McArthur AG, Sogin ML, Yarlett N, Loftus BJ, et al. Iron-dependent hydrogenases of Entamoeba histolytica and Giardia lamblia: activity of the recombinant entamoebic enzyme and evidence for lateral gene transfer. Biol Bull. 2003;204(1):1-9. doi: 10.2307/1543490. PubMed PMID: 12588739.

135. Amaral Zettler LA, Messerli MA, Laatsch AD, Smith PJ, Sogin ML. From genes to genomes: beyond biodiversity in Spain's Rio Tinto. Biol Bull. 2003;204(2):205-9. doi: 10.2307/1543560. PubMed PMID: 12700155.

136. Dhillon A, Teske A, Dillon J, Stahl DA, Sogin ML. Molecular characterization of sulfate-reducing bacteria in the Guaymas Basin. Appl Environ Microbiol. 2003;69(5):2765-72. PubMed PMID: 12732547; PubMed Central PMCID: PMCPMC154542.

137. Noel C, Peyronnet C, Gerbod D, Edgcomb VP, Delgado-Viscogliosi P, Sogin ML, et al. Phylogenetic analysis of Blastocystis isolates from different hosts based on the comparison of small-subunit rRNA gene sequences. Mol Biochem Parasitol. 2003;126(1):119-23. PubMed PMID: 12554093.

138. Teske A, Dhillon A, Sogin ML. Genomic markers of ancient anaerobic microbial pathways: sulfate reduction, methanogenesis, and methane oxidation. Biol Bull. 2003;204(2):186-91. doi: 10.2307/1543556. PubMed PMID: 12700151.

139. Peglar MT, Amaral Zettler LA, Anderson OR, Nerad TA, Gillevet PM, Mullen TE, et al. Two new small-subunit ribosomal RNA gene lineages within the subclass gymnamoebia. J Eukaryot Microbiol. 2003;50(3):224-32. PubMed PMID: 12836881.

140. Seshadri V, McArthur AG, Sogin ML, Adam RD. Giardia lamblia RNA polymerase II: amanitin-resistant transcription. J Biol Chem. 2003;278(30):27804-10. doi: 10.1074/jbc.M303316200. PubMed PMID: 12734189.

141. O'Kelly CJ, Silberman JD, Amaral Zettler LA, Nerad TA, Sogin ML. Monopylocystis visvesvarai n. gen., n. sp. and Sawyeria marylandensis n. gen., n. sp.: two new amitochondrial heterolobosean amoebae from anoxic environments. Protist. 2003;154(2):281-90. doi: 10.1078/143446103322166563. PubMed PMID: 13677454.

142. Walker G, Silberman JD, Karpov SA, Preisfeld A, Foster P, Frolov AO, et al. An ultrastructural and molecular study of Hyperamoeba dachnaya, n. sp., and its relationship to the mycetozoan slime moulds. Eur J Protistol. 2003;39(3):319-36. doi: Doi 10.1078/0932-4739-00906. PubMed PMID: WOS:000186365500008.

143. Medina M, Collins AG, Taylor JW, Valentine JW, Lipps JH, Amaral-Zettler LA, et al. Phylogeny of Opisthokonta and the evolution of multicellularity and complexity in Fungi and Metazoa. International Journal of Astrobiology. 2003;2(3):203-11.

144. Crump BC, Hopkinson CS, Sogin ML, Hobbie JE. Microbial biogeography along an estuarine salinity gradient: combined influences of bacterial growth and residence time. Appl Environ Microbiol. 2004;70(3):1494-505. PubMed PMID: 15006771; PubMed Central PMCID: PMCPMC365029.

145. Powell WH, Morrison HG, Weil EJ, Karchner SI, Sogin ML, Stegeman JJ, et al. Cloning and analysis of the CYP1A promoter from the atlantic killifish (Fundulus heteroclitus). Mar Environ Res. 2004;58(2-5):119-24. doi: 10.1016/j.marenvres.2004.03.005. PubMed PMID: 15178023.

146. Best AA, Morrison HG, McArthur AG, Sogin ML, Olsen GJ. Evolution of eukaryotic transcription: insights from the genome of Giardia lamblia. Genome Res. 2004;14(8):1537-47. doi: 10.1101/gr.2256604. PubMed PMID: 15289474; PubMed Central PMCID: PMCPMC509262.

147. Silva-Pinhati AC, Bacci M, Jr., Hinkle G, Sogin ML, Pagnocca FC, Martins VG, et al. Low variation in ribosomal DNA and internal transcribed spacers of the symbiotic fungi of leaf-cutting ants (Attini: Formicidae). Braz J Med Biol Res. 2004;37(10):1463-72. doi: /S0100-879X2004001000004. PubMed PMID: 15448866.

148. Kysela DT, Palacios C, Sogin ML. Serial analysis of V6 ribosomal sequence tags (SARST-V6): a method for efficient, high-throughput analysis of microbial community composition. Environ Microbiol. 2005;7(3):356-64. doi: 10.1111/j.1462-2920.2004.00712.x. PubMed PMID: 15683396.

149. Noel C, Dufernez F, Gerbod D, Edgcomb VP, Delgado-Viscogliosi P, Ho LC, et al. Molecular phylogenies of Blastocystis isolates from different hosts: implications for genetic diversity, identification of species, and zoonosis. J Clin Microbiol. 2005;43(1):348-55. doi: 10.1128/JCM.43.1.348-355.2005. PubMed PMID: 15634993; PubMed Central PMCID: PMCPMC540115.

150. Dhillon A, Goswami S, Riley M, Teske A, Sogin M. Domain evolution and functional diversification of sulfite reductases. Astrobiology. 2005;5(1):18-29. doi: 10.1089/ast.2005.5.18. PubMed PMID: 15711167.

151. Weiland ME, McArthur AG, Morrison HG, Sogin ML, Svard SG. Annexin-like alpha giardins: a new cytoskeletal gene family in Giardia lamblia. Int J Parasitol. 2005;35(6):617-26. doi: 10.1016/j.ijpara.2004.12.009. PubMed PMID: 15862575.

152. Messerli MA, Amaral-Zettler LA, Zettler E, Jung SK, Smith PJ, Sogin ML. Life at acidic pH imposes an increased energetic cost for a eukaryotic acidophile. J Exp Biol. 2005;208(Pt 13):2569-79. doi: 10.1242/jeb.01660. PubMed PMID: 15961743.

153. Bahr M, Crump BC, Klepac-Ceraj V, Teske A, Sogin ML, Hobbie JE. Molecular characterization of sulfate-reducing bacteria in a New England salt marsh. Environ Microbiol. 2005;7(8):1175-85. doi: 10.1111/j.1462-2920.2005.00796.x. PubMed PMID: 16011754.

154. Dhillon A, Lever M, Lloyd KG, Albert DB, Sogin ML, Teske A. Methanogen diversity evidenced by molecular characterization of methyl coenzyme M reductase A (mcrA) genes in hydrothermal sediments of the Guaymas Basin. Appl Environ Microbiol. 2005;71(8):4592-601. doi: 10.1128/AEM.71.8.4592-4601.2005. PubMed PMID: 16085853; PubMed Central PMCID: PMCPMC1183284.

155. Bach W, Edwards KJ, Hayes JM, Huber JA, Sievert SM, Sogin ML. Energy in the Dark: Fuel for Life in the Deep Ocean and Beyond. Eos. 2006;87(7):73-8.

