

Eric R. Henderson

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BACKGROUND

I received my Ph.D. degree (1984) in Molecular Biology under the tutelage of Dr. James A. Lake at UCLA. My research focus was the structure and function of ribosomes. I was a Damon-Runyon post-doctoral fellow with Nobel laureate Dr. Elizabeth Blackburn (1984-1987) at UC Berkeley. My research focus was the structure and function of telomeres. My current field of study is the use of self-assembling DNA nanosystems for diagnostic and therapeutic purposes.

CURRENT POSITIONS

Professor of Genetics, Development and Cell Biology, Iowa State University
Founder and CEO, Creodyne, llc
Managing Partner, Curated Growth, llc

PREVIOUS AND OTHER POSITIONS

Assistant & Associate Professor, Iowa State University (1987-1996)
Co-Founder, BioForce Nanosciences, Inc. (1994-2008)
Co-Founder, Aspera Corp.
Co-Founder, Hello Holdings, Inc.
Co-Founder, Henderprise, llc

PATENTS (9 US, international counterparts not displayed)

US 5,763,768; "Analytical Method Using Modified Scanning Probes"
US 5,935,339; "Decontamination Device and Method Thereof"
US 6,146,899; "Height Referencing Biochemical Cassette"
US 6,573,369; "Method and Apparatus for Solid State Molecular Analysis"
US 6,716,578; "Methods for Solid State Genome Analysis"
US 6,897,015; "Device and Method ... Detection and ... of Pathogens..."
US 6,998,228; "Method and Apparatus for Solid State Molecular Analysis"
US 7,008,769; "Nanoscale Molecular Arrayer"
US 7,060,448; "Evaluating Binding Affinities by Force Stratification and Force Panning"

PATENTS PENDING

US Pat. Ap. No. 15821559; "Self-assembling Molecular Nanosystem for Targeted DNA and Gene Delivery"
(Abandoned 2020 – lack of funds)

REVIEWER

Acta Biomaterialia	Nucleic Acids Research
Applied Physics Letters	New England Journal of Medicine
Biochemistry	Plant Molecular Biology
Biophysical Journal	Physical Review
Biochimica et Biophysica Acta	PLOS One
Chromosoma	Probe Microscopy
Electrophoresis	Proceedings of the National Academy of Science
Experimental Cell Research	Reviews of Modern Physics
Genes and Development	Science
Journal of Membrane Biology	Scanning Microscopy
Journal of Biological Chemistry	Surface Science
Journal of Molecular Biology	The Scientific World Journal
Journal of Molecular Phylogeny and Evolution	National Science Foundation
Journal of Microscopy	National Institutes of Health
Journal of the Royal Society Interface	Israel Science Foundation
Journal of Structural Biology	American Cancer Society
Nanomedicine	Lawrence Livermore National Laboratory

