

CURRICULUM VITAE

MORTEZA ABBASZADEGAN, Ph.D., BCES
Professor & Director National Science Foundation Water & Environmental Technology Center
Arizona State University
School of Sustainable Engineering & the Built Environment
Civil, Environmental & Sustainable Engineering
Tempe, AZ 85287-3005; Tel: 480-965-3868; E-mail: abbaszadegan@asu.edu

EDUCATION

University of Arizona, Tucson, AZ
Ph.D. Program in Nutritional Sciences/Microbiology and Immunology
Dissertation: Detection of *Giardia* Cysts by a cDNA Probe and Application to Water Samples

Northern Arizona University, Flagstaff, AZ
Master of Science in Applied Microbiology
Thesis: Commensal Relationship between Group a Streptococci and *Neisseria subflava* and Riboflavin Production by *Neisseria subflava*

University of Montana, Missoula, MT
Department of Microbiology
Bachelor of Science in Microbiology

PROFESSIONAL EXPERIENCE

Professor (Aug 2006–Present)
Associate professor (Aug 1999–Aug 2006)
School of Sustainable Engineering & the Built Environment
Civil, Environmental & Sustainable Engineering
Arizona State University, Tempe, AZ (Aug 1999–Present)

Director National Science Foundation Water & Environmental Technology Center at Arizona State University (I/UCRCs 2009–Present)
Director National Science Foundation Water Quality Center at Arizona State University (2000–2009)

Microbiology Research Manager (Jan 1997–Aug 1999)
Senior Research Microbiologist (1995–1996)
Research Microbiologist (1993–1995)
American Water Works Service Company, Inc., Belleville, IL (Jan 1993–Aug 1999)

Research Assistant Professor (Dec 1991–Jan 1993)
Research Associate (May 1991–Dec 1991)
Department of Soil & Water Science
University of Arizona, Tucson, AZ (May 1991–Jan 1993)

Service Activities and Honors

Editor: Journal of Water and Health, International Water Association (IWA) Publishing (Oct 2010–Present)

Board Certified Environmental Scientist (BCES) by Eminence in the specialty of Environmental Microbiology. American Academy of Environmental Engineers and Scientists (2014–Present)

Nathan Burbank Environmental Educator of the Year Award 2017. AZ Water Association

Excellence in Teaching Award 2014. School of Sustainable Engineering and the Built Environment, Arizona State University

Chair, Section 9510, Detection of Enteric Viruses for Standard Methods (2004–Present)

Co-chair, microbiology workgroup, The American Academy of Environmental Engineers and Scientists (AAEES) (2012–Present)

International Editorial Board Member, Journal of Water & Health, IWA publishing (2003–Oct 2012)

Microbiological Contaminants Research Committee, Chair (1999–June 2003)
Research Division, American Water Works Association

Served on many review committees for journals and international conferences

Invited by Centers for Disease Control for Development of Methods for Testing Water for Bio-Terrorism Agents.

Section Editor, viruses, for Waterborne Pathogens Manual, published 1999 by American Water Works Association.

Invited by the Environmental Protection Agency to serve on technical review committee for Information Collection Rule (ICR) "Protozoa, Virus, and Coliphage Monitoring Workshop" for the office of Science & Technology, U.S. Environmental Protection Agency, Cincinnati, OH, August 1993; Cocoa Beach, FL, January 1994; Cincinnati, OH, June 2, 1994.

Serving on the Project Advisory Committee (PAC) for the AWWA Research Foundation Project Entitled "Effect of Various Disinfection Methods on the Inactivation of *Cryptosporidium*".

Serving on the American Society for Testing and Materials (D-19) Virus Task Group.

Served as an Advisory Board Member to Perkin-Elmer and Roche Molecular System on pathogen detection in water samples, March 15, 1993.

Offered three *Cryptosporidium* Training Workshop at American Water Works Service Company, Inc. Research laboratory, Belleville, IL. May 27-28, 1993; August 16-17, 1993 and November 17-18, 1994.

