

Ameet J. Pinto

Assistant Professor

Northeastern University

Department of Civil & Environmental Engineering

417 Snell Engineering, 360 Huntington Avenue, Boston, MA 02115

Phone: 617-373-5241 Fax: 617-373-4419

Email: a.pinto@northeastern.edu

Education

- 2009 Doctor of Philosophy in Civil Engineering,
Virginia Polytechnic Institute and State University, Blacksburg, VA.
Dissertation: *Heavy metal upset events at wastewater treatment plants: Implications for mitigative strategy development and bioreactor microbial ecology*, Adviser: Prof. Nancy G. Love.
- 2005 Master of Science in Environmental Engineering
University of Alaska Fairbanks, Fairbanks, AK.
Thesis: *Estimating seasonal and diurnal variations in influent wastewater characteristics for optimization of activated sludge systems in a northern community*. Advisers: Prof. David L. Barnes, Prof. Daniel M. White
- 2003 Bachelor of Chemical Engineering, First Class,
Institute of Chemical Technology, University of Mumbai, Mumbai, India.

Employment History: Academic Experience

- 2016 – Assistant Professor, Department of Civil and Environmental Engineering,
Northeastern University, Boston, MA.
- 2015 – 2016 Senior Lecturer, Infrastructure and Environment Research Division, School of
Engineering, University of Glasgow, Glasgow, UK.
- 2012 – 2015 Lecturer, Infrastructure and Environment Research Division, School of
Engineering, University of Glasgow, Glasgow, UK.
- 2009 – 2012 Postdoctoral Research Fellow, Department of Civil and Environmental
Engineering, University of Michigan. Project: *Microbial ecology of drinking
water treatment and distribution systems*. Supervisors: Prof. Lutgarde Raskin,
Prof. Chuanwu Xi

Awards and Honors

- 2018 ISME/IWA Bio Cluster Award (Rising Star)
- 2018 NSF Faculty Early CAREER Award
- 2014 Bright IDEAS Award, Engineering and Physical Sciences Research Council, UK
- 2013 First Grant Scheme, Engineering and Physical Sciences Research Council, UK
- 2013 Start Grant, The Royal Society, UK
- 2005-2006 Deans List of Outstanding Instructors, Virginia Tech, USA

Professional Society Membership

Association of Environmental Engineering and Science Professors (AEESP)

American Chemical Society (ACS)

American Water Works Association (AWWA)

International Water Association (IWA)

International Society of Microbial Ecology (ISME)

RESEARCH

Peer reviewed manuscripts (J)

- J1. Fedders, A.C., DeBellis, J.L., Bradley, I.M., Sevillano-Rivera, M.C., Pinto, A.J., and Guest, J.S. (accepted) "Comparable nutrient uptake across diel cycles from three distinct algal communities". **Environmental Science and Technology**.
- J2. Calus, S.T, Ijaz, U.I., Pinto, A.J. (2018 - accepted) "NanoAmpli-Seq: A workflow for amplicon sequencing from mixed microbial communities on the nanopore sequencing platform". **GigaScience**. Manuscript on **Biorxiv at DOI: [10.1101/244517](https://doi.org/10.1101/244517)**
- J3. Potgieter, S., Pinto, A.J., Sigudu, M., du Preez, H., Ncube, E, Venter, S. (2018) "Long-term spatial and temporal microbial community dynamics in a large-scale drinking water distribution system with multiple disinfectant regimes." **Water Research**. DOI: [10.1016/j.watres.2018.03.077](https://doi.org/10.1016/j.watres.2018.03.077)
- J4. Liu, G., Zhang, U., van der Mark, E., Knezev, A., Pinto, A.J., van den Bogert, B., Liu, W.T., van der Meer, W., and Medema, G. (2018) "Assessing the origin of bacteria in tap water and distribution system in an unchlorinated drinking water system by SourceTracker using microbial community fingerprints". **Water Research**. Vol 138, 86-96. DOI: [10.1016/j.watres.2018.03.043](https://doi.org/10.1016/j.watres.2018.03.043)
- J5. De Vriese, J., Pinto, A.J., Sloan, W.T., and Ijaz, U.I. (2018) "The active microbial community more accurately reflects the anaerobic digestion process: 16S rRNA (gene) sequencing as a predictive tool". **Microbiome**. Vol 6, 63. DOI: [10.1186/s40168-018-0449-9](https://doi.org/10.1186/s40168-018-0449-9)
- J6. Chao, L., Olivares, C., Pinto, A.J., Lauderdale, C., Brown, J., Selbes, M., and Karanfil, T., (2017-accepted) "The control of disinfection by-products and their precursors in biologically active filtration processes". **Water Research**. Vol 124, 63-653. DOI: [10.1016/j.watres.2017.07.080](https://doi.org/10.1016/j.watres.2017.07.080)
- J7. Chia-Chen, W., Ghosh, S., Martin, K., Pinto, A.J., Denef, V.J., Olson, T.M., and Love, N.G. (2017) "The microbial colonization of activated carbon block point-of-use (PoU) filters with and without chlorinated phenol disinfection byproducts". **Environmental Science: Water Research and Technology**. Vol 3, 830-843. DOI: [10.1039/C7EW00134G](https://doi.org/10.1039/C7EW00134G)
- J8. Sismaet, H.J., Pinto, A.J., and Goluch, E.D. (2017) "Electrochemical sensors for identifying pyocyanin production in clinical Pseudomonas aeruginosa isolates. **Biosensors and Bioelectronics**. Vol 97, 65-69. DOI: [10.1016/j.bios.2017.05.042](https://doi.org/10.1016/j.bios.2017.05.042)
- J9. Marcus, D.N, Pinto, A.J., Anantharaman, K, Ruberg, S., Kramer, E., Raskin, L., and Dick, G. (2017) "Diverse manganese (II)-oxidizing bacteria are prevalent in drinking water". **Environmental Microbiology Reports**. Vol 9, 120-128. DOI: [10.1111/1758-2229.12508](https://doi.org/10.1111/1758-2229.12508)
- J10. Bradley, I., Pinto, A.J., and Guest, J.S. (2016) "Design and evaluation of Illumina MiSeq compatible primers for the 18S rRNA gene for improved characterization of mixed microalgal communities". **Applied and Environmental Microbiology**. DOI: [10.1128/AEM.01630-16](https://doi.org/10.1128/AEM.01630-16)