156. D'Andrea WD, Lage M, Martiny JBH, Laatsch AD, Amaral Zettler LA, Sogin ML, et al. Alkenone producers inferred from well-preserved 18S rDNA in Greenland lake sediments. . Journal of Geophysical Research 2006;111:G03013. doi: 10.1029/2005JG000121.

157. Biddle JF, Lipp JS, Lever MA, Lloyd KG, Sorensen KB, Anderson R, et al. Heterotrophic Archaea dominate sedimentary subsurface ecosystems off Peru. Proc Natl Acad Sci U S A. 2006;103(10):3846-51. doi: 10.1073/pnas.0600035103. PubMed PMID: 16505362; PubMed Central PMCID: PMCPMC1533785.

158. Ley RE, Harris JK, Wilcox J, Spear JR, Miller SR, Bebout BM, et al. Unexpected diversity and complexity of the Guerrero Negro hypersaline microbial mat. Appl Environ Microbiol. 2006;72(5):3685-95. doi: 10.1128/AEM.72.5.3685-3695.2006. PubMed PMID: 16672518; PubMed Central PMCID: PMCPMC1472358.

159. Sogin ML, Morrison HG, Huber JA, Mark Welch D, Huse SM, Neal PR, et al. Microbial diversity in the deep sea and the underexplored "rare biosphere". Proc Natl Acad Sci U S A. 2006;103(32):12115-20. doi: 10.1073/pnas.0605127103. PubMed PMID: 16880384; PubMed Central PMCID: PMCPMC1524930.

160. Huse SM, Huber JA, Morrison HG, Sogin ML, Welch DM. Accuracy and quality of massively parallel DNA pyrosequencing. Genome Biol. 2007;8(7):R143. doi: 10.1186/gb-2007-8-7-r143. PubMed PMID: 17659080; PubMed Central PMCID: PMCPMC2323236.

161. Morrison HG, McArthur AG, Gillin FD, Aley SB, Adam RD, Olsen GJ, et al. Genomic minimalism in the early diverging intestinal parasite Giardia lamblia. Science. 2007;317(5846):1921-6. doi: 10.1126/science.1143837. PubMed PMID: 17901334.

162. Huber JA, Mark Welch DB, Morrison HG, Huse SM, Neal PR, Butterfield DA, et al. Microbial population structures in the deep marine biosphere. Science. 2007;318(5847):97-100. doi: 10.1126/science.1146689. PubMed PMID: 17916733.

163. D'Hondt S, Inagaki F, Ferdelman T, Barker Jørgensen B, Kato B, Kato K, et al. Exploring Subseafloor Life with the Integrated Ocean Drilling Program. Scientific Drilling 2007;5:26-37.

164. Santelli CM, Orcutt BN, Banning E, Bach W, Moyer CL, Sogin ML, et al. Abundance and diversity of microbial life in ocean crust. Nature. 2008;453(7195):653-6. doi: 10.1038/nature06899. PubMed PMID: 18509444.

165. Lasek-Nesselquist E, Bogomolni AL, Gast RJ, Welch DM, Ellis JC, Sogin ML, et al. Molecular characterization of Giardia intestinalis haplotypes in marine animals: variation and zoonotic potential. Dis Aquat Organ. 2008;81(1):39-51. doi: 10.3354/dao01931. PubMed PMID: 18828561.

166. Dethlefsen L, Huse S, Sogin ML, Relman DA. The pervasive effects of an antibiotic on the human gut microbiota, as revealed by deep 16S rRNA sequencing. PLoS Biol. 2008;6(11):e280. doi: 10.1371/journal.pbio.0060280. PubMed PMID: 19018661; PubMed Central PMCID: PMCPMC2586385.

167. Huse SM, Dethlefsen L, Huber JA, Mark Welch D, Relman DA, Sogin ML. Exploring microbial diversity and taxonomy using SSU rRNA hypervariable tag sequencing. PLoS Genet. 2008;4(11):e1000255. doi: 10.1371/journal.pgen.1000255. PubMed PMID: 19023400; PubMed Central PMCID: PMCPMC2577301.

168. Turnbaugh PJ, Hamady M, Yatsunenko T, Cantarel BL, Duncan A, Ley RE, et al. A core gut microbiome in obese and lean twins. Nature. 2009;457(7228):480-4. doi: 10.1038/nature07540. PubMed PMID: 19043404; PubMed Central PMCID: PMCPMC2677729.

169. Turanov AA, Lobanov AV, Fomenko DE, Morrison HG, Sogin ML, Klobutcher LA, et al. Genetic code supports targeted insertion of two amino acids by one codon. Science. 2009;323(5911):259-61. doi: 10.1126/science.1164748. PubMed PMID: 19131629; PubMed Central PMCID: PMCPMC3088105.

170. Huber JA, Morrison HG, Huse SM, Neal PR, Sogin ML, Mark Welch DB. Effect of PCR amplicon size on assessments of clone library microbial diversity and community structure. Environ Microbiol. 2009;11(5):1292-302. doi: 10.1111/j.1462-2920.2008.01857.x. PubMed PMID: 19220394; PubMed Central PMCID: PMCPMC2716130.

171. Antonopoulos DA, Huse SM, Morrison HG, Schmidt TM, Sogin ML, Young VB. Reproducible community dynamics of the gastrointestinal microbiota following antibiotic perturbation. Infect Immun. 2009;77(6):2367-75. doi: 10.1128/IAI.01520-08. PubMed PMID: 19307217; PubMed Central PMCID: PMCPMC2687343.

172. Lasek-Nesselquist E, Welch DM, Thompson RC, Steuart RF, Sogin ML. Genetic exchange within and between assemblages of Giardia duodenalis. J Eukaryot Microbiol. 2009;56(6):504-18. doi: 10.1111/j.1550-7408.2009.00443.x. PubMed PMID: 19883439.

173. Bodaker I, Sharon I, Suzuki MT, Feingersch R, Shmoish M, Andreishcheva E, et al. Comparative community genomics in the Dead Sea: an increasingly extreme environment. ISME J. 2010;4(3):399-407. doi: 10.1038/ismej.2009.141. PubMed PMID: 20033072.

174. McLellan SL, Huse SM, Mueller-Spitz SR, Andreishcheva EN, Sogin ML. Diversity and population structure of sewage-derived microorganisms in wastewater treatment plant influent. Environ Microbiol. 2010;12(2):378-92. doi: 10.1111/j.1462-2920.2009.02075.x. PubMed PMID: 19840106; PubMed Central PMCID: PMCPMC2868101.

175. Brazelton WJ, Sogin ML, Baross JA. Multiple scales of diversification within natural populations of archaea in hydrothermal chimney biofilms. Environ Microbiol Rep. 2010;2(2):236-42. doi: 10.1111/j.1758-2229.2009.00097.x. PubMed PMID: 23766074.

176. Hasegawa Y, Welch JLM, Valm AM, Rieken C, Sogin ML, Borisy GG. Imaging Marine Bacteria with Unique 16S rRNA V6 Sequences by Fluorescence in situ Hybridization and Spectral Analysis. Geomicrobiol J. 2010;27(3):251-60. doi: Pii 922060090

10.1080/01490450903456806. PubMed PMID: WOS:000277486500005.

177. Parfrey LW, Grant J, Tekle YI, Lasek-Nesselquist E, Morrison HG, Sogin ML, et al. Broadly sampled multigene analyses yield a well-resolved eukaryotic tree of life. Syst Biol. 2010;59(5):518-33. doi: 10.1093/sysbio/syq037. PubMed PMID: 20656852; PubMed Central PMCID: PMCPMC2950834.

