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Academic Background

Ph.D.	University of Saskatchewan	1994
Teaching Certification	University of British Columbia	1986
M.Sc.	Memorial University of Newfoundland	1984
B.Sc. (Honors)	Memorial University of Newfoundland	1982
Ph.D. Dissertation	Theoretical and practical aspects of impedance microbiology - Dr. William L. Albritton (Provincial Laboratory of Public Health, University of Alberta), Thesis advisor	

Professional History

Data Scientist, Union Pacific Railway, Omaha, NE 68102, 2018-current.

Bioinformatic Consultant for Pacific Northwest National Laboratory, Energy and Environmental Directorate, 902 Battelle Boulevard, P.O. Box 999, MSIN P7-59, Richland, WA 99352 USA, October 2017 – March 2018.

Microbiology Consultant for BuddyEngineer, 13305 NE 171st St. Suite C317, Woodinville, WA 98072 (253-256-5197), July 2014 - now.

Affiliate Professor, Department of Periodontics, School of Dentistry, University of Washington, Seattle, WA, June 2010 – June 2017.

Professor, PhD Microbiology Program, Alabama State University, Montgomery, AL, July 2014 – May 2016.

Associate Professor, PhD Microbiology Program, Alabama State University, Montgomery, AL, July 2009 to July 2014.

Adjunct Professor, Department of Microbiology, University of Alabama, Birmingham, AL July 2011- July 2016.

Visiting Professor, Max-Planck-Institute for Evolutionary Biology, August-Thienemannstrasse, Ploen, Germany, May to August, 2010 and May 2011.

Research Assistant Professor, Department of Civil and Environmental Engineering, University of Washington, Seattle, WA, July 2000- July 2009.

Visiting Professor, Institute for Genetics, University of Cologne, Cologne, Germany, June to August 2006.

Research Assistant Professor, Belle W. Baruch Institute of Marine Biology and Coastal Research, University of South Carolina, Columbia, SC, July 1996 - July 2000.

Visiting Scientist, Marine Biological Laboratory, Woods Hole, MA, May-June, 2000.

Visiting Research Scholar, Dept. of Civil Engineering, Northwestern University, Evanston, IL, June to August 1999.

Research Associate, Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, MD, July 1995 - July 1996

Post-doctoral Fellow, National Water Research Institute, Fountain Valley, CA. Jan to July 1995

Post-doctoral Fellow (with Betty H Olson), Environmental Analysis and Design, University of California, Irvine, CA July 1993- July 1995

Senior Biology Teacher, Vancouver School Board, Vancouver, British Columbia, Canada, January to June 1987

Senior Biology Teacher, School District of Mystery Lake No. 2355, Thompson, Manitoba, Canada, August 1985 to June 1987

Computer Programmer/Statistical Analyst, University of British Columbia, Vancouver, BC, Canada. June to Auguest 1985

Research Assistant Technician, Faculty of Medicine, Memorial University of Newfoundland, St. John's, Newfoundland, Canada July 1982- July 1984

Scopus H (Hirsch)-score=20; Number of peer-reviewed articles=50+; Average citations per article: 26.1; Number of posters=60+; Number of citations: 1000+

Journal Peer-Reviewed Publications (* indicates primary author)

2018

P1. **Noble P.A.***, Pozhitkov A. (2018) Distinct sequencing patterns in the postmortem transcriptome. https://www.biorxiv.org/content/early/2018/04/02/293589. *In review*.

P2. Bagwell C.E., **Noble P.A.**, Milliken C.E., Li D., and Kaplan D.I. (2018) Amplicon sequencing reveals microbiological signatures in spent nuclear fuel storage basins. *Frontiers of Microbiology*, 9:377, Cited by: 0. Impact factor of 4.076, doi: 10.3389/fmicb.2018.00377

2017

P3. Pozhitkov A, Neme R, Domazet-Lošo T, Leroux BG, Soni S, Tautz, D, **Noble PA***. (2017) Tracing the dynamics of gene transcripts after organismal death. *Open Biology*. 7:160267. Cited by: 11. Impact factor of 5.303. March 2018: most read article in Open Biology 18,000+ reads. doi:10.1098/rsob.160267. PMID: 28123054

P4. Hunter MC, Pozhitkov A, **Noble PA***. (2017) Accurate predictions of postmortem interval using linear regression analyses of gene meter expression data. *Forensic Science International*. 275:90–101. Cited by: 7. Impact factor of 2.140. PMID: 28329724

P5. Hunter MC, Pozhitkov A, **Noble PA***. (2017) Datasets used to discover the microbial signatures of oral dysbiosis, periodontitis and edentulism in humans. *Data Brief* 10:30–32. PMCID: PMC5137327

P6. **Noble PA***, Pozhitkov A. (2017) The postmortem microbiome and gene expression in vertebrates. *The Biochemist* 39:14-17.