Instructor of the workshops on Water Microbiology for The 21st Century, Macquarie University, Sydney, Australia, September 21-22 1993 and University of Washington, Seattle, WA, March 23-24, 1994.

Instructor of the workshop on Environmental Biotechnology of enteric viruses, parasites and Bacteria in water, Maracaibo, Venezuela, 1992.

Instructor of the workshop on Environmental Biotechnology of enteric viruses, parasites and Bacteria in water, Universidad Autonoma de Sinaloa, Culiacan, Mexico, February 19-22, 1990.

1991 outstanding research team award, College of Agriculture, University of Arizona.

Gamma Sigma Delta, The Honor Society of Agriculture, College of Agriculture, University of Arizona, 1990.

PATENT & PATENT APPLICATION

Methods and Kits for Detection of *Cryptosporidium parvum* using Immunomagnetic Separation and Amplification Patent No. 6,153,411; Date of Issue: Nov 28, 2000

Biosensor for Characterization of Microorganisms, filed September 2006, published September 2007

PUBLICATIONS

Refereed Archival Journal Publications

McBurnett, L.R., N.T. Holt, A. Alum, and M. Abbaszadegan. 2018. *Legionella* - A Threat to Groundwater: Pathogen Transport in Recharge Basin. *Science of the Total Environment*. 621:1485-1490.

Bone, S., A. Alum, J. Markovski, K. Hristovski, E. Bar-Zeev, Y. Kaufman, M. Abbaszadegan, and F. Perreault. 2018. Physisorption and chemisorption of T4 bacteriophages on amino functionalized silica particles. *Journal of Colloid and Interface Science*. 532: 68-76.

Bi, Y., E. Westerband, A. Alum, F.C. Brown, M. Abbaszadegan, K.D. Hristovski, A.L. Hicks, P.K. Westerhoff. 2018. Antimicrobial Efficacy and Life Cycle Impact of Silver-Containing Food Containers. Accepted.

Alghamdi, H., A. Dakhane, A. Alum, M. Abbaszadegan, B. Mobasher, N. Neithalath. 2018. Synthesis and characterization of economical, multi-functional porous ceramics based on abundant aluminosilicates. *Materials and Design*. 152 (2018) 10–21

Alum, A., A. Alboloushi, and M. Abbaszadegan. 2018. Copper nanoparticles toxicity: Laboratory strains verses environmental bacterial isolates. *J. Environmental Science and Health: Part A – Toxic/Hazardous Substances & Environmental Engineering*. Part A. 1–8. DOI: 10.1080/10934529.2018.1429727

Hesari, N., N. Kirath Yilmazçoban, M. Elzein, A. Alum, and M. Abbaszadegan. 2017. A strategy to establish quality assurance/quality control plan for the application of biosensor for the detection of *E. coli* in water. *Biosensor*. 7, 3; doi:10.3390/bios7010003.