178. Brazelton WJ, Ludwig KA, Sogin ML, Andreishcheva EN, Kelley DS, Shen CC, et al. Archaea and bacteria with surprising microdiversity show shifts in dominance over 1,000-year time scales in hydrothermal chimneys. Proc Natl Acad Sci U S A. 2010;107(4):1612-7. doi: 10.1073/pnas.0905369107. PubMed PMID: 20080654; PubMed Central PMCID: PMCPMC2824366.

179. Huse SM, Welch DM, Morrison HG, Sogin ML. Ironing out the wrinkles in the rare biosphere through improved OTU clustering. Environ Microbiol. 2010;12(7):1889-98. doi: 10.1111/j.1462-2920.2010.02193.x. PubMed PMID: 20236171; PubMed Central PMCID: PMCPMC2909393.

180. Lasek-Nesselquist E, Welch DM, Sogin ML. The identification of a new Giardia duodenalis assemblage in marine vertebrates and a preliminary analysis of G. duodenalis population biology in marine systems. Int J Parasitol. 2010;40(9):1063-74. doi: 10.1016/j.ijpara.2010.02.015. PubMed PMID: 20361967; PubMed Central PMCID: PMCPMC2900473.

181. Huber JA, Cantin HV, Huse SM, Welch DB, Sogin ML, Butterfield DA. Isolated communities of Epsilonproteobacteria in hydrothermal vent fluids of the Mariana Arc seamounts. FEMS Microbiol Ecol. 2010;73(3):538-49. doi: 10.1111/j.1574-6941.2010.00910.x. PubMed PMID: 20533947.

182. Agogue H, Lamy D, Neal PR, Sogin ML, Herndl GJ. Water mass-specificity of bacterial communities in the North Atlantic revealed by massively parallel sequencing. Molecular Ecology. 2011;20(2):258-74. doi: 10.1111/j.1365-294X.2010.04932.x. PubMed PMID: WOS:000285970200008.

183. Bowen JL, Ward BB, Morrison HG, Hobbie JE, Valiela I, Deegan LA, et al. Microbial community composition in sediments resists perturbation by nutrient enrichment. ISME J. 2011;5(9):1540-8. doi: 10.1038/ismej.2011.22. PubMed PMID: 21412346; PubMed Central PMCID: PMCPMC3160680.

184. Valm AM, Mark Welch JL, Rieken CW, Hasegawa Y, Sogin ML, Oldenbourg R, et al. Systems-level analysis of microbial community organization through combinatorial

labeling and spectral imaging. Proc Natl Acad Sci U S A. 2011;108(10):4152-7. doi: 10.1073/pnas.1101134108. PubMed PMID: 21325608; PubMed Central PMCID: PMCPMC3054005.

185. Zinger L, Amaral-Zettler LA, Fuhrman JA, Horner-Devine MC, Huse SM, Welch DB, et al. Global patterns of bacterial beta-diversity in seafloor and seawater ecosystems. PLoS One. 2011;6(9):e24570. doi: 10.1371/journal.pone.0024570. PubMed PMID: 21931760; PubMed Central PMCID: PMCPMC3169623.

186. Shanks OC, Kelty CA, Archibeque S, Jenkins M, Newton RJ, McLellan SL, et al. Community structures of fecal bacteria in cattle from different animal feeding operations. Appl Environ Microbiol. 2011;77(9):2992-3001. doi: 10.1128/AEM.02988-10. PubMed PMID: 21378055; PubMed Central PMCID: PMCPMC3126396.

187. Gobet A, Boer SI, Huse SM, van Beusekom JE, Quince C, Sogin ML, et al. Diversity and dynamics of rare and of resident bacterial populations in coastal sands. ISME J. 2012;6(3):542-53. doi: 10.1038/ismej.2011.132. PubMed PMID: 21975598; PubMed Central PMCID: PMCPMC3280144.

188. Freitas S, Hatosy S, Fuhrman JA, Huse SM, Welch DB, Sogin ML, et al. Global distribution and diversity of marine Verrucomicrobia. ISME J. 2012;6(8):1499-505. doi: 10.1038/ismej.2012.3. PubMed PMID: 22318305; PubMed Central PMCID: PMCPMC3400412.

189. Vandewalle JL, Goetz GW, Huse SM, Morrison HG, Sogin ML, Hoffmann RG, et al. Acinetobacter, Aeromonas and Trichococcus populations dominate the microbial community within urban sewer infrastructure. Environ Microbiol. 2012;14(9):2538-52. doi: 10.1111/j.1462-2920.2012.02757.x. PubMed PMID: 22524675; PubMed Central PMCID: PMCPMC3427404.

190. Bowen JL, Morrison HG, Hobbie JE, Sogin ML. Salt marsh sediment diversity: a test of the variability of the rare biosphere among environmental replicates. ISME J. 2012;6(11):2014-23. doi: 10.1038/ismej.2012.47. PubMed PMID: 22739491; PubMed Central PMCID: PMCPMC3475368.

191. Madan JC, Koestler DC, Stanton BA, Davidson L, Moulton LA, Housman ML, et al. Serial analysis of the gut and respiratory microbiome in cystic fibrosis in infancy: interaction between intestinal and respiratory tracts and impact of nutritional exposures. MBio. 2012;3(4). doi: 10.1128/mBio.00251-12. PubMed PMID: 22911969; PubMed Central PMCID: PMCPMC3428694.

192. Filkins LM, Hampton TH, Gifford AH, Gross MJ, Hogan DA, Sogin ML, et al. Prevalence of streptococci and increased polymicrobial diversity associated with cystic fibrosis patient stability. J Bacteriol. 2012;194(17):4709-17. doi: 10.1128/JB.00566-12. PubMed PMID: 22753064; PubMed Central PMCID: PMCPMC3415522.

193. Madan JC, Salari RC, Saxena D, Davidson L, O'Toole GA, Moore JH, et al. Gut microbial colonisation in premature neonates predicts neonatal sepsis. Arch Dis Child Fetal Neonatal Ed. 2012;97(6):F456-62. doi: 10.1136/fetalneonatal-2011-301373. PubMed PMID: 22562869; PubMed Central PMCID: PMCPMC3724360.

194. Siam R, Mustafa GA, Sharaf H, Moustafa A, Ramadan AR, Antunes A, et al. Unique prokaryotic consortia in geochemically distinct sediments from Red Sea Atlantis II and discovery deep brine pools. PLoS One. 2012;7(8):e42872. doi:

10.1371/journal.pone.0042872. PubMed PMID: 22916172; PubMed Central PMCID: PMCPMC3423430.

195. Amend AS, Oliver TA, Amaral-Zettler LA, Boetius A, Fuhrman JA, Horner-Devine MC, et al. Macroecological patterns of marine bacteria on a global scale. J Biogeogr. 2013;40(4):800-11. doi: 10.1111/jbi.12034. PubMed PMID: WOS:000316325500016.

196. Sul WJ, Oliver TA, Ducklow HW, Amaral-Zettler LA, Sogin ML. Marine bacteria exhibit a bipolar distribution. Proc Natl Acad Sci U S A. 2013;110(6):2342-7. doi: 10.1073/pnas.1212424110. PubMed PMID: 23324742; PubMed Central PMCID: PMCPMC3568360.

197. McLellan SL, Newton RJ, Vandewalle JL, Shanks OC, Huse SM, Eren AM, et al. Sewage reflects the distribution of human faecal Lachnospiraceae. Environ Microbiol. 2013;15(8):2213-27. doi: 10.1111/1462-2920.12092. PubMed PMID: 23438335; PubMed Central PMCID: PMCPMC4043349.