P7. Pozhitkov A. **Noble PA***. (2017) Gene Meter: accurate abundance calculations of gene expression. *Communicative and Integrative Biology* 10: e1329785. Cited by: 1. Impact factor of 1.56. Youtube video: https://youtu.be/neb907CQHJc PMID: 28919937

P8. Pozhitkov AE, **Noble PA***. (2017) Gene expression in the twilight of death. *BioEssays* 39 (9): 1700066, August 8, 2017 Cited by: 1. Impact factor of 4.725 Youtube video: https://youtu.be/NV1TYz_SbkU PMID: 28787088 Recommended in F1000PRIME (see doi:10.3410/F.727965647.793538051).

2016

P9. Hunter MC, Pozhitkov A, **Noble PA***. (2016) Microbial signatures of oral dysbiosis, periodontitis and edentulism revealed by Gene Meter methodology. *Journal of Microbiological Methods* 131:85-101 Cited by: 8, Impact factor of 2.544. PMID: 27717873

P10. Bagwell CE, Abernathy A, Barnwell R, Milliken CE, **Noble PA,** Dale T, Beauchesne KR, Moeller PDR. (2016) Discovery of bioactive metabolites in biofuel microalgae that offer protection against predatory bacteria. *Frontiers in Microbiology* 7:516 Cited by: 1. Impact factor of 4.165. PMID: 27148205

P11. **Noble, PA***, Park H-D, Olson BH, Asvapathanagul P, Hunter MC, Rosso D. (2016). A survey of biofilms on wastewater aeration diffusers suggests bacterial community composition and function varies by substrate type and time. *Applied Microbiology and Biotechnology* 100:6361-73. Cited by: 1. Impact factor of 3.3376. PMID: 27294381

2015

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P13. Pozhitkov A, Daubert D, BrochwiczDonimirski A, Goodgion D, Leroux B, Flemmig T, Hunter C, **Noble PA**, Bryers J.D. (2015) Interruption of electrical conductivity of titanium dental implants suggests a path towards elimination of the implant's corrosion. *PlosOne* 10:e0140393. Cited by: 3. Impact factor of 3.730. PMID: 26461491

2014

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2013

P16. Harrison A, Binder H, Buhot A, Burden C, Carlon E, Gibas C, Gamble L, Halperin A, Hooyberghs J, Kreil D, Levicky R, **Noble PA**, Ott A, Pettitt M, Tautz D, Pozhitkov AE. 2013. Physico-chemical foundations underpinning microarray and next generation sequencing experiments. *Nucleic Acids Research* 41:2779-96. Cited by: 45. Impact factor of: 9.112. PMID: 23307556

2012

P17. Kang H-Y, Rule RA, **Noble PA***. (2012) Artificial neural network modeling of phytoplankton blooms using long-term ecological research data sets and its application to sampling sites within the same estuary. *Treatise on Coastal and Estuarine Science* 9.09:161-171. Cited by: 3. Impact factor of: 3.20.

2011

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2010

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2008

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P22. Pozhitkov AE, Nies G, Kleinhenz B, Tautz D, **Noble PA***. (2008). Simultaneous quantification of multiple nucleic acids in target mixtures using high density microarrays. *Journal of Microbiological Methods* 75: 92-102. Cited by: 12. Impact factor of: 2.544. PMID: 18579240

P23. Gough, HL, Dahl AL, Tribou E, **Noble PA**, Gaillard J-F, Stahl DA. (2008). Elevated sulfate reduction in metal contaminated freshwater lake sediments. *Journal of Geophysical Research - Biosciences* 113:G04037. Cited by: 10. Impact factor of: 3.303.