- Hosseini, R.S., M.R. Edalatian Dovom, M. Yavarmanesh, M. Abbaszadegan.** 2017. Thermal inactivation of MS2 bacteriophage as a surrogate of enteric viruses in cow milk. *Journal of Consumer Protection and Food Safety*. 12:341–347.
- Pezeshki, P., M. Yavarmanesh, M.B. Habibi Najafi, M. Abbaszadegan, and M. Mohebbi.** 2017. Effect of meat aging on survival of MS2 bacteriophage as a surrogate of enteric viruses on lamb meat. *Journal of Food Safety*. doi 10.1111/jfs.12336.
- Kabiri, L., A. Alum, C. Rock, J.E. McLain, and M. Abbaszadegan.** 2016. A tool box strategy using *Bacteroides* genetic markers to differentiate human from non-human sources of fecal contamination in natural water. *Science of the Total Environment*. 572:897-905.
- Hesari, N., A. Alum, M. Elzein and M. Abbaszadegan.** 2016. A biosensor platform for rapid detection of *E. coli* in drinking water. *Enzyme and Microbial Technology*. 83:22-28.
- Abbaszadegan M. and A. Alum.** 2016. Waterborne enteric viruses: diversity, distribution and detection. In Yates MV, Nakatsu C, Miller R, Pillai S (ed), Manual of Environmental Microbiology, 4th ed. ASM Press, Washington, DC.
- Alum A., E.N. Villegas, S.P. Keely, K.R. Bright, L.Y. Sifuentes and M. Abbaszadegan.** 2016. Detection of Protozoa in Surface and Finished Waters. In Yates MV, Nakatsu C, Miller R, Pillai S (ed), Manual of Environmental Microbiology, 4th ed. ASM Press, Washington, DC.
- Mayer, B.K., Y. Yang, D.W. Gerrity and M. Abbaszadegan.** 2015. The impact of capsid proteins on virus removal and inactivation during water treatment processes. *Microbiology Insights*. 8 (Suppl 2):15-28.
- Schwake, D.O., A. Alum and M. Abbaszadegan.** 2015. Impact of Environmental Factors on *Legionella* Populations in Drinking Water. *Pathogens*. 4:269-282.
- Schwake, D.O., A. Alum and M. Abbaszadegan.** 2015. Automobile Windshield Washer Fluid: A Potential Source of Transmission for *Legionella*. *Science of the Total Environment*. 526 (2015) 271-277.
- Yavarmanesh, M., A. Alum and M. Abbaszadegan.** 2015. Occurrence of noroviruses and their correlation with microbial indicators in raw milk. *Food and Environmental Virology*. 7:232-238.
- Abbaszadegan, M., M. Yi and A. Alum.** 2015. Stimulation of 2-methylisoborneol (MIB) production by actinomycetes after cyclic chlorination in drinking water Distribution systems. *J. Environmental Science and Health: Part A – Toxic/Hazardous Substances & Environmental Engineering*. Part A (2015) 50, 365-371.
- Mayer, B.K., E. Daugherty and M. Abbaszadegan.** 2014. Evaluation of the relationship between bulk organic precursors and disinfection byproduct formation for advanced oxidation processes. *Chemosphere*. 121: 39-46.
- Mayer, B.K., E. Daugherty and M. Abbaszadegan.** 2014. Disinfection byproduct formation resulting from settled, filtered, and finished water treated by titanium dioxide photocatalysis. *Chemosphere*. 117: 72-78.
- Alum, A., C. Rock, and M. Abbaszadegan.** 2014. A unified method to process biosolids samples for the recovery of bacterial, viral, and helminths pathogens. *J. Environmental Science and Health: Part A – Toxic/Hazardous Substances & Environmental Engineering*. Part A: 49: 679-684.
- Kabiri, L., A. Alum, C. Rock, J.E. McLain, and M. Abbaszadegan.** 2013. Isolation of *Bacteroides* from fish and human fecal samples for identification of unique molecular markers. *Canadian Journal of Microbiology*. 59: 771–777.
- Elzein, M., A. Alum, and M. Abbaszadegan.** 2013. Biochemical signature assay for use in a biosensor platform to detect bacteria in drinking water biofilms. *J. Environmental Science and Health: Part A – Toxic/Hazardous Substances & Environmental Engineering*. Part A: 48:8, 925-932.
- Yavarmanesh, M., M. Abbaszadegan, A. Alum, A. Mortazavi, M.B. Habibi Najafi, M.R. Bassami and M.R. Nassiri.** 2013. Impact of milk components on recovery of viral RNA from MS2 bacteriophage. *Food and Environmental Virology*. 5:103–109.
- Biyela, P. T., H. Ryu, A. Brown, A. Alum, M. Abbaszadegan, and B. E. Rittmann.** 2012. Distribution systems as reservoirs of *Naegleria fowleri* and other amoebae. *J. Amer. Water Works Assn.* 104(1):49-50.
- Abbaszadegan, M., A. Alum, H. Abbaszadegan, and V. Stout.** 2011. Cell Surface Display of Poliovirus Receptor on *E. coli*: A Novel Method for Concentrating Viral Particles in Water. *Applied and Environmental Microbiology*. 77:5141-5148.