198. Vital M, Penton CR, Wang Q, Young VB, Antonopoulos DA, Sogin ML, et al. A gene-targeted approach to investigate the intestinal butyrate-producing bacterial community. Microbiome. 2013;1(1):8. doi: 10.1186/2049-2618-1-8. PubMed PMID: 24451334; PubMed Central PMCID: PMCPMC4126176.

199. Shanks OC, Newton RJ, Kelty CA, Huse SM, Sogin ML, McLellan SL. Comparison of the microbial community structures of untreated wastewaters from different geographic locales. Appl Environ Microbiol. 2013;79(9):2906-13. doi: 10.1128/AEM.03448-12. PubMed PMID: 23435885; PubMed Central PMCID: PMCPMC3623150.

200. Newton RJ, Bootsma MJ, Morrison HG, Sogin ML, McLellan SL. A microbial signature approach to identify fecal pollution in the waters off an urbanized coast of Lake Michigan. Microb Ecol. 2013;65(4):1011-23. doi: 10.1007/s00248-013-0200-9. PubMed PMID: 23475306; PubMed Central PMCID: PMCPMC4084971.

201. Young VB, Raffals LH, Huse SM, Vital M, Dai D, Schloss PD, et al. Multiphasic analysis of the temporal development of the distal gut microbiota in patients following ileal pouch anal anastomosis. Microbiome. 2013;1(1):9. doi: 10.1186/2049-2618-1-9. PubMed PMID: 24451366; PubMed Central PMCID: PMCPMC3971607.

202. Eren AM, Vineis JH, Morrison HG, Sogin ML. A filtering method to generate high quality short reads using illumina paired-end technology. PLoS One. 2013;8(6):e66643. doi: 10.1371/journal.pone.0066643. PubMed PMID: 23799126; PubMed Central PMCID: PMCPMC3684618.

203. Eren AM, Maignien L, Sul WJ, Murphy LG, Grim SL, Morrison HG, et al. Oligotyping: Differentiating between closely related microbial taxa using 16S rRNA gene data. Methods Ecol Evol. 2013;4(12). doi: 10.1111/2041-210X.12114. PubMed PMID: 24358444; PubMed Central PMCID: PMCPMC3864673.

204. Price KE, Hampton TH, Gifford AH, Dolben EL, Hogan DA, Morrison HG, et al. Unique microbial communities persist in individual cystic fibrosis patients throughout a clinical exacerbation. Microbiome. 2013;1(1):27. doi: 10.1186/2049-2618-1-27. PubMed PMID: 24451123; PubMed Central PMCID: PMCPMC3971630.

205. Newton RJ, Huse SM, Morrison HG, Peake CS, Sogin ML, McLellan SL. Shifts in the microbial community composition of Gulf Coast beaches following beach oiling. PLoS

One. 2013;8(9):e74265. doi: 10.1371/journal.pone.0074265. PubMed PMID: 24040219; PubMed Central PMCID: PMCPMC3769389.

206. Eren AM, Morrison HG, Huse SM, Sogin ML. DRISEE overestimates errors in metagenomic sequencing data. Brief Bioinform. 2014;15(5):783-7. doi: 10.1093/bib/bbt010. PubMed PMID: 23698723; PubMed Central PMCID: PMCPMC4171678.

207. Glass EM, Dribinsky Y, Yilmaz P, Levin H, Van Pelt R, Wendel D, et al. MIxS-BE: a MIxS extension defining a minimum information standard for sequence data from the built environment. ISME J. 2014;8(1):1-3. doi: 10.1038/ismej.2013.176. PubMed PMID: 24152717; PubMed Central PMCID: PMCPMC3869023.

208. Reveillaud J, Maignien L, Murat Eren A, Huber JA, Apprill A, Sogin ML, et al. Host-specificity among abundant and rare taxa in the sponge microbiome. ISME J. 2014;8(6):1198-209. doi: 10.1038/ismej.2013.227. PubMed PMID: 24401862; PubMed Central PMCID: PMCPMC4030224.

209. Huse SM, Mark Welch DB, Voorhis A, Shipunova A, Morrison HG, Eren AM, et al. VAMPS: a website for visualization and analysis of microbial population structures. BMC Bioinformatics. 2014;15:41. doi: 10.1186/1471-2105-15-41. PubMed PMID: 24499292; PubMed Central PMCID: PMCPMC3922339.

210. Huse SM, Young VB, Morrison HG, Antonopoulos DA, Kwon J, Dalal S, et al. Comparison of brush and biopsy sampling methods of the ileal pouch for assessment of mucosa-associated microbiota of human subjects. Microbiome. 2014;2(1):5. doi: 10.1186/2049-2618-2-5. PubMed PMID: 24529162; PubMed Central PMCID: PMCPMC3931571.

211. Gifford AH, Alexandru DM, Li Z, Dorman DB, Moulton LA, Price KE, et al. Iron supplementation does not worsen respiratory health or alter the sputum microbiome in cystic fibrosis. J Cyst Fibros. 2014;13(3):311-8. doi: 10.1016/j.jcf.2013.11.004. PubMed PMID: 24332997; PubMed Central PMCID: PMCPMC3972336.

212. Maltz MA, Bomar L, Lapierre P, Morrison HG, McClure EA, Sogin ML, et al. Metagenomic analysis of the medicinal leech gut microbiota. Front Microbiol. 2014;5:151. doi: 10.3389/fmicb.2014.00151. PubMed PMID: 24860552; PubMed Central PMCID: PMCPMC4029005.

213. Halliday E, McLellan SL, Amaral-Zettler LA, Sogin ML, Gast RJ. Comparison of bacterial communities in sands and water at beaches with bacterial water quality violations. PLoS One. 2014;9(3):e90815. doi: 10.1371/journal.pone.0090815. PubMed PMID: 24599478; PubMed Central PMCID: PMCPMC3944938.

214. Hampton TH, Green DM, Cutting GR, Morrison HG, Sogin ML, Gifford AH, et al. The microbiome in pediatric cystic fibrosis patients: the role of shared environment suggests a window of intervention. Microbiome. 2014;2:14. doi: 10.1186/2049-2618-2-14. PubMed PMID: 25071935; PubMed Central PMCID: PMCPMC4113139.

215. Anderson RE, Sogin ML, Baross JA. Evolutionary strategies of viruses, bacteria and archaea in hydrothermal vent ecosystems revealed through metagenomics. PLoS One. 2014;9(10):e109696. doi: 10.1371/journal.pone.0109696. PubMed PMID: 25279954; PubMed Central PMCID: PMCPMC4184897.

216. Ferreira AJ, Siam R, Setubal JC, Moustafa A, Sayed A, Chambergo FS, et al. Core microbial functional activities in ocean environments revealed by global metagenomic profiling analyses. PLoS One. 2014;9(6):e97338. doi: 10.1371/journal.pone.0097338. PubMed PMID: 24921648; PubMed Central PMCID: PMCPMC4055538.

217. Kyrpides NC, Hugenholtz P, Eisen JA, Woyke T, Goker M, Parker CT, et al. Genomic encyclopedia of bacteria and archaea: sequencing a myriad of type strains. PLoS Biol. 2014;12(8):e1001920. doi: 10.1371/journal.pbio.1001920. PubMed PMID: 25093819; PubMed Central PMCID: PMCPMC4122341.