2007

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P25. Pozhitkov A, **Noble PA***. (2007) Comment on discrimination of shifts in soil microbial communities using nonequilibrium thermal dissociation and gel pad array technology. *Environmental Science and Technology.* 41:1797-1798. Cited by: 7. Impact factor of: 4.764. PMID: 17396676

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P51. Dziuba M, **Noble PA*,** Albritton WL. (1993) A study of the nutritional requirements of a selected *Haemophilus ducreyi* strain by impedance and conventional methods. *Current Microbiology* 27:109-113. Cited by 9. Impact factor of: 1.815.

P52. **Noble PA*,** Ashton E., Davidson CA, Albritton WL. (1991) Heterotrophic plate counts of surface water samples by using impedance methods. *Applied and Environmental Microbiology* 57:3287-3291. Cited by: 22. Impact factor of: 4.486. PMID: 1781686

P53. **Noble* PA**, Dabinett PE, Gow JA. (1990) Numerical taxonomic study of pelagic and benthic surface-layer bacteria in seasonally-cold coastal waters. *Systematic and Applied Microbiology* 13:77-85. Cited by: 12. Impact factor of: 3.590.

Press Articles On My Research

A complete list of downloadable articles is available here: http://peteranoble.com/press.html

A1. Justin Petrone: Researchers develop new microarray experimental design that improves data quality, reliability. https://www.genomeweb.com/arrays/researchers-develop-new-microarray-experimental-design-improves-data-quality-rel *GenomeWeb* March 14, 2014.

A2. Anna Williams: Your death microbiome could catch your killer. https://www.newscientist.com/article/mg22329842-500-your-death-microbiome-could-catch-your-killer/ *New Scientist*, August 27, 2014.

A3. Jesse Jenkins: The death microbiome: invasion of the body snatchers. http://www.biotechniques.com/news/The-Death-Microbiome-Invasion-of-the-Body-Snatchers/biotechniques-353828.html#.V__PvGWCnFI *BioTechniques - The International Journal of Life Science Methods*, September 11, 2014.

A4. Anna Williams: Hundreds of genes seen sparking to life two days after death, http://www.newscientist.com/article/2094644 *New Scientist*, June 21, 2016.

A5. Mitchell Leslie: 'Undead' genes come alive after life ends, http://www.sciencemag.org/news/2016/06/undead-genes-come-alive-days-after-life-ends *Science*, June 22, 2016.

A6. Ryan O'Hare: Could there be life after death? Thousands of genes are seen coming to life TWO DAYS after animals die, http://www.dailymail.co.uk/sciencetech/article-3654014/Is-life-death-1-000-genes-switch-animals-die-hundreds-active-days-after.html *Daily Mail,* June 22,2016.

A7. Anonymous: Zombie Genes Awaken! https://www.genomeweb.com/scan/zombie-genes-awaken *GenomeWeb*, June 22, 2016.

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A9. Ben Taub: Zombie Genes That Wake Up After You Die Could Help To Predict Time Of Death, http://www.iflscience.com/health-and-medicine/zombie-genes-that-wake-up-after-you-die-could-help-to-predict-time-of-death/ *IFLScience!,* June 22, 2016.

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A12. Thomas Tamblyn: Is there life after death? Study finds evidence of hidden genes coming to life. http://www.huffingtonpost.co.uk/entry/is-there-life-after-death-study-finds-evidence-of-hidden-genes-coming-to-life-after-weve-died_uk_576baffbe4b0b1f1704fff0e *Huffington Post*, June 23, 2016.

A13. Sarah Emerson: Scientists Caught 'Undead' Genes Coming Alive After Death, http://motherboard.vice.com/read/scientists-caught-undead-genes-coming-alive-after-death *Motherboard*, June 23, 2016.

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A15. BEC Crew: Hundreds of genes spring to life up to 4 days after death, scientists find, http://www.sciencealert.com/hundreds-of-genes-caught-sparking-to-life-2-days-after-death *ScienceAlert,* June 23, 2016.

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A19. Len Rosen: When We Die Do We Die? http://www.21stcentech.com/die-die/ *21st Century Tech – A look at our future,* June 24, 2016.

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A34. Marta Musso: I geni continuano a essere attivi anche dopo la morte, http://www.galileonet.it/2016/06/geni-attivi-dopo-morte/ *Galileo*, June 27, 2016.