- Bosch, A., G. Sánchez, M. Abbaszadegan, A. Carducci, S. Guix, F.S. Le Guyader, R. Netshikweta, R.M. Pintó, W. H.M. van der Poel, S. Rutjes, D. Sano, M.B. Taylor, W.B. van Zyl, D. Rodríguez-Lázaro, K. Kovač and J. Sellwood.** 2011. Analytical methods for virus detection in water and food. *Food Anal. Methods*. 4(1):4-13.
- Rock, C., A. Alum, and M. Abbaszadegan.** 2010. PCR Inhibitor levels in concentrates of biosolids samples predicted by a new method based on excitation emission matrix (EEM) spectroscopy. *Applied and Environmental Microbiology*. 76 (24):8102-8109.
- Mohammadesmaeili, F., M. Kabiri-Badr, M. Abbaszadegan and P. Fox.** 2010. Mineral Recovery from inland reverse osmosis concentrate using isothermal evaporation. *Water Research*. 44:6021-6030.
- Yavarmanesh, M., M. Abbaszadegan, A. Mortazavi, M.B. Habibi Najafi, M.R. Bassami, and M.R. Nassiri.** 2010. Impact of milk components in recovery of the MS2 bacteriophage as an indicator of enteric viruses. *Journal of Virological Methods*. 168:103-107.
- Mohammadesmaeili, F., M. Kabiri-Badr, M. Abbaszadegan and P. Fox.** 2010. By-Product Recovery from Reclaimed Water RO Concentrate using Lime and Soda-Ash Treatment. *Journal of Water Environment Research*. 82 (4):342-350.
- Ryu, H., B. Mayer and M. Abbaszadegan.** 2010. Applicability of quantitative PCR for determination of removal efficacy of enteric viruses and *Cryptosporidium* by water treatment processes. *Water & Health*. 101-108.
- Mayer, B., H. Ryu, D. Gerrity, and M. Abbaszadegan.** 2010. Development and validation of an integrated cell culture-qRT-PCR assay for simultaneous quantification of coxsackieviruses, echoviruses, and polioviruses in disinfection studies. *Water Science & Technology*. 61:2:375-387.
- McLain, J.E, H. Ryu, L. Kabiri-Badr, C.M. Rock and M. Abbaszadegan.** 2009. Lack of specificity for PCR assays targeting human *Bacteroides* 16S rRNA gene: cross-amplification with fish feces. *FEMS Microbiol Lett*. 299:38-43.
- Gerrity, D., B. Mayer, H. Ryu, J. Crittenden, and M. Abbaszadegan.** 2009. A comparison of pilot-scale photocatalysis and enhanced coagulation for disinfection byproduct mitigation. *Water Research*. 43:1597-1610.
- Rahman, R., A. Alum, H. Ryu, M. Abbaszadegan.** 2009. Identification of microbial fecal sources in the New River in the United States-Mexican border region. *Water & Health*. 7.2:267-275.
- Alum, A., B. Mobasher, A. Rashid and M. Abbaszadegan.** 2009. Image Analyses Based Non-Disruptive Method to Quantify Algal Growth on Concrete Surfaces. *Environmental Engineering*. 135(3):185-190.
- Gupta, V., W. Johnson, P. Shefian, H. Ryu, A. Alum, M. Abbaszadegan, S. Hubbs, T. Rauch-Williams.** 2009. Riverbank Filtration: Comparison of Pilot Scale Transport Theory. *Environmental Science & Technology*. 43:669-676.
- Mayer, B., H. Ryu, and M. Abbaszadegan.** 2008. Treatability of U.S. EPA Contaminant Candidate List viruses: removal of coxsackievirus and echovirus using enhanced coagulation. *Environmental Science & Technology*. 42:18:6890-6896.
- Alum, A., A. Rashid, B. Mobasher, and M. Abbaszadegan.** 2008. Cement-based biocide coatings for controlling algal growth in water distribution canals. *Cement & Concrete Composites*. 30: 839–847.
- Ryu H., D. Gerrity, J.C. Crittenden, and M. Abbaszadegan.** 2008. Photocatalytic inactivation of *Cryptosporidium parvum* with TiO₂ and low-pressure ultraviolet irradiation. *Water Research*. 42:1523-1530.
- Abbaszadegan, M., P. Monteiro, N. Nwachuku, A. Alum and H. Ryu.** 2008. Removal of adenovirus, calicivirus, and bacteriophages by conventional drinking water treatment. *J. Environ. Sci. Health: A*43:171-177.
- Gerrity, D., H. Ryu, J. Crittenden, and M. Abbaszadegan.** 2008. UV Inactivation of Adenovirus Type 4 Measured by Integrated Cell Culture qPCR, *J. Environmental Science and Health: Part A – Toxic/Hazardous Substances & Environmental Engineering*. 43:14:1628-1638.
- Ryu, H. and M. Abbaszadegan.** 2008. Long-term study of *Cryptosporidium* and Giardia occurrence and quantitative microbial risk assessment in surface waters of Arizona in the USA. *Water & Health*. 06.2:263-273.
- Gerrity, D., H. Ryu, J. Crittenden and M. Abbaszadegan.** 2008. Photocatalytic inactivation of viruses using titanium dioxide nanoparticles and low-pressure UV light, *J. Environmental Science and Health: Part A – Toxic/Hazardous Substances & Environmental Engineering*. 43:11:1261-1270.