218. Willger SD, Grim SL, Dolben EL, Shipunova A, Hampton TH, Morrison HG, et al. Characterization and quantification of the fungal microbiome in serial samples from individuals with cystic fibrosis. Microbiome. 2014;2:40. doi: 10.1186/2049-2618-2-40. PubMed PMID: 25408892; PubMed Central PMCID: PMCPMC4236224.

219. Celaj S, Gleeson MW, Deng J, O'Toole GA, Hampton TH, Toft MF, et al. The microbiota regulates susceptibility to Fas-mediated acute hepatic injury. Lab Invest. 2014;94(9):938-49. doi: 10.1038/labinvest.2014.93. PubMed PMID: 25068658; PubMed Central PMCID: PMCPMC4152405.

220. Eren AM, Sogin ML, Morrison HG, Vineis JH, Fisher JC, Newton RJ, et al. A single genus in the gut microbiome reflects host preference and specificity. ISME J. 2015;9(1):90-100. doi: 10.1038/ismej.2014.97. PubMed PMID: 24936765; PubMed Central PMCID: PMCPMC4274434.

221. Hoen AG, Li J, Moulton LA, O'Toole GA, Housman ML, Koestler DC, et al. Associations between Gut Microbial Colonization in Early Life and Respiratory Outcomes in Cystic Fibrosis. J Pediatr. 2015;167(1):138-47 e1-3. doi: 10.1016/j.jpeds.2015.02.049. PubMed PMID: 25818499; PubMed Central PMCID: PMCPMC4674690.

222. Eren AM, Morrison HG, Lescault PJ, Reveillaud J, Vineis JH, Sogin ML. Minimum entropy decomposition: unsupervised oligotyping for sensitive partitioning of high-throughput marker gene sequences. ISME J. 2015;9(4):968-79. doi: 10.1038/ismej.2014.195. PubMed PMID: 25325381; PubMed Central PMCID: PMCPMC4817710.

223. Anderson RE, Sogin ML, Baross JA. Biogeography and ecology of the rare and abundant microbial lineages in deep-sea hydrothermal vents. FEMS Microbiol Ecol. 2015;91(1):1-11. doi: 10.1093/femsec/fiu016. PubMed PMID: 25764538.

224. Newton RJ, McLellan SL, Dila DK, Vineis JH, Morrison HG, Eren AM, et al. Sewage reflects the microbiomes of human populations. MBio. 2015;6(2):e02574. doi: 10.1128/mBio.02574-14. PubMed PMID: 25714718; PubMed Central PMCID: PMCPMC4358014.

225. Fisher JC, Eren AM, Green HC, Shanks OC, Morrison HG, Vineis JH, et al. Comparison of Sewage and Animal Fecal Microbiomes by Using Oligotyping Reveals Potential Human Fecal Indicators in Multiple Taxonomic Groups. Appl Environ Microbiol. 2015;81(20):7023-33. doi: 10.1128/AEM.01524-15. PubMed PMID: 26231648; PubMed Central PMCID: PMCPMC4579428.

226. Walsh EA, Smith DC, Sogin ML, D'Hondt S. Bacterial and archaeal biogeography of the deep chlorophyll maximum in the South Pacific Gyre. Aquat Microb Ecol. 2015;75(1):1-13. doi: 10.3354/ame01746. PubMed PMID: WOS:000354392600001.

227. Eren AM, Esen OC, Quince C, Vineis JH, Morrison HG, Sogin ML, et al. Anvi'o: an advanced analysis and visualization platform for 'omics data. PeerJ. 2015;3:e1319. doi: 10.7717/peerj.1319. PubMed PMID: 26500826; PubMed Central PMCID: PMCPMC4614810.

228. Kleindienst S, Seidel M, Ziervogel K, Grim S, Loftis K, Harrison S, et al. Chemical dispersants can suppress the activity of natural oil-degrading microorganisms. Proc Natl Acad Sci U S A. 2015;112(48):14900-5. doi: 10.1073/pnas.1507380112. PubMed PMID: 26553985; PubMed Central PMCID: PMCPMC4672791.

229. Green HC, Fisher JC, McLellan SL, Sogin ML, Shanks OC. Identification of Specialists and Abundance-Occupancy Relationships among Intestinal Bacteria of Aves, Mammalia, and Actinopterygii. Appl Environ Microbiol. 2015;82(5):1496-503. doi: 10.1128/AEM.02456-15. PubMed PMID: 26712546; PubMed Central PMCID: PMCPMC4771328.

230. Madan JC, Hoen AG, Lundgren SN, Farzan SF, Cottingham KL, Morrison HG, et al. Association of Cesarean Delivery and Formula Supplementation With the Intestinal Microbiome of 6-Week-Old Infants. JAMA Pediatr. 2016;170(3):212-9. doi: 10.1001/jamapediatrics.2015.3732. PubMed PMID: 26752321; PubMed Central PMCID: PMCPMC4783194.

231. Ward MA, Pierre JF, Leal RF, Huang Y, Shogan B, Dalal SR, et al. Insights into the pathogenesis of ulcerative colitis from a murine model of stasis-induced dysbiosis, colonic metaplasia, and genetic susceptibility. Am J Physiol Gastrointest Liver Physiol. 2016;310(11):G973-88. doi: 10.1152/ajpgi.00017.2016. PubMed PMID: 27079612; PubMed Central PMCID: PMCPMC4935476.

232. Vineis JH, Ringus DL, Morrison HG, Delmont TO, Dalal S, Raffals LH, et al. Patient-Specific Bacteroides Genome Variants in Pouchitis. MBio. 2016;7(6). doi: 10.1128/mBio.01713-16. PubMed PMID: 27935837; PubMed Central PMCID: PMCPMC5111406.

233. Balint M, Bahram M, Eren AM, Faust K, Fuhrman JA, Lindahl B, et al. Millions of reads, thousands of taxa: microbial community structure and associations analyzed via marker genes. FEMS Microbiol Rev. 2016;40(5):686-700. doi: 10.1093/femsre/fuw017. PubMed PMID: 27358393.

234. Eren AM, Sogin ML, Maignien L. Editorial: New Insights into Microbial Ecology through Subtle Nucleotide Variation. Front Microbiol. 2016;7:1318. doi: 10.3389/fmicb.2016.01318. PubMed PMID: 27605925; PubMed Central PMCID: PMCPMC4995221.

235. Chernikova DA, Koestler DC, Hoen AG, Housman ML, Hibberd PL, Moore JH, et al. Fetal exposures and perinatal influences on the stool microbiota of premature infants. J Matern Fetal Neonatal Med. 2016;29(1):99-105. doi: 10.3109/14767058.2014.987748. PubMed PMID: 25394613; PubMed Central PMCID: PMCPMC4476945.

236. Hogan DA, Willger SD, Dolben EL, Hampton TH, Stanton BA, Morrison HG, et al. Analysis of Lung Microbiota in Bronchoalveolar Lavage, Protected Brush and Sputum Samples from Subjects with Mild-To-Moderate Cystic Fibrosis Lung Disease. PLoS One. 2016;11(3):e0149998. doi: 10.1371/journal.pone.0149998. PubMed PMID: 26943329; PubMed Central PMCID: PMCPMC4778801.

237. Walsh EA, Kirkpatrick JB, Pockalny R, Sauvage J, Spivack AJ, Murray RW, et al. Relationship of Bacterial Richness to Organic Degradation Rate and Sediment Age in Subseafloor Sediment. Appl Environ Microb. 2016;82(16):4994-9. doi: 10.1128/Aem.00809-16. PubMed PMID: WOS:000380550900014.