- J11. Bautista, Q.M., Schroeder, J., Sevillano, M.C.R, Sungthong, R., Ijaz, U., Sloan, W.T., and Pinto, A.J. (2016) “Drinking water microbial communities across disinfection strategies – a meta-analysis”. **Environmental Science: Water Research and Technology**. Vol. 2, pp. 631-644. DOI: [10.1039/C6EW00030D](https://doi.org/10.1039/C6EW00030D)
- J12. Clancy, T.M., Smith, A., Reddy, R., Pinto, A.J., Hayes, K., and Raskin, L. (2016) “Anaerobic microbial community response to methanogenic inhibitors 2-bromoethanosulfonate and propionic acid”. **Microbiology Open**. Vol 5, pp. 537-550. DOI: [10.1002/mbo3.349](https://doi.org/10.1002/mbo3.349)
- J13. Pinto A.J., Sharp, J.O., Yoder, M.J., and Almstrand, R. (2016): “Draft genome of two novel *Acidimicrobiaceae* from an acid mine drainage biofilm metagenome.” **Genome Announcements**, Vol. 4, pp. e01563-15. DOI: [10.1128/genomeA.01563-15](https://doi.org/10.1128/genomeA.01563-15).
- J14. Almstrand, R., Pinto, A.J., Figueroa, L.A., and Sharp, J.O. (2016): “Draft genome of a novel *Desulfobacteraceae* member from a sulfate-reducing bioreactor metagenome”. **Genome Announcements**, Vol. 4, pp. e01540-15. DOI: [10.1128/genomeA.01540-15](https://doi.org/10.1128/genomeA.01540-15).
- J15. Bautista, Q.M, Blakemore, O., Schroeder, J., Moses, J., Haffey, M., Sloan, W., and Pinto, A.J. (2016): “The impact of sampling, PCR, and sequencing replication on discerning changes in drinking water bacterial community over diurnal time-scales”. **Water Research**, Vol. 90, pp 216-224. DOI: [10.1016/j.watres.2015.12.010](https://doi.org/10.1016/j.watres.2015.12.010).
- J16. Pinto, A.J., Marcus, D.N., Ijaz, U.Z., Bautista, Q.M., Dick, G.J. and Raskin, L. (2015): “Metagenomic evidence for the presence of comammox *Nitrospira*-like bacteria in a drinking water system” **mSphere J**, Vol. 1, pp. e00054-15. DOI: [10.1128/mSphere.00051-15](https://doi.org/10.1128/mSphere.00051-15). (Note: Featured in **Science Magazine**, DOI: [10.1126/science.aad9839](https://doi.org/10.1126/science.aad9839))
- J17. Schroeder, J., Lunn, M., Pinto, A.J., Raskin, L., and Sloan, W.T. (2015): “Probabilistic models to describe the dynamics of migrating microbial communities”. **PLoS One**, Vol. 10, pp. e0117221. DOI: [10.1371/journal.pone.0117221](https://doi.org/10.1371/journal.pone.0117221).
- J18. Pinto, A.J., Schroeder, J., Lunn, M., Sloan, W.T., and Raskin, L. (2014): “Spatial-temporal survey and occupancy-abundance modeling to predict bacteria community dynamics in the drinking water microbiome”. **mBio J**, Vol. 5, pp. e01135-14. DOI: [10.1128/mBio.01135-14](https://doi.org/10.1128/mBio.01135-14).
- J19. Chiao, T.C., Clancy, T., Pinto, A.J., Xi, C., and Raskin, L. (2014): “Differential resistance of drinking water bacterial populations to monochloramine disinfection,” **Environmental Science & Technology**, Vol. 48, pp 4038-4047. DOI: [10.1021/es4055725](https://doi.org/10.1021/es4055725).
- J20. Pinto, A.J. and Raskin, L. (2012): “PCR biases distort bacterial and archaeal community structure in pyrosequencing datasets” **PLoS One**, Vol. 7, pp e43093. DOI: [10.1371/journal.pone.0043093](https://doi.org/10.1371/journal.pone.0043093). (Note: Recommended article by F1000 Prime. DOI: [10.3410/f.718417056.393498737](https://doi.org/10.3410/f.718417056.393498737))
- J21. Pinto, A.J., Xi, C., and Raskin, L. (2012): “Bacterial community structure in the drinking water microbiome is governed by filtration processes” **Environmental Science & Technology**, Vol. 46, pp 8851-8859. DOI: [10.1021/es302042t](https://doi.org/10.1021/es302042t). (Note: Press release issued by [American Chemical Society](https://www.acs.org) and featured in [The Scientist](https://www.sciencemag.org) and [The New Scientist](https://www.newscientist.com) magazines).
- J22. Pinto, A.J., and Love, N.G. (2012): “Bioreactor function under perturbation scenarios is affected by interactions between bacteria and protozoa” **Environmental Science & Technology**, Vol. 45, pp 7558-7566. DOI: [10.1021/es301220f](https://doi.org/10.1021/es301220f).
- J23. Pinto, A.J., Guest, J., Love, N., Shaw, A., Fairey, A., Iler, P., Earle, J., Shellenbarger, D., Barker, D (2007): “Testing corrective action strategies to mitigate the impact of toxic shock

events in activated sludge systems” Water Practice, Vol. 1, pp. 1-11. DOI: [10.2175/193317707X256973](https://doi.org/10.2175/193317707X256973).