- Abbaszadegan, M., B. Mayer, H. Ryu, and N. Nwachuku.** 2007. Efficacy of Removal of CCL Viruses under Enhanced Coagulation Conditions. *Environmental Science & Technology*. 41:971-977.
- Ryu, H. and M. Abbaszadegan.** 2007. A guide for optimizing sample volume for the detection of *Cryptosporidium* oocysts by USEPA method 1622. *J. Am Water Works Assoc.* 99:107-109.
- Straub, T.M., K.H. zu Bentrup, P. Orosz Coghlan, A. Dohnalkova, B.K. Mayer, R.A. Bartholomew, C.O. Valdez, C.J. Bruckner-Lea, C.P. Gerba, M. Abbaszadegan, C.A. Nickerson.** 2007. First Report of *In-Vitro* Infection of a 3-Dimensional Organoid Model of Human Small Intestinal Epithelium with Human Noroviruses. *Emerging Infectious Diseases*. 13:396-403.
- Straub, T.M.; Höner zu Bentrop, K.; Orosz-Coghlan, P.; Dohnalkova, A.; Mayer, B.K.; Bartholomew, R.A.; Valdez, C.O.; Bruckner-Lea, C.J.; Gerba, C.P.; Abbaszadegan, M.; Nickerson, C.A.** 2007. Cell culture infectivity assay for noroviruses. *Letter Emerging Infectious Diseases*. 13:7,1117-1118.
- Ryu, H., A. Alum, K. Mena, and M. Abbaszadegan.** 2007. Assessment of the Risk of Infection by *Cryptosporidium* and *Giardia* in Non-potable Reclaimed Water. *Water Science & Technology*. 55:283-290.
- Abbaszadegan, A., P. Monteiro, R. Ouwens, H. Ryu, and A. Alum.** 2006. Removal and inactivation of *Cryptosporidium* and microbial indicators by a Quaternary Ammonium Chloride (QAC)-Treated Zeolite in Pilot Filters. *J. Enviro. Sci. Health: A41*:1201-1210.
- Chung, J., H. Ryu, M. Abbaszadegan and B. Rittmann.** 2006. Community Structure and Function in a Hydrogen-Based Membrane Biofilm Reactor Capable of Bio-reduction of Selenate and Chromate. *Applied Microbiol. Biotech.* DOI: 10.1007/s00253-006-0439-x.
- Ryu, H., A. Alum, and M. Abbaszadegan.** 2005. Microbial Characterization and population changes in non-potable reclaimed water distribution systems. *Environmental Science & Technology*. 39:8600-8605.
- Ryu, H., A. Alum, M. Alvarez, J. Mendoza, and M. Abbaszadegan.** 2005. An assessment of water quality and microbial risk in Rio Grande basin in the United States-Mexican border region. *Water & Health*. 3.2:209-218.