238. Walsh EA, Kirkpatrick JB, Rutherford SD, Smith DC, Sogin M, D'Hondt S. Bacterial diversity and community composition from seasurface to subseafloor. Isme Journal. 2016;10(4):979-89. doi: 10.1038/ismej.2015.175. PubMed PMID: WOS:000372364000017.

239. Kleindienst S, Seidel M, Ziervogel K, Grim S, Loftis K, Harrison S, et al. Reply to Prince et al.: Ability of chemical dispersants to reduce oil spill impacts remains unclear. Proc Natl Acad Sci U S A. 2016;113(11):E1422-3. doi: 10.1073/pnas.1600498113. PubMed PMID: 26933220; PubMed Central PMCID: PMCPMC4801283.

240. Kleindienst S, Grim S, Sogin M, Bracco A, Crespo-Medina M, Joye SB. Diverse, rare microbial taxa responded to the Deepwater Horizon deep-sea hydrocarbon plume. ISME J. 2016;10(2):400-15. doi: 10.1038/ismej.2015.121. PubMed PMID: 26230048; PubMed Central PMCID: PMCPMC4737931.

241. Huang Y, Dalal S, Antonopoulos D, Hubert N, Raffals LH, Dolan K, et al. Early Transcriptomic Changes in the Ileal Pouch Provide Insight into the Molecular Pathogenesis of Pouchitis and Ulcerative Colitis. Inflamm Bowel Dis. 2017;23(3):366-78. doi: 10.1097/MIB.0000000000001027. PubMed PMID: 28221248.

242. Knight R, Callewaert C, Marotz C, Hyde ER, Debelius JW, McDonald D, et al. The Microbiome and Human Biology. Annu Rev Genomics Hum Genet. 2017;18:65-86. doi: 10.1146/annurev-genom-083115-022438. PubMed PMID: 28375652.

243. Mackey KRM, Hunter-Cevera K, Britten GL, Murphy LG, Sogin ML, Huber JA. Seasonal Succession and Spatial Patterns of Synechococcus Microdiversity in a Salt Marsh Estuary Revealed through 16S rRNA Gene Oligotyping. Front Microbiol. 2017;8:1496. doi: 10.3389/fmicb.2017.01496. PubMed PMID: 28848514; PubMed Central PMCID: PMCPMC5552706.

244. Sheik, CS, Reese BK, Twing KI, Sylvan JB, Grim SL, Schrenk MO, Sogin ML, Colwell FS. Identification and Removal of Contaminant Sequences From Ribosomal Gene Databases: Lessons From the Census of Deep Life. Front. Microbiol, https://doi.org/10.3389/fmicb.2018.00840

245. Grahl N, Dolben EL, Filkins LM, Crocker AW, Willger SD, Morrison HG, Sogin ML, Ashare A, Gifford AH, Jacobs NJ, Schwartzman JD, Hogan DA. Profiling of Bacterial and Fungal Microbial Communities in Cystic Fibrosis Sputum Using RNA. mSphere. 2018;3(4). doi: 10.1128/mSphere.00292-18.

246. Chernikova DA, Madan JC, Housman ML, Zain-ul-abideen M, Lundgren N, Morrison HG, Sogin ML, Williams SM, Moore JH, Karagas MR, Hoen AG. The premature infant gut microbiome during the first 6 weeks of life differs based on gestational maturity at birth. Pediatric RESEARCH 2018; 10.1038/s41390-018-0022-z

247. Crognale S, Venturi S, Tassi F, Rossetti S, Rashed H, Cabassi J, Capecchiacci F, Nisi B, Vaselli O, Morrison H, Sogin M, Fazi S, Microbiome profiling in extremely acidic soils affected by hydrothermal fluids: the case of Solfatara Crater (Campi Flegrei, southern Italy). FEMS Microbiology Ecology 2018;94:(12) 10.1093/femsec/fiy190

248. Hoen, AG, Madan, JC, Li Z, Coker M, N.Lundgren S, Morrison HG, Palys T, Jackson BP, Sogin ML, Cottingham KL, Karagas MR. Sex-specific associations of infants' gut microbiome with arsenic exposure in a US population. Scientific Reports 2018; 10.1038/s41598-018-30581-9

249. Coker, MO, Hoen, AG, Dade, E, Lundgren, S, Li, Z, Wong, AD, Zens, MS, Palys, TJ, Morrison, HG, Sogin, ML, Baker, ER, Karagas, MR, Madan, JC. Specific class of intrapartum antibiotics relates to maturation of the infant gut microbiota: a prospective cohort study. BJOG 2019; 10.1111/1471-0528.15799'

250. Ecklu-Mensah, G., Sackey, S. T., Morrison, H. G., Sogin, M. L., Murphy, L. G., & Reznikoff, W. S. (2019). Assessment of bacterial diversity in western Accra, Ghana, drinking water samples [10.2166/washdev.2019.123]. Journal of Water, Sanitation and Hygiene for Development. https://doi.org/10.2166/washdev.2019.123

251. Miyoshi, J., Miyoshi, S., Delmont, T. O., Cham, C., Lee, S. T. M., Sakatani, A., Yang, K., Shan, Y., Kennedy, M., Kiefl, E., Yousef, M., Crosson, S., Sogin, M., Antonopoulos, D. A., Eren, A. M., Leone, V., & Chang, E. B. (2021). Early-Life Microbial Restitution Reduces Colitis Risk Promoted by Antibiotic-Induced Gut Dysbiosis in Interleukin 10(-/-) Mice. Gastroenterology, 161(3), 940-952 e915. https://doi.org/10.1053/j.gastro.2021.05.054

252. Klein, S., Frazier, V., Readdean, T., Lucas, E., Diaz-Jimenez, E. P., Sogin, M., Ruff, E. S., & Echeverri, K. (2021). Common Environmental Pollutants Negatively Affect Development and Regeneration in the Sea Anemone Nematostella vectensis Holobiont. FRONTIERS IN ECOLOGY AND EVOLUTION, 9(ARTN 786037). https://doi:10.3389/fevo.2021.786037

253. Simona, C., Venturi, S., Tassi, F., Simona, R., Cabassi, J., Capecchiacci, F., Bicocchi, G., Vaselli, O., Morrison, H., Sogin, M., & Fazi, S. (2022). Geochemical and microbiological profiles in hydrothermal extreme acidic environments (Pisciarelli Spring, Campi Flegrei, Italy). FEMS Microbiology Ecology. https://doi.org/10.1093/femsec/fiac088

d. Non-Refereed Journal Articles

1. Sogin ML. Early evolution and the origin of eukaryotes. Curr Opin Genet Dev. 1991;1(4):457-63. PubMed PMID: 1822277.
2. Sogin ML. Microbiology. Giants among the prokaryotes. Nature. 1993;362(6417):207. doi: 10.1038/362207a0. PubMed PMID: 8459847.
3. Sogin ML. Introductory remarks. Biological Bulletin. 1999;196(3):307-. PubMed PMID: WOS:000081104800009.
4. Sogin ML. Concluding Remarks. Biol Bull. 1999;196(3):415-6. doi: 10.1086/BBLv196n3p415. PubMed PMID: 28296482.
5. Sogin M, Jennings DE. Introduction. Biol Bull. 2003;204(2):159. doi: 10.1086/BBLv204n2p159. PubMed PMID: 27690524.