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Biocomplexity incubation activity: consequences of urban encroachment on natural ecosystems. NSF, 2002.

CISNET: Molecular to landscape monitoring of estuarine eutrophication. EPA-CISNET, 2002

Consortium for Ecoindicator Research for the Gulf of Mexico EPA 2001 STAR Program, EPA 2007.

MRI: Acquisition of a Roche/454 GS-Jr for Research and Training in Microbiology at Alabama State University, NSF Division of Biological Infrastructure, 2013.

Other Scholarly Activity

Patents

Pozhitkov, A. and P. A. Noble, (2005) Rapid and robust identification of known microorganisms in complex mixtures. Record of Invention, UW Ref#7346D.

Invited Lectures and Seminars

T1. Bugs in tubs: the microbial ecology of hot tub, Southern California American Society of Microbiology 58th Annual Meeting, San Diego, California, June, 1994.

T2. Pathogens in drinking water, waste and recreational water, American Society for Microbiology Workshop, Washington, DC, May, 1995.

T3. The identification, enumeration and detection of water-borne microbes, American Society for Microbiology Workshop, New Orleans, Louisiana, May, 1996.

T4. Controlling Microbes in drinking water: biostability, biofilms, pathogens and disinfectants, American Society for Microbiology Workshop, Miami Beach, Florida, May, 1997.

T5. Visualization of Microbial Genomes by Analysis of Tetranucleotide Frequencies, Seventh Annual South Carolina Statewide Research Conference, Wild Dunes, Isle of Palms, South Carolina, October, 1998.

T6. Neural computing approaches for analyzing microbiological data, American Society for Microbiology Workshop, Atlanta, Georgia, May, 1998.

T7. Determining the relationship between the ecological dynamic properties of an estuarine ecosystem and its corresponding microbial community structure, Southeastern Branches of the American Society for Microbiology, Jekyll Island, Georgia, October, 1999.

T8. The application of artificial neural networks to determine associations between biotic and abiotic factors in ecosystems, All EaGLes meeting, Annapolis, Maryland, Dec, 2002.

T9. Neuroet: an easy-to-use artificial neural network for ecological and biological modelling, 4th Conference of the International Society for Ecological Informatics, South Korea, October, 2004.

T10. Ecological informatics and grappling with the complexity of microorganisms in ecological systems, 4th Conference of the International Society for Ecological Informatics, South Korea, October, 2004.

T11. Evaluation of gel-pad oligonucleotide microarrays using artificial neural networks. American Society for Microbiology Meeting, Atlanta, GA, June, 12th, 2005.

T12. Oligonucleotide arrays: journey to the destination. Febit Biotech GmbH, Heidelberg, Germany, July, 19th, 2006.

T13. Oligonucleotide arrays: the journey and destination. FluIT Biosystems GmbH Schloss Birlinghoven, Germany, August 2nd, 2006.

T14. Oligonucleotide DNA microarrays for the identification of microorganisms. Institute of Oceanography, Chinese Academy of Sciences, Qingdao, China, October, 2006.

T15. Neuroet: an easy-to-use artificial neural network for ecological and biological modeling, Institute of Oceanography, Chinese Academy of Sciences, Qingdao, China, October, 2006.

T16. Simultaneous quantification of multiple rRNA targets in complex target samples. International Association for Dental Research, Toronto, Canada, July 2-5, 2008.

T17. Exploration of the human oral microbiota using next generation sequencing. Tuskegee University First Joint Symposium, March 12,13, 2010.

T18. Breathing New Life into DNA Microarrays, Public Health Seminar, University of California, Irvine, Monday, June 2nd, 2014.

T19. Death activates ancient genes. Sierra Club, Montgomery Alabama, June 18, 2015.

T20. Death awakens ancient genes. KAUST-University of California Irvine Symposium on 'Epigenetics and Environment' on 2-6 December 2015. King Abdullah University of Science and Technology, Thuwal, Saudi Arabia

Presentations at Conferences

Noble, P. A., E. Ashton, C. A. Davidson, M. Dziuba, K. D. Webster, and W. L. Albritton. Development of a biosensor for routine environmental microbiology. *Proceedings of the American Water Works Association, Water Quality Technological Conference,* Toronto, Ontario, pp. 1267-1280. 1992.