- Alum, A., Y. Yoon, P. Westerhoff, and M. Abbaszadegan.** 2004. Oxidation of bisphenol A, 17 β -estradiol, 17 α -ethynyl estradiol and byproducts estrogenicity. *Enviro. Toxicol.* 19:257-264.
- Abbaszadegan, M., M. LeChevallier, and C. Gerba.** 2003. Occurrence of viruses in US ground waters. *J. Am Water Works Assoc.* 95:107-120.
- Abbaszadegan, M.R., M. Gholamin, A. Tabatabaee, R. Farid, M. Houshmand, and M. Abbaszadegan.** 2003. Prevalence of human T-lymphotropic virus type 1 among blood donors from Mashhad, Iran. *J. Clinical Microbiol.* 41:2593-2595.
- Gerba, C.P., K.R. Riely, N. Nwachuku, H. Ryu, and M. Abbaszadegan.** 2003. Removal of *Encephalitozoon intestinalis*, calicivirus, and coliphages by conventional drinking water treatment. *J. Enviro. Sci. Health*. A38:1259-1268.
- Kevin P. Drees K.P., M. Abbaszadegan, and R.M. Maier.** 2003. Comparative electrochemical inactivation of bacteria and bacteriophage. *Water Research*. 37:2291-2300.
- Abbaszadegan, M., P. Ghatpande, J. Brereton, A. Alum, and R. Narasimhan.** 2003. Laboratory testing protocol to identify critical factors in bacterial compliance. *Water Sci. Tech.* 47:131-136.
- Karim, M., M. Abbaszadegan, and M. LeChevallier.** 2003. Potential for pathogen intrusion during pressure transients. *J. Am Water Works Assoc.* 95:134-146.
- Reynolds, K.A., C.P. Gerba, M. Abbaszadegan, and I.L. Pepper.** 2001. ICC/PCR detection of enteroviruses and hepatitis A virus in environmental samples. *Can. J. Microbiol.* 47:153-157.
- Abbaszadegan, M.** 2001. Advanced detection of viruses and protozoan parasites in water. *Reviews in Biology and Biotechnology*. 1:21-26.
- Bell-Ajy, K., M. Abbaszadegan, E. Ibrahim, D. Verges, and M. LeChevallier.** 2000. Conventional and optimized coagulation for NOM removal. *J. Am Water Works Assoc.* 92:44-58.
- LeChevallier, M., M. Abbaszadegan, G. Di Giovanni.** 2000. Detection of infectious *Cryptosporidium parvum* oocysts in environmental water samples using integrated cell culture-PCR (CC-PCR) system. *Water, Air, and Soil Pollution*. 123:53-65.