5. Research Grants:

a. Current Grants

Title of Project: Host and microbial basis of human ulcerative colitis and pouchitis:
Agency: NIH Co-I**M. L. Sogin (PI E. Chang–Univ. Chicago)**
Grant Number:1RC2DK122394
Project Period: 9/1/19-5/31/2024

Title of Project: Microbiome dynamic and discovery through transfer RNA
Agency: W.M. Keck Foundation Co-Is M.L. Sogin and A.M. Eren, PI - Tao Pan,
Project Period: 6/1/18-6/30/2022

b. Completed Grants

Title of Project: Role of Repetitive DNA sequences in Gene Expression
Agency: NIH Principal Investigator: **M. L. Sogin**
Grant Number: 1 R01 GM23464-01-06
Project Period: 2/1/77-1/31/1982

Title of Project: Molecular Evolution of Eukaryotes
Agency: NIH Principal Investigator: **M. L. Sogin**
Grant Number: 1 R01 GM32964-01-18
Project Period: 7/1/84-6/30/2000

Title of Project: Workshops in Molecular Evolution
Agency: Alfred P. Sloan Foundation Principal Investigator: **M. L. Sogin**
Project Period: 6/1/88-11/30/1990–Three serial awards over three years.

Title of Project: Workshops in Molecular Evolution
Agency: NSF Principal Investigator: **M. L. Sogin**
Grant Number: BSR-DEB-9615098
Project Period: 6/1/91-5/31/1999

Title of Project: Workshops in Molecular Evolution
Agency: NASA (NAG5-6662) Principal Investigator: **M. L. Sogin**
Project Period: 8/1/97-5/31/1999

Title of Project: Accretion of Cells with Nuclear Genomes: Calibrating Eukaryote Ultrastructure Innovation through Studies of Molecular Evolution
Agency: NASA (NAG5-4895) Principal Investigator: **M. L. Sogin**
Project Period: 6/1/97-5/31/2000

Title of Project: Core Funding for Center for Comparative Molecular Biology and Evolution
Agency: Josephine Bay Paul Foundation Principal Investigator: **M. L. Sogin**
Project Period: 12/1/97-12/31/2002

Title of Project:*Giardia*: A Model for Ancient Eukaryote Genome Functions
Agency: NIH(5 U01 AI43273-05) Principal Investigator: **M. L. Sogin**
Project Period: 2/15/98-4/31/04

Title of Project: Environmental Genomes and the Evolution of Complex Systems in Simple Organisms
Agency: NASA (NCC2-1054) Principal Investigator: **M. L. Sogin**
Project Period: 7/1/98-10/31/03

Title of Project: W.M. Keck Ecological and Evolutionary Genetics Facility
Agency: W.M. Keck Foundation Principal Investigator: **M. L. Sogin**
Project Period: 1/1/2001-12/31/2003

Title of Project: Adaptation of Unicellular Eukaryotes to Extremely Acidic Eukaryotes
Agency: NSF (DEB-0085486) Principal Investigator: **M. L. Sogin**
Project Period: 2/1/01-1/31/05

Title of Project: Microsporidia and the Next Generation of Genome Scientists
Agency: NSF**(**MCB-0135272) Principal Investigator: **M. L. Sogin**
Project Period: 2/1/01-10/31/05

Title of Project: Laboratory Equipment for Post-Genomic Studies in Environmental Biology
Agency: NSF**(**DBI-0100193) Principal Investigator: **M. L. Sogin**
Project Period: 6/15/01–5/31/03

Title of Project: The Program in molecular pathogenesis and global infectious disease at the Marine Biological Laboratory
Agency: Ellison Biomedical Foundation Co-Principal Investigators: **M. L. Sogin, W.T. Speck**
Project Period: 11/1/01-10/31/06

Title of Project: Support for Education and Research
Agency: The Irving Weinstein Foundation Principal Investigator: **M. L. Sogin**
Project Period: 8/1/2002-12/31/2003

Title of Project: Advances in Genome Technology and Bioinformatics -
Agency: Alfred P. Sloan Foundation Principal Investigator: **M. L. Sogin**
Project Period: 9/1/2002-8/30/2002–Supported four week course

Title of Project:Unveiling the Ocean's hidden majority: a roadmap-
Agency: Alfred P. Sloan Foundation Principal Investigator: **M. L. Sogin**
Project Period: 8/30/2003-3/30/2004–Supported Nov 2003 strategic planning workshop

Title of Project:Unveiling the Ocean's hidden majority: a roadmap-
Agency: G. and B, Moore Foundation Principal Investigator: **M. L. Sogin**
Project Period: 9/30/2003-3/30/2004–Supported Nov 2003 strategic planning workshop

Title of Project: From Early Biospheric Metabolisms to the Evolution of Complex Systems
Agency: NASA**(**NNA04CC04A) Principal Investigator: **M. L. Sogin**
Project Period: 11/1/03-10/31/08

Title of Project: Molecular Evolution of Eukaryotes: a protistan emphasis
Agency: NIH (1 R01 AI058054-01) Principal Investigator: **M. L. Sogin**
Project Period: 1/1/04-12/31/08

Title of Project: Bioinformatics Resource Centers for Biodefense and Emerging/Re-emerging Infectious Disease
Agency: NIH (NIAID-DMID-04-34) Co-I–**M.L. Sogin,** PI -**R. Shuerman**
Project Period: 2/2/04-2/1/09

Title of Project: Woods Hole Center for Oceans and Human Health
Agency: NIH/NIEHS (1 P50 ES012742-01) Co-I–**M.L. Sogin,** P.I. -**J. Stegeman**
Project Period: 2/16/04-12/31/08

Title of Project: Woods Hole Center for Oceans and Human Health
Agency: NSF (OCE- 0430724) Co-I–**M.L. Sogin**, P.I. -**J. Stegeman**
Project Period: 5/1/04-4/30/09

Title of Project: Microbial Population Structure of the World's Oceans Agency: Keck Foundation (DT063006) Principal Investigator: **M.L. Sogin** Project Period: 7/1/06-6/30/08

Title of Project: Anthropogenic impacts and profiling fecal microbial populations at a salt marsh
Agency: NIH (1 P50 ES012742-01)–Pilot project -Woods Hole Center for Oceans and Human Health Principal Investigator: **M.L. Sogin**
Project Period: 01/01/2007–12/31/2007

Title of Project: International Census of Marine Microbes
Agency: Alfred P. Sloan Foundation Principal Investigator: **M.L. Sogin** Project Period: 2/1/07–1/31/10

Title of Project: Visualization & Analysis of Microbial Population Structures
Agency: Alfred P. Sloan Foundation Principal Investigator: **M.L. Sogin**
Project Period: 06/01/2007–05/31/2009

Title of Project: New Paradigms for Remote Sensing and Monitoring of Microbial Ecosystems
Agency: NASA (NNA04CC04A) Principal Investigator: **M.L. Sogin**
Project Period: 06/01/2007–05/31/2008

Title of Project: Biogeochemical forensics of Fe-based microbial systems: defining mission targets and tactics for life detection on Mars
Agency: NASA (NNA04CC04A) Principal Investigator: **M.L. Sogin**
Project Period: 06/01/2007–05/31/2008

Title of Project: Genomics of Terrestrial Microbial Communities Associated with the Production and Consumption of Greenhouse Gases".
Agency: NSF/USDA Co-I–**M.L. Sogin,** PI -**T. Schmidt**
Project Period: 11/01/07-10/31/12