PUBLICATIONS

1. Marquis, D.M., Fahnestock, S.R., Henderson, E., Woo, D. Schwinge, S., Clark, M.W. and Lake, J.A. (1981) The L7/L12 stalk, a conserved feature of the prokaryotic ribosome, is attached to the large subunit through its N terminus. *J. Mol. Biol.* 150, 121-132.
2. Lake, J.A., Henderson, E., Clark, M.W. and Matheson, A.T. (1982) Mapping evolution with ribosome structure: intralinear constancy and interlinear variation. *Proc. Natl. Acad. Sci. USA* 79, 5948-5952.
3. Henderson, E., Pierson, B. and Lake, J.A. (1983) *Chloroflexus auranticus* has 30S ribosomal subunits of the eubacterial type. *J. Bact.* 155(2), 900-902.
4. Henderson, E., Oakes, M., Clark, M.W., Lake, J.A., Matheson, A.T. and Zillig, W. (1984) A new ribosome structure. *Science* 225, 510-512. PMID: 6429855.
5. Lake, J.A., Henderson, E., Oakes, M. and Clark, M.W. (1984) Eocytes: A new ribosome structure indicates a kingdom with a close relationship to eukaryotes. *Proc. Natl. Acad. Sci. USA* 81, 3786-3790. PMID: 6587394.
6. Lake, J.A., Clark, M.W., Henderson, E., Fay, S., Oakes, M., Scheinmann, A., Thornber, J.P. and Mah, R.A. (1985) Eubacteria, halobacteria and the origin of photosynthesis: the photocytes. *Proc. Natl. Acad. Sci. USA* 82, 3716-3720.
7. Henderson, E. and Lake, J.A. (1985) Ribosomal collapse triggered by a DNA oligonucleotide., in *Proceedings of the 16th FEBS, Vnu Science Press, B.V. Utrecht, Netherlands.*
8. Oakes, M., Henderson, E., Scheinmann, A., Clark, M.W., and Lake, J.A. (1985) Mapping ribosomal RNA, protein, and functional sites in three dimensions. in *Structure, Function and Genetics of Ribosomes.* Springer-verlag Press, Spring Series in Molecular Biology.
9. Oakes, M., Clark, M.W., Henderson, E., Scheinmann, A. and Lake, J.A. (1985) Evidence for a specific phylogenetic relationship between the methanogens *Methanococcus thermolithotrophicus* and *Methanothermobacter feravidus*, and the sulfur respiring *Thermoproteus tenax*., *System. Applied Microbiol.* 351-356.
10. Lake, J.A., Henderson, E., Clark, M.W., Scheinman, A. and Oakes, M.I. (1986) Evolution mapped with the three dimensional ribosome structure. *Chemica Scripta* 26, 121-126.
11. Lake, J.A., Henderson, E., Clark, M.W., Scheinmann, A and Oakes, M. (1986) Mapping evolution with three dimensional ribosome structure. *System. Applied Microbiol.* 7, 131-136.
12. Oakes, M., Clark, M.W., Henderson, E. and Lake, J.A. (1986) DNA hybridization electron microscopy: ribosomal RNA nucleotides 1392-1407 are exposed in the cleft of the small subunit. *Proc. Natl Acad. Sci. USA* 83, 275-279.