Technical reports published (T)

- T1. Zhang, Y., Edwards, M., Pinto, A.J., Love, N., Camper, A., Rahman, M., and Baribeau, H. (2010) Effect of Nitrification on Corrosion in the Distribution System. American Water Research Foundation.
- T2. Love, N.G., Pinto A.J., Guest, J.S., Hardin S.C., and Shaw, A. (2009) Determining and Assessing Corrective Action strategies for Treatment Plants Exposed to Chemical Toxins. Water Environment Research Foundation. Project number: 04-CTS-11S

Posters and Presentations at Conferences, Research Expositions, or Seminars (P)

Conference proceedings

- P1. Pinto, A.J., Marcus, D.M., Ijaz, U., Dick, G., and Raskin, L. (2015): “Genomic insights into the Survival and Proliferation of Bacteria in Drinking Water Systems”. **International Water Association: Biofilms in Drinking Water Systems**. Arosa, Switzerland, 2015
- P2. Pinto, A.J., Marcus, D., Dick, G., and Raskin, L. “Metagenomic insights into bacteria that dominate drinking water bacterial communities.” **Water Quality and Technology Conference**. New Orleans, Louisiana, USA, 2014.
- P3. Bautista, Q.M., Blakemore, O., Schroeder, J., Sloan, W.T., and Pinto A.J. (2014) “Uncertainties associated with characterisation of bulk water bacterial communities in drinking water systems.” **Water quality and Technology Conference**. New Orleans, Louisiana, USA 2014.
- P4. Pinto, A.J., Chiao, T.C., Xi, C., and Raskin L. (2011). “Influence of Microbial Migration and Infiltration on Bulk Water Microbiota in a Drinking Water Treatment and Distribution System.” **Water Quality Technology Conference and Exposition**. Phoenix, Arizona, 2011.
- P5. Clancy, T., Jenkins, A., Chiao, T., Snyder, K., Upadhyaya, G., Pinto, A. J., Brown, J., Xi, C, Hayes, K., and Raskin, L. (2011). “Evaluating Backwashing and Disinfection to Ensure Optimal Chemical and Microbiological Effluent Quality from a Fixed-Bed Bioreactor Designed for Simultaneous Removal of Nitrate, Sulfate, and Arsenate from Groundwater”. **Water Quality Technology Conference and Exposition**. Phoenix, Arizona, 2011.
- P6. Chiao, T., Pinto, A.J., Xi, C., and Raskin, L. (2010). “A Culture Independent Alternative to Determine Inactivation Kinetics of Mixed Microbial Communities in Drinking Water Systems.” **Water Quality Technology Conference and Exposition**, Savannah, Georgia, 2010.
- P7. Pinto, A.J., Hardin, S.C., Love, N.G., Fairey, A., Earle, J., Washington, P., Iler, P., Doane-Weideman, T., and Lagrange, R. (2009) “Remedial Intervention Strategies for Wastewater Treatment Plant Exposed to Heavy Metal Stress: Laboratory and Pilot Scale Evaluations.” **Proceedings of the 82nd Water Environment Federation Technical Exposition and Conference**, Orlando, Florida, 2009.
- P8. Thomas, W.A., Bott, C.B., Regmi, P., Schafran, G., Pinto, A.J., Love, N.G., McQuarrie, J., Rutherford, B., Baulmer, R., Waltrip, D. (2009): “Evaluation of Nitrification Kinetics for a

- 2.0 MGD IFAS demonstration project. **Proceedings of the 82nd Water Environment Federation Technical Exposition and Conference**, Orlando, Florida, 2009
- P9. Pinto, A.J., Love, N.G., Fairey, A., Earle, J., Washington, P., Iler, P., Doane-Weideman, T., and Lagrange, R. (2009) “Integration of Online Sensors with Corrective Action Strategies to Detect, Monitor, and Mitigate Toxic Shock Events at Nutrient Removal Wastewater Treatment Plants.” **Water Environment Federation: Nutrient Removal Conference**. Washington, DC, 2009.
- P10. Pinto, A.J., Hardin, S., and Love, N.G. (2008): “Structural and Functional Responses of the Ammonia Oxidizing Community in Activated Sludge Exposed to Cadmium Stress.” **Proceedings of the 81st Water Environment Federation Technical Exposition and Conference**, Chicago, Illinois, 2008.
- P11. Hardin, S.C., Pinto, A.J., and Love, N.G. (2008) “Impact of Contaminant Specific Corrective Action Strategies on Wastewater Treatment Plant Performance and Recovery” **Proceedings of the 81st Water Environment Federation Technical Exposition and Conference**, Chicago, Illinois, 2008.
- P12. Guest, J.S., Pinto, A. J., Love, N.G., and Shaw, A. (2007) “Corrective Action Strategies During Toxic Shock Events at Enhanced Biological Phosphorus Removal Wastewater Treatment Plants.” **Proceedings of the Water Environment Federation Technical Exposition and Conference**, San Diego, California, , 2007.
- P13. Pinto, A.J., Hardin, S.C., Guest, J.S. N.G. Love, and Shaw. A (2007) “Elucidating the Importance of Contaminant Specific Corrective Action Strategies for Wastewater Treatment Plants During Toxic Shocks.” **Proceedings of the Water Environment Federation Technical Exposition and Conference**, San Diego, California, 2007.
- P14. Pinto, A. J., Barnes, D. L., and White, D. M. (2005) “Estimating Seasonal and Diurnal Variations in Influent Characteristics for Optimization of Aeration Operations: A Case Study for Applicability of Respirometric Techniques at Fairbanks, Alaska.” **Proceeding of the World Water Congress American Society of Civil Engineers**, Anchorage, Alaska, 2005