Noble, P. A. and W. L. Albritton. An insertion sequence located in the non-TnA portion of "RSF0885". *Canadian Society of Microbiologists Annual Meeting,* St. John's, Nfld., June 14-18, 1992.

Noble, P. A., L. Sawyer, D. L. Clark, S. W. Hermanowicz, and B. H. Olson. Biological stability of groundwater treated by conventional and membrane methods For Organic Removal. *American Water Works Association - Water Quality Technology Conference,* San Francisco, California, pp. 1609-1631, 1994.

Noble P.A., R.A. Rule, T Flemmig, T. Beikler, and A. Pozhitkov. Simultaneous quantification of multiple nucleic acid targets in complex target mixtures using high-density oligonucleotide microarrays. *Center for Process Analytical Chemistry* Seattle WA 2008, May 4-8, 2008

Noble P.A. A. Pozhitkov, and R.A. Rule. Establishing nearest neighbor model parameters for hybridization on the surface of microarrays. *Center for Process Analytical Chemistry* Seattle WA 2008, May 4-8, 2008

Professional Society Membership

American Society for Microbiology (1990-2012)
International Association for Dental Research (2008)

Professional Society and Other Service

Appointed to the Associate Editor of *Estuarine Coastal and Shelf Science,* 2014-2017.

Appointed to the Editorial Board of *Journal* of *Microbiological Methods,* 1999-present.

Appointed to the Editorial Board of *Microarrays (Now called High Throughput),* 2015-present.

Appointed to the Editorial Board of *Applied and Environmental Microbiology*, 1999-2001.

Re-Appointed to the Editorial Board of *Applied and Environmental Microbiology*, 2001-2004.

Organized and Co-Chaired an international conference entitled: "Physicochemical fundamentals of DNA hybridizations on surfaces as applied to microarrays and bead-based sequencing technologies ", which was held on May 9th to 12, 2011 at Max-Planck-Institute for Evolutionary Biology in Ploen, Germany. Web site: http://www.evolbio.mpg.de/ploenworkshop/

Reviews Made

Journal or Other	Number
Applied and Environmental Microbiology	190+
Journal of Microbiological Methods	100+
Nucleic Acids Research	5
Environmental Microbiology	9
Nature ISME	1
Botanica Marina	1
Journal of Shellfish Diseases	1
Journal of Industrial Microbiology	1
Genome Biology	1
Biotechnology Progress	1
Food Microbiology	1
Bioinfomatics	1
Photogrammetric Engineering and Remote Sensing	1
Estuarine, Coastal and Shelf Science	*5*
Journal of the American College of Nutrition	1
NSF Proposals	52+
NIH Proposals	50
DOE	2
National Environment Research Council UK	1
Nature	1
EPA	16
USDA	14

Undergraduate Students

Univ. California, Irvine

Emily Bruhms, (Environmental Analysis and Design) – taught microbiological methods.

Univ. South Carolina

Caroline Roper, (Marine Science) – taught molecular biology methods and was involved in mentoring. Now: Ph.D. from University of California, Davis. Assistant Prof at UCD.

Megan Dantzler, (Marine Science) – taught molecular biology methods. Now: Ph.D. at University of South Carolina

Sara Thieben and Megan Kelly (Marine Science) – taught laboratory and marine biology field skills.

Elizabeth Mack (Biology) – taught fundamentals of neural network computing and was involved in her Honors Thesis: The development of artificial neural networks for the exploration of population genetic data for the exploration of population genetic data. Now: M.D. at University of South Carolina.

Univ. Washington

Erik Tribou, (Computer Science) - supervised computer activities and mentored. Now: has M.S. (Computing) from the University of Las Vegas.

Travis Krick, (Computer Science) - supervised computer-related activities.

Kyle D. Bailey (BioChemistry) - supervised laboratory activities and mentored. Undergraduate Research Symposium 2006: Identification and quantification of microbes in complex microbial mixtures. K. Bailey, A. Pozhitkov and P. A. Noble. Now: a graduate student at Univ. Missouri.