13. Henderson, E. Hardin, C.W., Wolk, S. Tinoco, I., Jr. and Blackburn, E.H. (1987) Telomeric DNA oligonucleotides form novel intramolecular structures containing guanine.guanine base pairs., *Cell* 51, 899-908. PMID: 3690664.
14. Forney, J., Henderson, E.R. and Blackburn, E.H. (1987) Identification of the telomeric sequence of the acellular slime molds *Didymium iridis* and *Physarum polycephalum*. *Nucleic Acids Res.* 22, 9143-9152.
15. Henderson, E., Larson, D., Melton, W., Shampay, J., Spangler, E., Greider, C., Ryan, T. and Blackburn, E. (1988) Structure, synthesis and regulation of telomeres in eukaryotic DNA replication, Vol. 6. Bruce Stillman and Thomas Kelly, eds. Cold Spring Harbor Laboratory.
16. Henderson, E. and Blackburn, E.H. (1989) An overhanging G-rich strand is a conserved feature of eukaryotic telomeres. *Mol. and Cell Biol.* 9, 354-348.
17. Blackburn, E. H., C. W. Greider, E. Henderson, M. S. Lee, J. Shampay and Shippen-Lentz, L.D. (1989) Recognition and elongation of telomeres by telomerase, *Genome* 31(2), 553-560.
18. Henderson, E., Moore, M. and Malcolm, B. A. (1990) Telomere G-strand structure and function analyzed by chemical protection, base analog substitution and utilization by telomerase in vitro. *Biochemistry* 29, 732-737.
19. Hardin, C.C., Prosser, J.K., Blackburn, E.H., Henderson, E.R. and Tinoco, I. Jr. (1991) Ion induced structural transitions in telomeric DNAs. *Biochemistry* 30, 4460-4472.
20. Freund, M. S., Brajter-Toth, A., Cotton, T.M. and Henderson, E. (1991) Scanning tunneling microscopy and atomic force microscopy in the characterization of activated graphite electrodes, *Analytical Chemistry* 63(10).
21. Ahmed, S. and Henderson, E. (1992) Formation of novel hairpin structures by telomeric C-strand oligonucleotides. *Nucleic Acids Research*, 20 (3) 507-511.
22. Henderson, E. (1992) Nanodissection of supercoiled plasmid DNA by atomic force microscopy. *Nucleic Acids Research*, 20 (3) 445-447.
23. Henderson, E. (1992) Atomic force microscopy of conventional and unconventional nucleic acid structures. *J. Microscopy*, 167, 77-84.
24. Henderson, E. and Larson, D. (1991) Telomeres - what's new at the end? in *Current Topics in Genetics and Development*, 1, 538-543.
25. Henderson, E., Haydon, P.G and Sakaguchi, D.A. (1992) Actin filaments dynamics in living glial cells imaged by atomic force microscopy. *Science*, 257, 1944-1946. PMID: 1411511.
26. Tak, Yongsug, Hebert, K. R. and Henderson, E. (1992) Evolution of microscopic surface topography during passivation of aluminum. *Proc. Electrochem. Soc.*, Vol. 92-22.
27. Hoh, J. H. and Henderson, E. (1992) Biological Sample Preparation for Force Microscopy. *NanoTips*, 4, 2-3 (Digital Instruments, Inc., solicited newsletter article, not refereed).
28. Parpura, V. Haydon, P.G. and Henderson, E. (1993) Three-dimensional imaging of neuronal growth cones and glia with the Atomic Force Microscope. *J. Cell Sci.* 104, 427-432.
29. Henderson, E., and Sakaguchi, D.S. (1993) Imaging F-Actin in fixed glial cells with a combined optical fluorescence/atomic force microscope. *NeuroImage* 1, 145-150.
28. Sakaguchi, D.S. and Henderson, E. (1993) Isolation and characterization of glial cell lines from *Xenopus* neuroepithelium and retinal pigment epithelium. *NeuroProtocols* 3, 249-259.
30. Shaiu, W-L., Larson, D.D., Vesenka, J. and Henderson, E. (1993) Atomic force microscopy of oriented linear DNA molecules labeled with 5nm gold spheres. *Nuc. Acids Res.*, 21 (1) 99-103.
31. Shaiu, W-L., Vesenka, J. Jondle, D., Henderson, E. and Larson, D.D. (1993) Visualization of circular DNA molecules labeled with colloidal gold spheres using atomic force microscopy. *J. Vac. Sci. Tech.* 11(4) 820-823.
32. Parpura, V., Haydon, P.G., Sakaguchi, D.S., Henderson, E. (1993) Atomic force microscopy and manipulation of living glial cells. *J. Vac. Sci. Technol. A*, 11(4), 773-775.
33. Rubim, J. C., Kim, J-H., Henderson, E. and Cotton, T.M. (1993) Surface enhanced raman scattering and atomic force microscopy of brass electrodes in sulfuric acid solution containing benzotriazole and chloride ion. *Applied Spectroscopy* 47(1), 80-84.
34. Niu, L., Shaiu, W-L., Vesenka, J., Larson, D.D. and Henderson, E. (1993) Atomic force microscopy of DNA-colloidal gold and DNA-protein complexes., *SPIE Conference Proceedings*, "Advances in DNA Sequencing Technology", 1891, 71-77.
35. Vesenka, J., Manne, S., Giberson, R., Marsh, T. Jondle, D., Weber, J. and Henderson, E. (1993) Colloidal gold particles as incompressible Atomic Force Microscope imaging standards and the effect of tip