Invited Talks

- P15. Pinto, A.J. (2018). “Who’s in your water”. **Clemson University**, Clemson, SC.
- P16. Pinto, A.J. (2018). “The Who, where, and (somewhat) why of the drinking water microbiome”. **6th Arab-American Frontiers Symposium**. Kuwait City, Kuwait.
- P17. Pinto, A.J. (2018). “Bridging Microbial Ecology and Engineering Practice in Drinking Water Microbiology”. **WEFTEC 2018**. New Orleans, Louisiana.
- P18. Pinto, A.J. (2018). “Towards real-time monitoring and management of the drinking water microbiology.” **International Water Association World Water Congress 2018**. Tokyo, Japan.
- P19. Pinto, A.J. (2018). “Observing, understanding, and managing the drinking water microbiome.” **Water Institute of South Africa 2018**. Cape Town, South Africa.
- P20. Pinto, A.J. (2018). “Genome-resolved metagenomics to assess the long-term impact of disinfection on the drinking water microbiome”. **255th American Chemical Society National Meeting & Expo 2018**. New Orleans, Louisiana.
- P21. Pinto, A.J. (2018). “From Observation to Manipulation: Leveraging ecological theory and computational biology to manage the drinking water microbiome”. **University of Massachusetts, Amherst**.

- P22. Pinto, A.J. (2018). “Drinking Water Microbial Ecology”. **American Society of Microbiology Microbe 2018**. Atlanta, Georgia. (Plenary talk).
- P23. Pinto, A.J. (2018) “Should we disinfect drinking water?” **258th American Chemical Society National Meeting & Expo 2018**. Boston, MA.
- P24. Pinto, A.J. (2017): “Microbiological advances in the drinking water sector”. **10th Annual Conference of the UK Network on Potable Water Treatment and Supply**. Cranfield University, UK.
- P25. Pinto, A.J. (2017): “The who, the where, and why of the drinking water microbiome”. **University of Glasgow**, Glasgow, UK.
- P26. Pinto, A.J. (2017): “The who, the where, and why of the drinking water microbiome”. **Newcastle University**, Newcastle-upon-Type, UK.
- P27. Pinto, A.J. (2017): “Microbially mediated nitrogen transformations in engineered water systems”. **University of Illinois Urbana Champaign**. Champaign, IL, USA.
- P28. Pinto, A.J. (2016): “Managing microbes at the tap”. **MicroSeminar**. YouTube, 2016 (https://www.youtube.com/watch?v=qc_kEpMV9fU&feature=youtu.be)
- P29. Pinto, A.J. (2016): “Predicting microbial incidents in drinking water systems”. **Chartered Institute of Water and Environmental Management**. London, United Kingdom, 2016.
- P30. Pinto, A.J. (2016): “Engineering the drinking water microbiome”. **Tufts University**, 2016.
- P31. Pinto, A.J. (2016): “Directions for drinking water microbial ecology”. **DC Water**, 2016
- P32. Pinto, A.J. (2016): “Engineering the drinking water microbiome”. **Lund University**, Sweden, 2016.
- P33. Pinto, A.J. (2016): “Trends and emerging technologies in DNA sequencing”. **BTO Trends**. KWR Watercycle Research Institute, Nieuwegein, Netherlands, 2016.
- P34. Pinto, A.J. (2016): “Microbial survival in drinking water systems”. **Society of Industrial Microbiology and Biotechnology**. New Orleans, Louisiana, 2016.
- P35. Pinto, A.J. (2015): “Managing and Exploiting the Drinking Water Microbiome” (Keynote). **Wetsus Annual Congress**. Leeuwarden, Netherlands, 2015.
- P36. Pinto, A.J. (2015): “Monitoring and exploiting biology in drinking water systems”. **Cranfield University**. Milton Keynes, United Kingdom, 2015.
- P37. Pinto, A.J. (2015): “Managing the Drinking Water Microbiome” (Keynote). **International Water Association: Biofilms in Drinking Water Systems**. Arosa, Switzerland, 2015.
- P38. Pinto, A.J. (2015): “Measuring, managing, and exploiting microorganisms in drinking water systems”. **World Water Congress XV, International Water Resources Association**. Edinburgh, UK, 2015.
- P39. Pinto, A.J. (2015): “Managing and Exploiting the Drinking Water Microbiome”. **Rand Water Company and University of Pretoria**. Johannesburg, South Africa, 2015.
- P40. Pinto, A.J. (2014): “Microbial detection and prediction – The road ahead for drinking water quality management”. **University of Ghent**. Ghent, Belgium 2014.
- P41. Pinto, A.J and Raskin, L. (2014): “Microbial dynamics in drinking water systems”. **International Society of Microbial Ecology – 15**. Seoul, South Korea, 2014.
- P42. Pinto, A.J. (2014): “Developing a predictive framework for microbial management in drinking water systems”. **Marine Biological Laboratories**. Plymouth, United Kingdom. 2014.
- P43. Pinto, A.J. (2014): “Bacterial community dynamics in drinking water systems: Moving from observations to prediction”. **Pidpa Water Company**, Antwerp, Belgium, 2014.

- P44. Pinto, A.J. (2014): “Bacterial community dynamics in drinking water systems: Moving from observations to prediction”. **University of Birmingham**, Birmingham, UK, 2014.
- P45. Pinto, A.J. (2014): “Microbes in urban water infrastructure: Implications of structure and function”. **University of Oxford**, Oxford, UK, 2014.
- P46. Pinto, A.J. (2014): “Developing a predictive framework for microbial management in drinking water systems”. **University of Michigan**. Ann Arbor, Michigan, 2014.
- P47. Pinto, A.J. (2013): “Microbial dynamics in drinking water systems”. **Newcastle University**, Newcastle, United Kingdom, 2013.
- P48. Pinto, A.J. (2012): “Drinking water microbial ecology”. **KWR Water Cycle Research Institute**, Nieuwegein, Netherlands, 2012.