Title of Project: The Rare Biosphere and the Human Habitat
Agency: Alfred P. Sloan Foundation Principal Investigator: **M.L. Sogin** Project Period: 07/01/08-5/31/12

Title of Project: Microbial community profiling of sewage contamination in the Great Lakes" Produce & analyze a pyrotag data set corresponding to hypervariable regions in ribosomal RNA.
Agency: NIH (1R21Al076970 01A1) Co-I–**M.L. Sogin,** PI:**S. McLellan**
Project Period: 06/15/08-05/31/10

Title of Project: The Woods Hole Center for Oceans and Human Health
Agency: NSF/NIH (OCE-0911031) Co-I–**M.L. Sogin,** PI -**J. Stegeman**
Project Period: 06/01/09-05/31/12

Title of Project: Microbial Observatory Examining Microbial Abundance, Diversity, Association and Activity at Seafloor Brine Seeps
Agency: NSF EF-0801740 Co-I–**M.L. Sogin,** PI -**S. Joye**
Project Period: 09/01/09-08/31/13

Title of Project: VAMPS (MBL) data analysis and visualization module for MoBe DAC: A data analysis core for the Indoor Environment Microbiology Program
Agency: Alfred P. Sloan Foundation Principal Investigator: **M. L. Sogin**
Project Period: 10/01/2012-03/31/14

Title of Project: IGERT: Reverse Ecology: Computational Integration of Genomes, Organisms and Environments
Agency: NSF 0966060 Co-I–**M.L. Sogin,** PI -**D. Rand**
Project Period: 08/01/10 - 07/31/15

Title of Project: MRI Acquisition of an Illumina GAIIx for Genomics and Microbial Ecology
Agency: NSF-DBI-1039946 Principal Investigator: **M. L. Sogin**
Project Period: 8/15/10-7/31/13

Title of Project: Development of a TILLING Resource for the Xenopus Research Community
Agency: NIH (1R21HD065713) Co-I–**M.L. Sogin,** PI-**R. Grainger**
Project Period: 08/20/10-07/31/12

Title of Project: Molecular Microbial Inventories of space vehicles bound for Mars and their assembly facilities.
Agency: NASA NNX10AT90G Principal Investigator: **M. L. Sogin**
Project Period: 11/01/10-10/31/15

Title of Project: MoBe DAC: A data analysis core for the Indoor Environment Microbiology Program.
Agency: Alfred P. Sloan Foundation Principal Investigator: **M. L. Sogin**
Project Period: 01/01/2011-12/31/14

Title of Project: Scientific Steering Committee of the Deep Life Directorate
Agency: Alfred P. Sloan Foundation Principal Investigator: **M. L. Sogin**
Project Period: 03/01/11-6/30/15

Title of Project: Exploring Diversity and Distribution of Deep Life
Agency: Alfred P. Sloan Foundation Co-I – **M.L. Sogin,** PI - **R. Colwell**
Project Period: 04/06/11-10/31/13

Title of Project: The Role of the Gut Microbiota in Ulcerative Colitis
Agency: NIH 4UH3DK083993-04 Co-I – **M.L. Sogin,** PI - **V. Young**
Project Period: 08/01/12-07/31/14

Title of Project: Deep Life Community- The Deep Carbon Observatory
Agency: Alfred P. Sloan Foundation Principal Investigator: **M.L. Sogin**
Project Period: 01/01/2014-12/31/2015

Title of Project: Microbial community profiles identify new indicators of waterborne pathogens
Agency: NIH 10734207 Co-I – **M.L. Sogin,** PI - **S. McLellan**
Project Period: 05/01/11-04/30/16

Title of Project: Microbial Community Structure of Hydrocarbon Reservoirs and Associated Seep
Agency: ExxonMobil Principal Investigator: **M.L. Sogin**
Project Period: 08/15/2013-02/01/2017

Title of Project: An integrated data platform for democratized sequencing
Agency Alfred P. Sloan Foundation# 2014-3-04 Co-I – **M.L. Sogin,** PI - Rob Knight
Project Period: 01/03/15-03/31/16

Title of Project: Diversity and functional capacity of dynamic microbiomes in human health
Agency: Bay and Paul Foundation Principal Investigator: **M.L. Sogin**
Project Period: 01/01/2014-12/31/2017

Title of Project: Dynamics of Bacterial-Fungal Interactions in Chronic Lung Infection
Agency NIH:1R01GM108492-01: Co-I – **M.L. Sogin,** PI Debra Hogan
Project Period: 02/10/14-12/31/17

Title of Project: Strategies and Techniques for Analyzing Microbial Population Structures
Agency: NIH (R25 GM106988-01) Co-Investigators **M.L. Sogin, D. Mark Welch**
Project Period: 07/01/2013-06/30/2018

Title of Project: Deep Life Community- The Deep Carbon Observatory
Agency: Alfred P. Sloan Foundation Principal Investigator: **M.L. Sogin**
Project Period: 01/01/2016-12/31/2017

Title of Project: The Deep Life Community- 2018-2019
Agency: Alfred P. Sloan Foundation Principal Investigator: **M.L. Sogin**

d.Other foundation funding

Title of Project: **Molecular Evolution**
Agency: Unger G. Vetlesen Foundation Principal Investigator:
Project Period: 11/1/1989-10/31/2021

6. Service

(i) Institutional

1994-2000 Science Advisory Council: Marine Biological Laboratory at Woods Hole.

1997-2013 Founding Director, Josephine Bay Paul Center for Comparative Molecular Biology and Evolution

2016-2021 Science Advisory Council: Marine Biological Laboratory at Woods Hole.

(ii) Professional

Society Memberships

American Society of Microbiology

Society of Protozoologists

International Society of Evolutionary Protozologists

Society for Molecular Biology and Evolution

American Association for the Advancement of Science

American Society for Cell Biology

(ii) Community

1989-1990 National Science Foundation Minority Post Doctoral Fellowship Program

1994-1996 National Science Foundation/Sloan Foundation Molecular Evolution Post-Doctoral Program

1999-2004 National Research Council- Space Studies Board.

2001-2015 Sloan Research Fellowship in Marine Biology Selection Committee

2016- current American Academy of Microbiology Fellows Selection Committee

Editorial Board: Journal of Eukaryotic Microbiology: (Journal of Protozoology)

Editorial Board: Molecular Phylogenetics and Evolution

Editorial Board: Protist (Formerly Archiv fur Protistenkunde)

Editorial Board: Applied and Environmental Microbiology

Editorial Board: Astrobiology

Editorial Board: Environmental Microbiology

7. Academic Honors:

1992 Division Lecturer - American Society for Microbiology

1993 Stoll Stunkard Award - American Society of Parasitologists

1995 Elected Chairman - Division R, American Society of Microbiologists

1996 Elected - Fellow of the American Academy of Microbiology

1998 Elected - Fellow of the American Academy of Arts and Sciences

1998 Elected - Fellow of the American Association for the Advancement of Science
2007 American Society for Microbiology – Roger Porter Award

8. Teaching:

1985-1986	Nucleic Acids module in Biochemistry graduate course at University of Colorado Health Sciences Center, Department of Biochemistry and Biophysics
1988-2000	Director - Workshop in Molecular Evolution at the marine Biological Laboratory
1997-1998	Lectures in Microbial Diversity and Evolution at University of California, Berkeley
2002-2003	Director - Advances in Genome Technology and Bioinformatics
2011-2017	Co-Director (w David Mark Welch) Strategies and Techniques for Analyzing Microbial Population Structures (STAMPS)