- sharpness on the structural integrity of biomolecules. Proc. Fourmentin-Guilbert 2nd "STM/AFM in biology" meeting, Paris, France, 1992.
36. Henderson, E., Jondle, D., Marsh, T., Shaiu, W-L., Niu, L., Stanley, E. and Haydon, P. (1993) Imaging biological samples with the atomic force microscope. Proceedings of the Microscopy Society of America, Cincinnati, Ohio.
 37. Vesenka, J., S. Manne, G. Yang, C. J. Bustamante and Henderson, E. (1993) Humidity effects on atomic force microscopy of gold-labeled DNA on mica. *Scan. Microscopy*, 7(3): 781-788.
 38. Vesenka, J., Manne, S., Giberson, R., Marsh, T. and Henderson, E. (1993) Colloidal gold particles as an incompressible atomic force microscope imaging standard for assessing the compressibility of biomolecules. *Biophys. J.*, 65, 992-997.
 39. Henderson, E. (1994) Imaging of living cells by atomic force microscopy. *Progress in Surface Science*, 46 (1).
 40. Vesenka, J., R. Miller, and Henderson, E. (1994) Three-dimensional probe reconstruction for atomic force microscopy. *Rev. Sci. Instrum.* 65, 1-3.
 41. Ahmed, S., A. Kintinar, and Henderson, E. (1994) Human telomeric C-strand tetraplexes. *Nature Structural Biology*, 1, 83-88.
 42. Schierer, T., and Henderson, E. (1994) A protein from *Tetrahymena thermophila* that specifically binds parallel-stranded G4-DNA. *Biochemistry*, 33, 2240-2246.
 43. Marsh, T. C., and Henderson, E. (1994) G-wires: Self-assembly of a telomeric oligonucleotide, d(GGGTTGGG), into large superstructures. *Biochemistry*, 33, 10718-10724.
 44. Miller, R., J. Vesenka, and Henderson, E. (1995) Tip reconstruction for the atomic force microscope. SIAM (Society for Industrial and Applied Mathematics) October, 1995.
 45. Haydon, P. G., Henderson, E. and Stanley, E. F. (1994) The spatial arrangement of calcium channels at the release face of a presynaptic nerve terminal. *Neuron* 13, 1275-1280.
 46. Sheng, H., Z. Hou, T. Schierer, D. L. Dobbs, and Henderson, E. (1995) Identification and characterization of a telomere binding protein from *Tetrahymena thermophila*. *MCB*, 15(3), 1144-1153.
 47. Henderson, E. (1995) Telomere DNA Structure in Telomeres. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY. E. H. Blackburn and C. W. Greider, eds.
 48. Mosher, C., Jondle, D., Ambrosio, L., Vesenka, J. and Henderson, E. (1994) Microdissection and Measurement of Polytene Chromosomes Using the Atomic Force Microscope. *Scanning Microscopy*, 8(3) 491-497.
 49. Martin, L. D., J. P. Vesenka, E. R. Henderson, and D. L. Dobbs. (1995) Visualization of nucleosomal structure in native chromatin by atomic force microscopy. *Biochemistry*, 34, 4610-4616.
 50. Marsh, T. C., J. Vesenka, and E. Henderson. (1995) A new DNA nanostructure imaged by scanning probe microscopy. *Nuc. Acids Res.*, 23(4), 696-700.
 51. Jondle, D. M., Ambrosio, L., Vesenka, J. and Henderson, E. (1995) Imaging and manipulating chromosomes with the atomic force microscope. *Chromosome Res.* 3(4), 239-244.
 52. Stanley, E., Parpura, V., Henderson, E. and Haydon, P. (1995) Atomic Force Microscopy: A high resolution imaging tool for the neurosciences. *Trends in Neuroscience*.
 53. Parpura, V., Doyle, R.T., Basarsky, T. A., Henderson, E. and Haydon, P. G. (1995) Dynamic imaging of purified individual synaptic vesicles. *NeuroImage*, 2, 3-7.
 54. Vesenka, J., Mosher, C. Schaus, S. Ambrosio, L. and Henderson, E. (1995) Combining optical and atomic force microscopy for life sciences research. *BioTechniques*, 19, 240-253.
 55. Henderson, E., Ambrosio, Curtis Mosher, L., Jondle, D., Stanley, E., Haydon, P., Marsh, T. and Vesenka, J. (1994) Analyzing chromosomes, ion channels and novel nucleic acid structures by AFM. NATO Advanced Research Workshop "Scanning Near-Field Microscopies and Molecular Materials". Schloss Ringberg, Tegernsee, Germany.
 56. Fritzsche, W., Vesenka, J. and Henderson, E. (1995) Scanning force microscopy of chromatin. *Scanning Microscopy*. 9(3), 729-739.
 57. Fritzsche, W., Sokolov, K., Chumanov, G., Cottom, T. M. and Henderson, E. (1996) Ultrastructural characterization of colloidal metal films for bioanalytical applications by SFM. *J. Vac. Sci. Technol., A* 14 (3) (1996), 1766-1769
 58. Fritzsche, W. and Henderson, E. (1996) Volume determination of human metaphase chromosomes by scanning force microscopy. *Scanning Microscopy* 10(1).