Presentations: International Conferences

- P49. Sevillano-Rivera, M.C., Dai, Z., Calus, S.T., Bautista de los Santos, Q.M. and Pinto, A.J. (2018) “Are there differentially abundant antibiotic resistance genes associated with chlorinated drinking water system as compared to non-disinfected systems”. **International Society of Microbial Ecology -17**, Leipzig, Germany. (poster)
- P50. Vosloo, S., Pinto, A.J., Venter, F., Crous, M., du Preez, H., Sigudu, H. (2018) “Spatial and temporal variability of bacterial and archaeal communities in rapid sand filters”. **International Society of Microbial Ecology -17**, Leipzig, Germany. (poster)
- P51. Dai, Z., Sevillano-Rivera, M.C., Calus, S.T., Bautista de los Santos, Q.M., Ijaz, U. I., and Pinto, A.J. (2018) “Elucidating the long-term impact of disinfected strategies on the drinking water microbiome”. **International Society of Microbial Ecology -17**, Leipzig, Germany. (poster)
- P52. Vilardi, K., Cotto, I, and Pinto, A.J. (2018) “Enrichment and isolation of complete ammonia oxidizing bacteria from full-scale wastewater treatment plant”. **International Society of Microbial Ecology -17**, Leipzig, Germany. (poster)
- P53. Cotto, I., Vilardi, K.J., Khunjar, W.O., Wilson, C., De Clippelier, H., and Pinto, A.J. (2018) “Detection and quantification of comammox bacteria in nitrogen removal systems from wastewater treatment plants”. **International Society of Microbial Ecology -17**, Leipzig, Germany. (poster)
- P54. Calus, S.T., Ijaz, U.I., and Pinto, A.J. “NanoAmpli-Seq: a de novo protocol for amplicon sequencing from mixed microbial communities”. **International Society of Microbial Ecology -17**, Leipzig, Germany. (poster)
- P55. Dai, Z., Sevillano-Rivera, M.C., Bautista de los Santos, Q.M., Ijaz, U.I., and Pinto, A.J. (2018) “Elucidating the long-term impact of disinfection strategies on the drinking water microbiome”. **IWA-Leading Edge Technology Conference 2018**. Nanjing, China.
- P56. Barteleme, R., Pinto, A.J., Delmont, T., Eren, A.M., and Newton, R. (2017) “The comammox tradeoff: Loss of metabolic diversity for thermodynamic advantage”. **International Conference on Nitrification – 5**, Vienna, Austria.
- P57. Bautista, Q.M., Calus, S.T., Dai, Z., Sevillano-Rivera, M., Sungthong, R., Ijaz, U., Sloan, W.T., and Pinto, A.J. (2016) “Understanding drinking water systems through molecular microbial ecology”. **Federation of Infection Societies and Healthcare Infection Society 10th International conference**. Edinburgh, UK, 2016.
- P58. Sungthong, R., Sevillano-Rivera, M.C. and Pinto, A.J. (2016) “Cell phone fluorometer as a novel quantitative tool kit for monitoring biofilm removal efficiency”. **Antimicrobial**

- Resistance in Microbial Biofilms and Options for Treatment.** Ghent, Belgium, 2016. (poster).
- P59. Sevillano-Rivera, M.C., Knapp, C.W., Calus, S.T. and Pinto, A.J. (2016) “Does water stress increase the incidence of antibiotic resistance genes in drinking water supplies”. **Microbial Ecology and Water Engineering.** Copenhagen, Denmark, 2016.
- P60. Dai, Z., Sevillano-Rivera, M.C., Bautista, Q.M., Ijaz, U.I. and Pinto, A.J. (2016) “Elucidating the long-term impact of disinfection strategies on the drinking water microbiome”. **Microbial Ecology and Water Engineering.** Copenhagen, Denmark, 2016. (poster).
- P61. Calus, S.T., Ijaz, U.Z., and Pinto, A.J. (2016) “Evaluation of multiple DNA aligners for the analysis of full-length 16S rRNA gene sequences from mixed microbial communities using the MinION nanopore-based sequencing technology”. **Microbial Ecology and Water Engineering.** Copenhagen, Denmark, 2016.
- P62. Bradley, I.M., Pinto, A.J. and Guest, J.S. (2016) “Improved characterization of mixed phototrophic communities using 18S rRNA amplicon sequencing”. **Microbial Ecology and Water Engineering.** Copenhagen, Denmark, 2016.
- P63. Bautista, Q.M., Dai, Z., Calus, S., Sevillano-Rivera, M.C., Ijaz, U.I., Sloan, W.T., and Pinto, A.J. (2016) “Impact of source water on the structure and metagenomic profile of drinking water communities”. **Microbial Ecology and Water Engineering.** Copenhagen, Denmark, 2016.
- P64. Fedders, A.C., DeBellis, J.L., Bradley, I.M., Pinto, A.J., and Guest, J.S. (2016). “Leveraging nutrient limitation in mixed microalgal cultures to create a selective environment favoring carbon accumulators”. **International Society of Microbial Ecology -16.** Montreal, Canada, 2016. (poster).
- P65. Calus, S.T, Ijaz, U.Z., and Pinto, A.J. (2016). “Nanopore technology for full length 16S rRNA sequencing of mixed microbial communities”. American Society of Microbiology: Microbe 2016. Boston, Massachusetts, 2016. (poster)
- P66. Sevillano-Rivera, M., Knapp, C.W., Calus, S.T., and Pinto, A.J. (2016). “Does water stress increase the incidence of antibiotic resistance genes in drinking water supplies”. American Society of Microbiology: Microbe 2016. Boston, Massachusetts, 2016. (poster)
- P67. Ugarcina Pervovic, S. Bautista, Q.M., Sevillano, M., Russell, J., and Pinto, A.J. (2015) “Estimating the impact of flow regime and sample volume on changes in bacterial community diversity in a low biomass aquatic environment.” **Biofilms - 7.** Lisboa, Portugal, 2016.
- P68. Ugarcina Pervovic, S. Bautista, Q.M., Sevillano, M., Russell, J., and Pinto, A.J. (2015) “Determining the effect of sample volume and flow rates on investigations of bacterial community diversity in low biomass aquatic environments.” **FEMS Microbiology Congress.** Maastricht, Netherlands, 2015. (poster)
- P69. Bautista, Q.M., Blakemore, O., Schroeder, J., Sloan, W.T., and Pinto, A.J. (2015) “Diurnal variation of bacterial communities in drinking water systems over small spatial scales.” **FEMS Microbiology Congress.** Maastricht, Netherlands, 2015. (poster).
- P70. Calus, S.T., Sevillano-Rivera, M., Ijaz, U. and Pinto, A.J. (2015). “MinION-enabled and customer led drinking water quality monitoring for pathogen detection.” **London Calling – Oxford Nanopore Technology.** London, UK, 2015 (poster).