- Abbaszadegan, M., P. Stewart, and M. LeChevallier.** 1999. A strategy for the detection of viruses in water by PCR. *Appl. Environ. Microbiol.* 65:444-449.
- Di Giovanni, G., F. Hashemi, N. Shaw, F.A. Abrams, M. W. LeChevallier, and M. Abbaszadegan.** 1999. Detection of infectious *Cryptosporidium parvum* in surface and filter backwash water samples using immunomagnetic separation (IMS) and integrated cell culture-PCR (CC-PCR). *Appl. Environ. Microbiol.* 65:3427-3432.
- LeChevallier, M., M. Abbaszadegan, A. Camper, C. Hurst, G. Izaquirre, et.al.** 1999. Emerging Pathogens-Viruses, Protozoa, and Algal Toxins, Committee Report. *J. Am Water Works Assoc.* 91:101-109.
- LeChevallier, M., M. Abbaszadegan, A. Camper, C. Hurst, G. Izaquirre, et.al.** 1999. Emerging Pathogens-Bacteria, Committee Report. *J. Am Water Works Assoc.* 91:101-09.
- Abbaszadegan, M., M.S. Huber, C.P. Gerba, and I.L. Pepper.** 1997. Detection of viable *Giardia* cysts by amplification of heat shock induced mRNA. *Appl. Environ. Microbiol.* 63:324-328.
- Abbaszadegan, M., M. Hasan, C.P. Gerba, P.F. Roessler, B. Wilson, R. Kuennen, and E. VanDellen.** 1997. The disinfection efficacy of a point-of-use water treatment system against bacterial, viral and protozoan waterborne pathogens. *Water Research.* 31:574-582.
- Abbaszadegan, M., W.P. Applegren, and M. Pessaraki.** 1997. Commensal relationship between group A Streptococci and *Neisseria subflava*. *J. of Enviro. Sci. Health.* A32:259-276.
- LeChevallier, M., W. Norton, J. Siegel, and M. Abbaszadegan.** 1995. Evaluation of the immunofluorescence procedure for detection of *Giardia* and *Cryptosporidium* in water. *Appl. Environ. Microbiol.* 61:690-797.
- Straub, T.M., I.L. Pepper, M. Abbaszadegan, and C.P. Gerba.** 1994. A method to detect enteroviruses in sewage sludge-amended soil using the PCR. *Appl. Environ. Microbiol.* 60:1014-1017.
- Abbaszadegan, M., M.S. Huber, C.P. Gerba, and I.L. Pepper.** 1993. Detection of enteroviruses in groundwater using PCR. *Appl. Environ. Microbiol.* 59:1318-1324.
- Way, J.S., K.S. Josephson, S.D. Pillai, M. Abbaszadegan, C.P. Gerba, and I.L. Pepper.** 1993. Specific detection of *Salmonella* spp. by multiplex polymerase chain reaction. *Appl. Environ. Microbiol.* 59:1473-1479.
- Abbaszadegan, M., C.P. Gerba, M.T. Yahya, and P. Rusian.** 1993. Evaluation of a microbiological water purifier for inactivation of viruses, bacteria and *Giardia* cysts. *Water Sci. Tech.* 27:329-333.
- Enriquez, C.E., M. Abbaszadegan, I.L. Pepper, K.J. Richardson, A.B. Margolin, and C.P. Gerba.** 1993. Comparison of poliovirus detection in water by cell culture and nucleic acid hybridization. *Water Sci. Tech.* 27:315-319.
- Enriquez, C.E., M. Abbaszadegan, I.L. Pepper, K.J. Richardson, and C.P. Gerba.** 1993. Poliovirus detection in water by cell culture and nucleic acid hybridization. *Water Research.* 27:1113-1118.
- Abbaszadegan, M., C.P. Gerba, and J.B. Rose.** 1991. Detection of *Giardia* cysts with a cDNA probe and applications to water samples. *Appl. Environ. Microbiol.* 57:927-931.
- Darban, H., J. Enriquez, C.R. Sterling, M.C. Lopez, G. Chen, M. Abbaszadegan, and R.R. Watson.** 1991. Cryptosporidiosis facilitated by murine retroviral infection with LP-BM5. *J. Infect. Dis.* 164:745-750.