59. W. Fritzsche, L. Martin, D. Dobbs, D. Jondle, R. Miller, J. Vesenka, E. Henderson (1996) Reconstruction of ribosomal subunits and rDNA chromatin imaged by Scanning Force Microscopy. *Journal of Vacuum Science and Technology B* 14 (2), 1404-1409.
60. Vesenka, J., Marsh, T., Miller, R., Henderson, E. (1996) Atomic force microscopy reconstruction of G-wire DNA. *J. Vac. Sci. Technol. B* 14(2), 1413-1417.
61. W. Fritzsche, E. Henderson (1997) Scanning force microscopy reveals ellipsoid shape of chicken erythrocyte nucleosomes. *Scanning* 19, 42-47
62. Fritzsche, W and Henderson, E. (1997) Chicken erythrocyte nucleosomes have a defined orientation along the linker DNA - a scanning force microscopy study. *Scanning* 19, 42-47.
63. W. Fritzsche, J. Symanzik, K. Sokolov, E. Henderson (1997) Methanol induced lateral diffusion of colloidal silver particles on a silanized glass surface - a scanning force microscopy study. *Journal of Colloidal and Interface Science, Journal of Colloid and Interface Science* 185 (2), 466-472.
64. Vesenka, J., Vellandi, C. Kumar, I., Marsh, T. and Henderson, E. (1997) The diameter of duplex and quadruplex DNA measured by SPM", *Scanning Microscopy*.
65. Schaus, S. S. and Henderson, E. (1997) Cell viability and probe-cell membrane interactions of XR1 glial cells imaged by AFM. *Biophysical Journal*, 73, 1205-1214.
66. Fritzsche, W. and Henderson, E. (1997) Mapping elasticity of rehydrated metaphase chromosomes by scanning force microscopy. *Ultramicroscopy* 69 (1997), 191-200.
67. Fritzsche, W. and Henderson, E. (1997) Ribosome substructure investigated by scanning force microscopy and image processing. *J. Microsc.* 189, 50-56.
68. Fritzsche, W., Takac, L., and Henderson, E (1997) Application of Atomic Force Microscopy to visualization of DNA, chromatin and chromosomes. *Critical Review in Eukaryotic Gene Expression* 1997 7(3), 231-240.
69. Kee, K., Niu, L. and Henderson, E. (1997) Dihydroliipoamide dehydrogenase is a G4-DNA binding protein. *Biochemistry*, 37 (12), 4224-4234.
70. Jones, V. W., Kenseth, J. R., Porter, M. D., Mosher, C. L. and Henderson, E. (1998) Molecular force detection and spectroscopy with the atomic force microscope. *Science Progress*, 81(2), 141-151. 71.
71. Henderson, E. (1998) Microminiaturized immunoassays using Atomic Force Microscopy and compositionally patterned antigen arrays. *Anal. Chem.*, 70 (7), 1233-1241.