- P71. Pinto, A.J., Schroeder, J.; Lunn, M., Sloan, W.T., and Raskin, L. (2014) "Predicting bacterial community dynamics in drinking water systems." **International Society of Microbial Ecology -15**, Seoul, South Korea, 2014. (poster)
- P72. Schroeder, J., Lunn, M., Pinto, A.J., Raskin, L., and Sloan, W.T. (2014). "Microbial migrating in conduits." **International Society of Microbial Ecology -15**, Seoul, South Korea, 2014.
- P73. Pinto, A. J., Schroeder, J., Lunn, M., Sloan, W. T., and Raskin, L. (2013) "Bacterial community dynamics in drinking water systems. **Microbial Ecology in Water Engineering**, Ann Arbor, Michigan, USA 2013.
- P74. Pinto, A. J., Schroeder, J., Lunn, M., Sloan, W. T., and Raskin, L. (2012). "Evaluating process-related and seasonal changes in bacterial community in drinking water treatment and distribution systems." **International Symposium on Microbial Ecology -14**, Copenhagen, Denmark, 2012.
- P75. Schroeder, J., Pinto, A. J., Lunn, M., Raskin, L., and Sloan, W. T. (2012). "Theoretical models for bacterial communities in drinking water as they travel and evolve through drinking water distribution systems. **International Symposium on Microbial Ecology - 14**, Copenhagen, Denmark, 2012.
- P76. Clancy, T., Chiao, T.H, Pinto, A. J., Xi, C., and Raskin, L. (2012) Tracking the survival of bacteria exposed to monochloramine disinfection in drinking water treated by a biologically active filter. **International Symposium on Microbial Ecology -14**, Copenhagen, Denmark, 2012. (poster).
- P77. Pinto, A.J., Chiao, T.C., Xi, C., and Raskin, L. (2011) "Seeding Mechanisms for Bacterial and Archaeal Populations in the Drinking Water Distribution System: a Year-Long Microbial and Chemical Inventory." **Leading Edge Technology Conference 2011**. Amsterdam, Netherlands. 2011
- P78. Pinto, A.J., Chiao, T., Xi, C., and Raskin, L. (2010) "The influence of The Influence of Treatment Processes on the Microbial Continuum in a Drinking Water Treatment System." **International Symposium on Microbial Ecology-13**, Seattle, WA, 2010. (poster).
- P79. Pinto, A.J. and Love N.G. (2010). "Impact of Chemical Perturbation on Trophic Interactions and its Implications for Ecosystem Function in an Engineered Environment." **International Symposium on Microbial Ecology-13**, Seattle, WA, 2010. (poster)
- P80. Pinto, A.J. and Love N.G. (2009). "Post-Stress Recovery of a Complex Ammonia Oxidizing Bacterial Community Following Heavy Metal Cadmium stress." **International Conference on Nitrification 1**. Louisville, KY, 2009.
- P81. Pinto, A.J., Hardin, S.C, and Love N.G. (2009) "Cadmium-Induced Short-term Structural and Functional Changes in Ammonia Oxidizing Community in Conventional Laboratory and Pilot Scale Activated Sludge Systems." **ASPD 5: Specialized Conference on Microbial Population Dynamics in Biological Wastewater Treatment**. Aalborg, Denmark, 2009.
- P82. Pinto, A.J., Guest, J.S., Love, N.G., Shaw, A., Fairey, A.W., Iler, P.L., Shellenbarger, D., and Barker, D. (2007). "Process Control at Nutrient Removal Wastewater Treatment Plants During Toxic Shock Events." **International Water Association Specialty Conference Series: Nutrient Removal**. Baltimore, MD, 2007.