Alison Thomas, MIAME standards adherence research project

Alisa Carlson, MIAME standards adherence research project

Alabama State University

Shayla M Duncan (American Society for Microbiology Undergraduate Research Capstone Program Scholar; National Institute of Standards and Technology 2014 Summer Undergraduate Research Fellow; Senior Capstone Fellow; 2015 Post-baccalaureate Program position at Experimental Transplantation and Immunology Branch of National Institute of Health)

Frances White

India Williams

Folasuyi Richardson (ASM undergraduate research honorable mentions award)

Suna M. Njie (Senior Capstone Fellow)

Jaylah Stanley

Taelor Jones

Graduate Students

Univ. South Carolina

Yvette M. Piceno, Ph.D. Student, - taught fundamentals of neural network computing. Now a scientist at Lawerence Livermore Laboratory, California

Univ. Washington

Evaristo Liwa, Ph.D. student (NSF fellow) in the Department of Oceanography and Coastal Sciences, Louisiana State University- Baton Rouge, LA -- taught fundamentals of neural network computing. Ph.D. Thesis (2006): A neural network model for classification of coastal wetlands vegetation structure with moderate resolution imaging spectro-radiometer (MODIS) data.

Rebecca A. Rule, M.Eng, Civil and Environmental Engineering. June 1st, 2007 - 2009. Now: USA Army Core of Engineers.

Hsu-Ya Kang, Ph.D, Civil and Environmental Engineering. Jan. 2009 –transferred to PhD Program at University of Taiwan.

Alabama State University

Cecile Mitchell, MS student, 2013 (graduated)

Ismail Can, MS student, 2014

M. Colby Hunter, PhD student, 2013-2016 (graduated), now Assistant Professor.

Other Student Supervision (service on graduate degree committees)

Ph.D. Committees

Univ. South Carolina

Hongyue Dang - taught molecular biology skills. Now: Professor at Institute of Oceanology Chinese Academy of Sciences, Qingdao, China

Univ. Washington

Jeremy Nadeau, Analytical Chemistry, Fall, 2006- graduated
Jennifer Maki, Analytical Chemistry, Spring, 2009- graduated

Alabama State University

Kelly Frazier, MS Forensic Science, Fall, 2013 – 2014

Research Activities

Sponsored Research

1997-2000 US Dept. of Defense/Office of Naval Research: Accelerated research in biofouling control, $383,251. Co-Principal Investigator with M. Fletcher and C.R. Lovell, Baruch Institute, University of South Carolina.

1999-2000 National Science Foundation: Determining genome organization by using a back propagating neural network, DEB Microbial Genetics, $28,680, Principal Investigator.

1999-2001 EPA/NOAA/NASA: CISNET- Molecular to landscape monitoring of estuarine eutrophication, $586,553. Co-Principal Investigator with J.T. Morris, M. Fletcher.

2000-2001 National Science Foundation: Novel mathematical approaches for determining ecosystem structure and dynamics. DEB Ecological Systems, $137,146. Principal Investigator.

2000-2002 National Science Foundation: Bicomplexity Incubation Activity: Consequences of urban encroachment on natural ecosystems.. DEB Ecological Systems, $93,409, Co-Principal Investigator with G. Kleppel.

2001-2005 Environmental Protection Agency: Consortium for Ecoindicator Research for the Gulf of Mexico EPA 2001 STAR Program, $6,000,000, Co-Principal with Marius Brouwer and others, University of Southern Mississippi.

2002-2006 National Institute of Dental and Craniofacial Research: DNA Microchips: Detecting microbes and virulence factors in oral cavity fluids, $3,938,123, Co-Principal.

2007-2008 University of Washington Provost Bridge Funding: Simultaneous quantification of multiple nucleic acids targets in complex microbial mixtures. $44,804, Principal Investigator.

2007-2008 University of Washington Royalty Research Fund: Simultaneous quantification of multiple microbes in complex microbial mixtures. $35,597, Principal Investigator.

2008-2010 Hach Memorial fund: Simultaneous quantification of microbial targets in mixtures using high density arrays. $25,800, Principal Investigator.

2010-2013 National Science Foundation: Major Research Instrumentation: Acquisition of a Roche/454 GS-Jr for Research and Training in Microbiology at Alabama State University. $107,200 (funded) + 30,000 matching funds. Principal Investigator.