72. Lu, Q., Schierer, T., Kang, S.-G. and Henderson, E. (1998) Purification, biochemical characterization and molecular cloning of TGP1, a novel G-DNA binding protein from *Tetrahymena thermophila*. *Nuc. Acids Res.* 26(7), 1613-1620.
73. Ahmed, S., Sheng, H. and Henderson, E. (1998) *tgif1*, a *Tetrahymena* mutant with short telomeres. *Genetics*, 150(2):643-650.
74. Mazzola, L. T., Frank, C. W., Fodor, S. P. A., Lu, Q., Mosher, C., Lartius, R. and Henderson, E. (1999) Discrimination of DNA hybridization using chemical force microscopy. *Biophys. J.*, 76, 2922-2933.
75. Tseng, H. C., Lu, Q., Henderson, E., and Graves, D. J., (1999) Rescue of phosphorylated Tau-mediated microtubule formation by a natural osmolyte TMAO. *Proc Natl Acad Sci U S A* 1999 Aug 17; 96(17):9503-8.
76. Lynch, M. and Henderson, E. (1999) A reliable preparation method for imaging DNA by AFM. *Microscopy Today*, 99-9, 10.
77. O'Brien, J.C., Vivian W. Jones, and Marc D. Porter, Curtis L. Mosher and Henderson, E. (2000) Immunosensing platforms using spontaneously adsorbed antibody fragments on gold. *Analytical Chemistry* (2000), 72(4), 703-710.
78. Lu, Q. and E. Henderson, Two *Tetrahymena* G-DNA binding proteins, TGP1 and TGP 3, have novel motifs and may play a role in micronuclear division. *Nuc. Acids Res.*, 2000. 28(15). PMID: 102687.
79. Kang, S-G., Lee, E., Schaus, S. and Henderson, E. (2001) Monitoring transfected cells without selection agents by using the dual-cassette expression EGFP vectors. *Exp. Molec. Med.* 33(3) 174-178.
80. Limansky, A., Shlyakhtenko, L.S., Schaus, S., Henderson, E. and Lyubchenko, Y.L. (2002) Amino modified probes for Atomic Force Microscopy, *Probe Microscopy* 2(3-4) 227-234.
81. Mosher, C., Lynch, M., Nettikadan, S., Henderson, W., Kristmundsdottir, A., Clark, M.C. and Henderson, E. NanoArrays, The next generation molecular array format for high throughput proteomics, *Diagnostics and Drug Discovery. JALA*, 2000 5(5) 75-78.
82. Clark, M. W., Henderson, E., Henderson, W., Kristmundsdottir, A., Lynch, M., Mosher, C. and Nettikadan, S. Nanotechnology tools for functional proteomics analysis, *J. Am. Biotech. Lab.*, 2001.
83. Kang, S-G., and Henderson, E. (2002) Identification of non-telomeric G-4 binding proteins in human, *E. coli*, yeast and *Arabidopsis*. *Molecules and Cells* 14(3), 404-410.