Presentations: National Conferences

- P83. Sevillano-Rivera, M.C., Dai, Z., Calus, S.T., Bautista de los Santos, Q.M. and Pinto, A.J. (2018) “Are there differentially abundant antibiotic resistance genes associated with chlorinated drinking water system as compared to non-disinfected systems”. **ASM Microbe 2018**, Atlanta Georgia. (poster)
- P84. Vosloo, S., Pinto, A.J., Venter, F., Crous, M., du Preez, H., Sigudu, H. (2018) “Spatial and temporal variability of bacterial and archaeal communities in rapid sand filters”. **ASM Microbe 2018**, Atlanta Georgia. (poster)
- P85. Dai, Z., Sevillano-Rivera, M.C., Calus, S.T., Bautista de los Santos, Q.M., Ijaz, U. I., and Pinto, A.J. (2018) “Elucidating the long-term impact of disinfected strategies on the drinking water microbiome”. **ASM Microbe 2018**, Atlanta Georgia. (poster)
- P86. Vilardi, K., Cotto, I, and Pinto, A.J. (2018) “Enrichment and isolation of complete ammonia oxidizing bacteria from full-scale wastewater treatment plant”. **ASM Microbe 2018**, Atlanta Georgia. (poster)
- P87. Cotto, I., Vilardi, K.J., Khunjar, W.O., Wilson, C., De Clippelier, H., and Pinto, A.J. (2018) “Detection and quantification of comammox bacteria in nitrogen removal systems from wastewater treatment plants”. **ASM Microbe 2018**, Atlanta Georgia. (poster)
- P88. Calus, S.T., Ijaz, U.I., and Pinto, A.J. “NanoAmpli-Seq: a de novo protocol for amplicon sequencing from mixed microbial communities”. **ASM Microbe 2018**, Atlanta Georgia. (poster)
- P89. Bautista de los Santos, Q.M., Dai, Z., Calus, S., Sevillano-Rivera, M.C., Ijaz, U.Z., Sloan, W.T., and Pinto, A.J. (2017) “A collective analyses of microbial communities in full-scale drinking water distribution system”. **Association of Environmental Engineering and Science Professors 2017**, Ann Arbor, Michigan.
- P90. Sevillano-Rivera, M., Calus, S., Dai, Z., Bautista de los Santos, Q.M. and Pinto, A.J. (2017) “Incidence of antimicrobial resistance genes in municipal drinking water samples from the United Kingdom”. **Association of Environmental Engineering and Science Professors 2017**, Ann Arbor, Michigan. * **Winner of best student presentation award at AEESP 2017.**
- P91. Bradley, I.M., Gardner-Dale, D.A., Pinto, A.J., and Guest, J.S. (2017) “Development of selective pressures to drive algal community structure, nitrogen, and phosphorus recovery, and feedstock production in wastewater treatment”. **Association of Environmental Engineering and Science Professors 2017**, Ann Arbor, Michigan.
- P92. DeBellis, J.L., Fedders, A.C., Bradley, I.M., Pinto, A.J., and Guest, J.S., (2017) “Leveraging nutrient limitation in mixed microalgal cultures to create a selective environment favoring carbon accumulators”. **Association of Environmental Engineering and Science Professors 2017**, Ann Arbor, Michigan. (poster).
- P93. Dai, Z., Sevillano-Rivera, M.C., Calus, S., Bautista de los Santos, Q.M., Ijaz, U.I., and Pinto, A.J. (2017). **UNC Water Microbiology 2017**, Chapel Hill, North Carolina.
- P94. Sisamaet, H.J., Pinto, A.J., and Goluch, E.D. (2017) “Electrochemical measurement of pyocyanin production by clinical *Pseudomonas aeruginosa* isolates”. **PittCon 2017**. Chicago, Illinois.
- P95. Clancy, T., Chiao, T.C, Pinto, A.J., and Raskin, L. (2013) “Assessing the role of backwashing and disinfection on microbial water quality and community dynamics in biofilters.” **AWWA ACE**. Denver, Colorado, 2013.

- P96. Clancy, T., Chiao, T.C., Pinto, A.J., and Raskin, L. (2013) “Differential Disinfection Resistance Of Bacterial Populations In Effluent From Biologically Active Carbon (BAC) Filter.” **Biological Treatment Symposium**. Denver, Colorado, 2013.
- P97. Pinto, A.J., Chiao, T.C., Xi, C., and Raskin L. (2011) “Bacterial Infiltration and Survival in Drinking Water Distribution Systems.” **Association of Environmental Engineering and Science Professors**. Tampa, Florida, 2011.
- P98. Bott, C.B., Jones, R., Thomas, W.A., Pinto, A.J., and Love, N.G. “Model-Based Investigation of Full Scale IFAS Performance Utilizing Plant Data and Batch Testing to Assess Kinetics, Mass Transfer Effects and Population Dynamics.” **WEF/IWA Biofilm Reactor Technology Conference**, Portland, OR, 2010.
- P99. Pinto, A.J. and Love N.G. (2009) “Structural and Functional Response of the Ammonia Oxidizing Bacterial Community to Acute Cadmium Stress in Laboratory and Pilot Scale Activated Sludge Systems.” **Association of Environmental Engineering and Science Professors**. Iowa City, IA, 2009. (poster).
- P100. Pinto, A.J., Guest, J.S., Roots, R., Love, N.G., and Skerlos, S. (2009) “A Project-Based Active Learning Framework to Introduce Freshman Engineering Students to Sustainable Waste Management and Waste-to-Energy Technologies.” **Association of Environmental Engineering and Science Professors**. Iowa City, IA, 2009.

Supervision of Post-Doctoral Associates and Graduate Student

PhD students (current):

Maria .C. Sevillano-Rivera (2014-current)

Szymon T Calus (2014-current)

Zihan Dai (2015-current)

Irmarié Cotto (2016-current)

Katherine Vilardi (2017-current)

Solize Vooslo (2017-current)

Sarah MacRae (2014-current) co-advised with Fanus Venter (Univ of Pretoria)

Sadia Khan (2018-current) co-advised with R. Edward Beighley (Northeastern University)

Guangyu Li (2016-current) co-advised with Jennifer Dy (Northeastern University), April Gu (Cornell University)

MS students (current):

Xuyang Li (2018-current)

Lixuan Huo (2018-current)

Post-doctoral research associates:

Dr. Varun Srinivasan (2018-current) co-advised with April Gu

PhD students (graduated):

Q Melina Bautista-de los Santos (2013-2017). Current: Postdoctoral research associate, University of Michigan Ann Arbor.

Post-doctoral researchers (past)

Dr. R. Sunghthong (2014-2016). Current: Postdoctoral research associate, University of Glasgow.

Dr. J. Schroeder (2013-2015). Current: Counsellor, Cornwall Counselling Hub, UK.