2011-2011 Molecular Devices- Microarray Systems: Funding for the Conference entitled "Physical chemistry of DNA hybridizations occurring on the solid surfaces as applied to microarray and bead-based sequencing technologies" at Max-Planck-Institute in Ploen Germany, May 9 to 12, 2011, $1,500, Principal Investigator.

2011-2012 MESC: Microbial community activities in seawater amended with MR252 oil and Corexit 9500. $35,000, Principal Investigator.

2012-2012 ASU Provost Innovation Award: SEED-SET -- SEED money to Strengthen a NIH proposal, Enhance national and international research collaborations at top universities, and Train undergraduate students on a state-of-the-art DNA sequencing instrument. $6000, Principal Investigator.

2012-2012 University of Düsseldorf : Matching funds to SEED-SET grant, $5,972, Principal Investigator.

2013-2014 National Institute of Health R21: Transplantation of health-associated oral microbiome for treatment of periodontitis. Collaboration with University of Washington. (Scored 23).

Approved for funding by NIH – but declined by the University of Washington, Co-Principal Investigator.

2014-2015 International Team for Implantology: Submucosal microbiome and titanium corrosion in peri-implantitis. Collaboration with University of Washington and University of Düsseldorf. $25,500, Co-Principal Investigator.

2013-2014 University of California Irvine: DNA sequencing of biofilms from sludge bioreactors. $10,000, Principal Investigator.

2013-2014 University of Düsseldorf: DNA sequencing of canine periodontal samples. $3,600, Principal Investigator.

2014-2017 National Science Foundation: RIA: Life after death: the human thanatomicrobiome in organs as a function of post-mortem interval, $200,000, Faculty mentor.

Short courses, workshops, and other educational programs

Pathogens in drinking water, waste and recreational water, American Society for Microbiology Workshop, Washington, DC, day-long workshop, 1995.

The identification, enumeration and detection of water-borne microbes, American Society for Microbiology Workshop, New Orleans, Louisiana, day-long workshop, 1996.

Controlling microbes in drinking water: biostability, biofilms, pathogens and disinfectants, American Society for Microbiology Workshop, Miami Beach, Florida, day-long workshop, 1997.

Neural computing approaches for analyzing microbiological data, American Society for Microbiology Workshop, Atlanta, Georgia, day-long workshop, 1998.

Organized an international conference entitled: "Physical chemistry of DNA hybridizations occurring on the solid surfaces as applied to microarray and bead-based sequencing technologies". Max-Planck-Institute in Ploen Germany, May 9 to 12, 2011.

Organized a College workshop entitled: "Use of Roche 454 Pyrosequencer: Genomes, Metagenomes, and Transcriptomes", Alabama State University, Montgomery, AL, Sept. 25th, 2012.

Service

College Service

NSF ADVANCE Cross-Department Cultural Change Program member: Winter, Spring, Fall 2004-2005
Chair of 2013 Research Symposium, Alabama State University, Montgomery AL, March 20-21, 2013
Chair of 2014 Research Symposium, Alabama State University, Montgomery AL, March 19-20, 2014
Chair of 2015 Research Symposium, Alabama State University, Montgomery AL, March 18-19, 2015

National Service

2002 NSF Biological Oceanography Review Panel
2003 NIH Oral Cavity Review Panel
2004 NIH Oral Cavity Review Panel

2006 (Feb and March) EPA Biological Oceanography Review Panels
2010 (Feb and March) EPA Star Program Review Panels
2011 USDA Review Panel - Animal health and disease
2013 NIH Human Microbiome Review Panel
2013 NSF Division of Biological Infrastructure Review Panel
2015 NSF Division of Biological Review Panel

All Other Service

Science Judge at 2011 Louis Strokes Alliance for Minority Participation poster competition, Renaissance Hotel, Montgomery AL, April 11, 2011.

Science Judge at 2012 Annual Biomedical Research Conference for Minority Students, San Jose, CA, November 7-10, 2012

Sponsored Visiting Professor (at Baruch Institute, Univ. South Carolina): Prof. Jonas S. Almeida, (1998-2000) from New University of Lisbon (Universidade Nova de Lisboa), Portugal. Now: Full Prof. at University of Texas, Huston, TX.