84. Nettikadan, S. R., Johnson, J. C., Vengasandra, S. G., Muys, J. and Henderson, E. (2004) ViriChip: A solid phase assay for detection and identification of viruses by AFM. *Nanotechnology* 15, 383-389.
85. Nettikadan, S. R., Johnson, J. C., Mosher, C., and Henderson, E. (2003) Virus particle detection by solid phase immunocapture and atomic force microscopy. *Biophys. Biochem. Res. Comm.* 311(2) 540-545.
86. Johnson, J. C., Nettikadan, S. R., Vengasandra, S. G. and Henderson, E. (2004) Analysis of solid-phase immobilized antibodies by atomic force microscopy. *J. Biochem. Biophys. Meth.* 59 (2) 167-180.
87. Lynch, M., Mosher, C., Huff, J., Nettikadan, S., Johnson, J., and Henderson, E. (2004) Functional protein nanoarrays for biomarker profiling. *Proteomics* 6 (4), 1695-1702.
88. Xu, J., Lynch, M., Huff, J., Mosher, C., Ding, G., and Henderson, E. (2003) Microfabricated quill-type deposition tools for the creations of biological micro/nano arrays. *Biomedical Microdevices*, 6(2), 117-123.
89. Radke, K. M., Nettikadan, Johnson, J. C., Vengasandra, S. G. and Henderson, E. (2004) ViriChip enhances RT-PCR in biological fluids and environmental samples. *Analytical Biochemistry*, 330(2) 350-352.
90. Huff, J. L., Lynch, M. P., Nettikadan, S., Johnson, J. C., Vengasandra, S. and Henderson, E. (2004) Label-free protein and pathogen detection using the atomic force microscope. *J. Biomol. Screening*, 9(6), 491-498.
91. Xu, J., Lynch, M., Nettikadan, S., Mosher, C., Vegasandra, S., Henderson, E. (2005) Microfabricated "Biomolecular Ink Cartridges" – Surface patterning tools (SPTs) for the printing of multiplexed biomolecular arrays. *Sensors and Actuators B*.
92. Vengasandra, S., Xu, J., Lynch, M. Henderson, E. (2005) Microfluidic Ultramicroscale Deposition and Patterning of Quantum Dots. *Nanotechnology* 16, 2052-2055, 2005.
93. Johnson, J. C., Nettikadan, S. R., Vengasandra, S. G., Lovan, S., Muys, J., Henderson, E. and Christiansen, J. (2005) Characterization of the testudine melanomacrophage linear, membrane extension processes – cablepodia – by phase and atomic force microscopy. *In Vitro Cell. Dev. Biol., Animal* 41, 225-231.
94. Nettikadan, S. R., Mosher, C., Lynch, M., Johnson, J., Radke, K. and Henderson, E. (2006) Protein Biomarker Detection From Four Cells Using Ultraminiaturized Antibody Arrays. *Molecular and Cellular Proteomics* 5 (5): 895-901.
95. R. Lutz, J. Lutz, J. Lathrop, T. Klinge, E. Henderson, D. Mathur, and D. Abo Sheasha, (2012) Engineering and verifying requirements for programmable self-assembling nanomachines, *Proceedings of the Thirty-Fourth International Conference on Software Engineering (ICSE 2012, Zurich, Switzerland, June 2-9, 2012)*, pp. 1361-1364.
96. Lutz, Robyn R., Lutz, Jack H., Lathrop, James I., Klinge, Titus H., Mathur, Divita, Stull, Don M., Bergquist, Taylor G. and Henderson, Eric R. (2012) Requirements analysis for a product family of DNA nanodevices, *Proceedings of the Twentieth IEEE International Requirements Engineering Conference (RE 2012, Chicago, IL, September 24-28, 2012)*, pp. 211-220.
97. Mathur, D. and Henderson, E. (2013) Complex DNA Nanostructures from Oligonucleotide Ensembles, *ACS Synthetic Biology*, 2, 180-185.
98. Ellis, Samuel J., Henderson, Eric R., Klinge, Titus H., Lathrop, James I., Lutz, Jack H., Lutz, Robyn R., Mathur, Divita, and Miner, Andrew S. (2014) Automated Requirements Analysis for a Molecular Watchdog Timer In *Proceedings of the 29th ACM/IEEE international conference on Automated software engineering (ASE '14)*. ACM, New York, NY, USA, 767-778. DOI=10.1145/2642937.2643007 <http://doi.acm.org/10.1145/2642937.2643007> (Awarded the "Manfred Paul Award for Excellence in Software: Theory and Practice").
99. Mathur, D., and Henderson, E. R. (2016) Programmable DNA Nanosystem for Molecular Interrogation. *Nature Scientific Reports*, 6, No. 27413, doi:10.1038/srep27413, <http://www.nature.com/articles/srep27413>. PMID: 4895238.
100. McCloskey M. A., Mosher, C. L., Henderson, E. R. (2017) Wind Energy Conversion by Plant-Inspired Designs. *PLoS ONE* 12(1): e0170022. doi:10.1371/journal.pone.0170022. PMID: 5234829.
101. McCloskey M. A., Mosher, C. L., Henderson, E. R. (2017) Will Artificial Trees be the Next Power Plants? *Science Journal for Kids (Environmental Science Journal for Teens)*. Science Journal for Kids, Inc. Houston, TX, 77055, USA.
102. Koehler, C., Mathur, D., Henderson, E. & Lutz, R. Probing the Security of DNA Origami. (2018) *IEEE International Symposium on Software Reliability Engineering Workshops (ISSREW)* 138–139, doi: [10.1109/ISSREW.2018.00-14](https://doi.org/10.1109/ISSREW.2018.00-14).

MEMBERSHIPS

AAAS (science)
AARP-RIP