Book Publishing (Book Chapters)

- Abbaszadegan, M. and A. Margolin.** 2007. Control of Microorganisms in Source and Drinking Water. *In* Manual of Environmental Microbiology. 2nd ed. American Society for Microbiology Press. Washington DC.
- Abbaszadegan, M.** 2006. Rotaviruses. *In* Waterborne Pathogens, Manual of Water Supply Practices. 2nd ed. American Water Works Association. Denver, CO.
- Abbaszadegan, M. and A. Alum.** 2004. Microbiological contaminants and threats of concerns, p. 2.1-2.13. *In* L. Mays (ed.), Water supply systems security. McGraw-Hill, New York, N.Y.
- Abbaszadegan, M.** 2002. Viruses in drinking water and ground water, p. 3288-3300. *In* G. Bitton (ed.), Encyclopedia of environmental microbiology. John Wiley & Sons, New York, N.Y.
- LeChevallier, M., M. Abbaszadegan, and G. Di Giovanni.** 2000. Detection of infectious *Cryptosporidium parvum* oocysts in environmental water samples using an integrated cell culture-PCR. (CC-PCR) system. p. 53-65.

In S. Belkin (ed.), Environmental challenges, Kluwer Academic Publishers, Dordrech, The Netherlands.

Abbaszadegan, M. 1999. Rotaviruses. *In Waterborne Pathogens, Manual of Water Supply Practices.* American Water Works Association. Denver, CO.

Abbaszadegan, M. and S. Dowed. 1998. Detection of enteroviruses and bacteriophage from water using cultural methods. *In S. Pillai (ed.), Microbial pathogens within aquifers.* Medical Publishers. Georgetown, TX.

Abbaszadegan, M. 1998. Detection of protozoan parasites from water samples. *In S. Pillai (ed.), Microbial pathogens within aquifers.* Medical Publishers. Georgetown, TX.

Abbaszadegan, M. and Ricardo DeLeon. 1996. Detection of viruses in water samples by nucleic acid amplification. *In G. Toranzos (ed.) Environmental applications of nucleic acid amplification techniques.* Technomic Publishing Co., Inc., Lancaster, PA.

Abbaszadegan, M. 1996. Detection of *Giardia* cysts and *Cryptosporidium* oocysts in water samples by PCR. *In G. Toranzos (ed.) Environmental applications of nucleic acid amplification techniques.* Technomic Publishing Co., Inc., Lancaster, PA.

Other Publications

Abbaszadegan, M., T. Rauch-Williams, W.P. Johnson, S. Hubbs. 2011. Methods to access GWUDI and Bank Filtration Performance. Water Research Foundation. Denver, CO.

Abbaszadegan, M., A. Alum, C. Rock. 2008. Biosolids Samples processing for Analyses of Pathogens. Water Environment Research Foundation. IWA Publishing. ISSN Online: 1476-1777

Gottler, R., J. Calles, P. Westerhoff, M. Abbaszadegan. 2007. Addressing Concerns About Tastes and Odors and Cyanotoxins in Tap Water. American Water Works Association Research Foundation. Denver, CO.

Narasimhan, R., J. Brereton, M. Abbaszadegan, H. Ryu, P. Butterfield, K. Thompson, and H. Werth. 2005. Characterizing Microbial Water Quality in Reclaimed Water Distribution Systems. American Water Works Association Research Foundation. Denver, CO.

Narasimhan, R., J. Brereton, M. Abbaszadegan, A. Alum, and P. Ghatpande. 2004. Sample Collection Procedures and Location for Bacterial Compliance Monitoring. American Water Works Association Research Foundation. Denver, CO.

Kirmeyer, G., M. Friedman, K. Martel, D. Howie, M. LeChevallier, M. Abbaszadegan, M. Karim, J. Funk. 2001. Pathogen Intrusion into the Distribution System. American Water Works Association Research Foundation. Denver, CO.

Nwachuku, N., C. Gerba, K. Riley, D. Gramos, D. John, A. Oswald, Y. Rodrigues, K. Reynolds, and M. Abbaszadegan. 2000. Treatability Screening for CCL Microbial Contaminants. A report to EPA Office of Water. Office of Science & Technology, Washington D.C.

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Abbaszadegan, M., P.W. Stewart, M.W. LeChevallier, J.S. Rosen, and C.P. Gerba. 1998. Occurrence of Viruses in Ground Water in the United States. American Water Works Service Company, Inc. Voorhees, NJ.

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CONFERENCE PROCEEDINGS, ABSTRACTS AND PRESENTATIONS

- Forty-five national and international conference proceedings
- Thirty nine invited presentations and workshops
- Over 185 abstracts and presentations in biotechnology, Environmental Microbiology & Engineering at national and international meetings

STUDENTS AND POST DOCS ADVISED

DOCTORAL STUDENTS DIRECTED (Ph.D. Awarded)

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Current Graduate Students: Saleh Aloraini, Andrew Buell, Sunny Anand Natekar, Indrayudh Mondal

Post-Docs: Dr. Absar Alum

Former Post-Docs at ASU: Drs Hodon Ryu, Mohammad El-Zein & Farah Esmaeili