Mentored post-doctoral fellow: Alex Pozhitkov (at University of Washington), He just finished as Research Associate, Max-Planck-Institute for Evolutionary Biology. Ploen, Germany and was a Research Associate and NIH scholar at the University of Washington and Fred Hutchinson Cancer Research Institute and is now Associate Director of Informatics at City of Hope Beckman Research Center, CA.

Mentored post-doctoral fellow: Hidetoshi Urakawa at the University of Washington. He was associate professor of The Ocean Research Institute, The University of Tokyo and is now an associate professor in Florida.

Courses Taught

University	**Course**	**Course Title**	**Quarter**	**Credit hours**	Students
University of California, Irvine	BIO 101	Intro Biology Course	Fall 1995	3	60
University of Washington	CEE 700	Graduate Research F06	Fall 2006	2	1
	CEE 700	Graduate Research W07	Winter 2007	2	1
	CEE 700	Graduate Research S07	Spring 2007	2	1
	CEE 700	Graduate Research F08	Fall 2008	2	1
	CEE 700	Graduate Research W09	Winter 2009	10	1
	CEE 700	Graduate Research S09	Winter 2009	2	1
	CEE 600	Graduate Research W09	Winter 2009	3	1
	CEE 600	Graduate Research S09	Spring 2009	3	1
Alabama State University	BIO 730.1	Microbial Physiology	Fall 2009	3	10
	CHE 700.1	Biochemistry	Winter 2010	3	3
	BIO 614	Applied Microbiology	Fall 2010	4	2

	BIO 614/702	Applied Microbiology	Winter 2011	4	2
	BIO 619/704	Molecular Genetics	Spring 2012	4	2
	BIO 614/701	Applied Microbiology	Fall 2012	4	5
	BIO 719-01	Scientific Writing and Presentation	Winter 2013	4	1
	BIO 521	Bioinstrumentation and Biotechniques	Summer 2013	4	6
	BIO 730.1	Microbial Physiology	Fall 2013	3	10
	BIO 740.1	Environmental Microbiology	Winter 2014	4	1
	BIO 799	Graduate Research	Winter 2014	1	1
	BIO805	Microbial Ecology	Summer 2014	4	4
	BIO 799	Graduate Research	Summer 2014	1	1
	BIO521	Bioinstrumentation and Biotechniques	Fall 2014	4	5
	BIO 799	Graduate Research	Fall 2014	1	1
	BIO835	Water Microbiology/Distribution Systems	Fall 2014	4	10
	BIO730	Genomes and Genes	Spring 2015	3	3
	BIO730.1	Microbial Physiology	Fall 2015	3	1
	BIO700	Biostatistics	Winter 2016	3	10

References for Peter A. Noble

1. Dr. Alex Pozhitkov, Senior Technical Lead in Research Applications. Associate Director. City of Hope, Information Sciences - Beckman Research Institute, 4920 Rivergrade Rd., Irwindale, CA 91706 Email: apozhitkov@coh.org Phone: 626 218-6647

2. Dr. Christopher (Kitt) Bagwell, Energy and Environmental Directorate, Pacific Northwest National Laboratory, 902 Battelle Boulevard, P.O. Box 999, MSIN P7-59, Richland, WA 99352 Email: christopher.bagwell@pnnl.gov Phone: 509-375-3744

3. Professor Shivani Soni, Department of Biological Sciences, California State University Fullerton, CA, Email: shivani_soni_2000@yahoo.com Phone: 617-501-0937

4. Professor and Chair Oladele Ogunseitan, Department of Population Health & Disease Prevention, Director of Research Education, Training and Career Development, Institute for Clinical and Translational Science, Board Member, UC Global Health Institute University of California, Irvine. 92697 Email: oladele.ogunseitan@uci.edu Phone: 949-824-0611

5. Professor Betty H. Olson, Civil and Environmental Engineering, Associate Director Urban Water Institute, University of California, Irvine. 92697 Email: bholson@uci.edu Phone: 949 824-5281

6. Director Prof. Diethard Tautz, Max-Planck-Institute for Evolutionary Biology, Ploen, Germany, August-Thienemannstrasse 2, 24306 Ploen (Germany) Email: tautz@evolbio.mpg.de Phone: 011 49 4522 763 390

7. Professor Diego Ross, Civil and Environmental Engineering, Director Urban Water Institute, University of California, Irvine. 92697 Email: bidui@uci.edu Phone: (949) 824-8661