FUNDING

As Principal Investigator (total: \$2.26 million)

1. ECOHAB 2017: Towards a predictive understanding of our ecosystems: Microcystis blooms and toxin production. **National Oceanographic and Atmospheric Administration**. 2018-2021, \$609,068.
2. CAREER: Developing a Spatial-Temporal Predictive Framework for the Drinking Water Microbiome. **National Science Foundation**, 2018-2023, \$504,091.
3. Deciphering the role of comammox bacteria in nitrogen removal systems. **National Science Foundation**, 2017-2020, \$330,005.
4. Estimating the comammox contribution to ammonia oxidation in nitrogen removal systems. **Water Environment & Reuse Foundation**, 2017-2019, \$122,764.
5. Bright IDEAS Award: Healthy Drinking Water, **Engineering and Physical Sciences Research Council**, 2015-2017, £312,490 (\$445,591).
6. Sponsorship Award. Cell-by-Cell: On demand assembly and control of microbial communities for the water industry. **Engineering and Physical Sciences Research Council**, 2014-2015, £25,000 (\$35,648). (£14,000 to Ameet Pinto). Co-PI: James Windmill, Yeaw Chu Lee.
7. Research Networks: Mitigating Microbial Contamination Risks in Drinking Water Systems. **British Council**, 2014-2015, £3,640 (\$5,189).
8. Travel: Drinking Water Microbial Management. **Scottish Funding Council**, 2013-2014, £4,409 (\$6,286).
9. EPSRC First Grant Scheme: Developing an Event Prediction and Correction Framework for Microbial Management of Drinking Water Systems. **Engineering and Physical Sciences Research Council**, 2015-2017, £115,899 (\$165,243).
10. Royal Society Start Grant: A Phage-based Paper Device for Rapid Detection of Pathogen Contamination in Drinking Water. **The Royal Society**, 2013-2014, £25,000 (\$35,643).

As Co-Principal Investigator (total: \$305k)

1. Combining Nitrite-Shunt/Anammox Processes with Side-stream EBPR Process For Simultaneous and Sustainable Nitrogen and Phosphorus Removal. **The Water Research Foundation**. 2018-2021. PI – April Gu, Co-PI's – Ameet J. Pinto, Annalisa Onnis-Hayden. \$136,099.
2. RAPID: Timely assessment of water quality to reveal the potential ecological and health impact of Hurricanes at Puerto Rico. **National Science Foundation**. 2017-2018. PI – April Gu, Co-PI's – Ameet J. Pinto, Akram Alshawabkeh. \$98,515.
3. Sustainable and resilient water solutions for small communities in Scotland. **Engineering and Physical Sciences Research Council**. PI- William Sloan, Co-PI – Ameet J. Pinto. 2013-2014, £50,000 (\$71,287).

SERVICE

Exam, Thesis, or Dissertation Committee Service

Chia-Chen Wu (Nancy Love, University of Michigan), Jolene El-Chaktoura (Hans Vrouwenwelder, Technical University of Delft). Ian Bradley (Jeremy Guest, Univ of Illinois), Nadine Kotlarz (Lut Raskin, Univ of Michigan). Solize Voolso (Fanus Venter, Univ of Pretoria), Sarah McRae (Fanus Venter, Univ of Pretoria), Sahar Shirani (Ferdi Hellweger Northeastern

University), Katarina Luhrig (Peter Radstrom, Lund University), Emmanuelle Prest (Mark van Loosdrecht, Delft University of Technology), Sam van Nevel (Nico Boon, Ghent University).

External Committee Duties

- 2017-current **Secretary**, International Water Association (IWA) Specialty Group: Microbial Ecology and Water Engineering
- 2017 **Delegate**, International Water Association (IWA), Specialty Group Leaders Forum, Buenos Aires, Argentina. Nov 13-17, 2017.
- 2013-present **Member**, International Water Association (IWA) Specialty Group: Microbial Ecology and Water Engineering.
- 2013 **Delegate**, International Water Association (IWA), Specialty Group Leaders Meeting, Valencia, Spain. Nov 7-8, 2013.

University Committee Duties

- 2017-current Graduate Studies Committee, Civil and Environmental Engineering, Northeastern University.
- 2017- current Graduate Advisor, M.S. program in Environmental Engineering, Civil and Environmental Engineering, Northeastern University.

Conference and Session Organization

- 2019 **Scientific committee**, Microbial Ecology and Water Engineering 2019 Conference, November 11-14, 2019, Hiroshima, Japan.
- 2018 **Workshop co-organizer**, IWA World Water Congress and Exhibition, September 16-21, 2018. Tokyo, Japan.
- 2018 **Workshop co-organizer**, Water Institute of South Africa, June 21-26, Cape Town, South Africa.
- 2016 **Scientific committee**, Microbial Ecology and Water Engineering 2016 Conference, September 4-7, 2016.
- 2016 **Session Co-convener**, American Society of Microbiology – Microbe 2016. June 18, 2016.
- 2016 **Lead organizer**, Scottish Water - Drinking water microbiology workshop, Glasgow, United Kingdom, March 10, 2016.
- 2015 **Session Chair**, Wetsus Annual Congress, Leeuwarden, Netherlands, September 29, 2015
- 2015 **Workshop co-organizer**, Microbi-Home workshop. IWA Biofilm Specialty Conference, Arosa, Switzerland, Aug 23 - 2016.
- 2012 **Session co-convener**, International Society of Microbial Ecology – 12, Copenhagen, Denmark. Aug 24, 2012.

Service as Editor and Reviewer to the Following Journals or Organizations

Associate Editor
Water Research

Peer-Reviewed Journals

Applied and Environmental Microbiology
Biotechnology and Bioengineering
Current Opinion in Biotechnology
Environmental Engineering Science
Environmental Microbiology
Environmental Science: Water Research and Technology
Environmental Science and Pollution Research
Environmental Science and Technology
FEMS Microbiology Ecology
ISME Journal
PLoS One
Reviews in Environmental Science and Technology
Scientific Reports
Water Research
Water Science and Technology

Organizations

National Science Foundation.
Engineering and Physical Sciences Research Council, UK
Biotechnology and Biological Sciences Research Council, UK
Natural Environment Research Council, UK
The Royal Society, UK
British Council, UK
Flemish Water Organization, Belgium.