

Attelia 'Tia' Hollander

Bioanalytical Professional

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Technical Professional with more than 20 years' experience in a variety of technical laboratory operations. Easily adaptable to administrative as well as benchtop laboratory work. Detail oriented, results driven worker with a proven history as both an independent and team worker, who sets goals to meet and improve project deliverables.

SKILLS & AWARDS

- Two years CLIA Lab General Supervisor
- FSAP Authorized individual 2019-2022
- LANL 2009-2022 Derivative Classifier Chemical/Biological
- UCLA-Irvine BSL3 Biosafety Training Program 2018
- 2021 LANL SPOT Award
- 2021 DOE Secretary's COVID-19 Honor Award
- 2020 LAAP Outstanding Individual Achievement
- 2020 LANL SPOT Award
- 2019 R&D 100 gold award winner
- 2015 Achieved A2LA Laboratory Accreditation in ISO 17025 in Biological Testing
- 2015 LAAP Outstanding Team Achievement
- 2014 LANL Large Team Distinguished Performance Award
- 2010 LANL Large Team Distinguished Performance Award
- 2009 LANL SPOT Award
- 2007 LAAP Outstanding Team
- 2005 LAAP Outstanding Team
- 2003 NMSU College of Agriculture and Home Economics Dean's Award of Excellence

RESEARCH EXPERIENCE

Bioanalytical Technical Professional

May 2022-Current: Oak Ridge National Laboratory. Bioscience

Research Technologist

2005-2022: Los Alamos National Laboratory. Bioscience

- Tasked to setup the LANL SARS-CoV-2 CLIA testing program. LANL was the first in the DOE complex to successfully standup operations. Two years as the General Supervisor creating protocols and overseeing daily operations and daily RT-PCR and RNA extractions for CLIA certified COVID-19 diagnostic lab for LANL employee testing and NM state surge capacity testing.
- Federal Select Agent Program qualified worker, responsible for working safely and securely, creating, and validating protocols and insuring the Select Agent program remains in compliance with CDC guidelines and regulations.
- Algae fuel portfolio in Bioscience Division. The goal of the project is to promote sustainable and affordable Algal biofuels and reduce dependence on foreign oil.
- To achieve the goal in *Nannochloropsis salina* Performing a variety of genetic modification techniques including, CRISPR Cas knock-in, CRISPR Cas knock-out, biolistic particle delivery, electroporation, molecular characterization, and Chemical characterization testing such as GC-MS and Ion chromatography.
- In 2009 I was appointed to aid in planning and creating an operations plan for the foundation of a new project for DHS. The project entailed a multi-divisional team process for Gen3 acquisition.
- SPADA Panel acquisitions technologist, I found sources for more than 200 DNA and cultures. I was responsible for Strain characterization and cross training, I worked closely with the LIMS administrator to configure the Strain database.
- Worked on the team's procedure writing process which lead to our teams' receipt of ISO 17025 accreditation. As a result, our team had a formal training and testing process that is rigorous for tracking cradle-to-the-grave of items and tasks.
- Troubleshoot and validated new instrumentation.
- Assisted in communication with DHS, providing input for Final reports as well as co-authoring the 2018 test plan for evaluation of next generation sequencing technologies.
- Primary technologist responsible for plant genome characterization.
- Designed and collaborated with team members to determine genome size utilizing Flow Cytometry.
- Designed a variety of RT-PCR assays for gene expression analysis.
- Laboratory lead for DTRA-IBRD project, supervised students and performed analytical analysis on environmental samples to evaluate Bacillus anthracis surrogate environmental distribution and persistence.
- Working as part of a large team on a complex plant genomics project I was responsible performing a variety of Chemical laboratory techniques. As well as SNP discovery and genetic fingerprinting. I utilized a variety of techniques including GC-MS, LC-MC, antibody assays, primer design and testing. PCR optimization, melting point analysis, SNP detection, polyacrylamide gel electrophoresis, DNA sequencing, Bioinformatics analysis-sequence annotation and analysis.
- Worked to develop, test, and implement Filemaker pro sample management system.

- Responsible for programming laboratory robots and equipment maintenance.
- Providing technical support, procedure development and validation for evaluating a variety of sequencing technologies and providing ISO compatible protocols to sponsoring agency.
- Providing technical support for Generating genetically characterized panels of antibiotic-resistant biothreat agent surrogates via experimental evolution.
- Researching disease outbreaks and writing case records for the AIDO/RedAlert tools.
- NMSBA- Herbs etc. Determining acceptable microbial testing thresholds for herbal supplements. Researched and provided written recommendations.
- Assay validation testing for Yellow Fever virus, Ebola Virus, and Crimean Congo Hemorrhagic fever virus utilizing Synthetic RG4 RNA, and results summary.
- Testing a novel detection technique for antibiotic resistance detection in biothreat agents. Multiplexed Oligonucleotide PCR (MOL-PCR)

PUBLICATIONS

Fast Evaluation of Viral Emerging Risks (FEVER): A computational tool for biosurveillance, diagnostics, and mutation typing of emerging viral pathogens.
medRxiv (preprint_ may 2021

Investigation of pooling strategies using clinical COVID-19 samples for more efficient diagnostic testing.
medRxiv (preprint) August 2020

Development of a Supervised Learning Algorithm for Detection of Potential Disease Reemergence: A Proof of Concept.
Health Security 17(4):255-267

Analytics for Investigation of Disease Outbreaks (AIDO) A web-based analytic facilitation situational awareness in unfolding disease outbreaks JMIR Public Health and Surveillance.
JMIR Public Health and Surveillance 5(1) 2018

Spatial Temporal cluster analysis to enhance awareness of disease re-emergence on a global scale. Online Journal of Public Health Informatics 10(1) 2018

Analytics for Investigation of Disease Outbreaks (AIDO)
Online Journal of Public Health Informatics 10(1) 2018

Re-emerging Infectious Disease (RED) Alert tool
Online Journal of Public Health Informatics 10(1) 2018

Transport of Bacillus thuringiensis var. kurstaki from an outdoor release into buildings: Pathways of infiltration and a rapid method to identify contaminated buildings,
Biosecurity and Bioterrorism Vol 10, No 2 (2012) pp. 215-227

Persistence of Bacillus thuringiensis var. kurstaki in urban environments following spraying Applied and Environmental Microbiology Vol. 77, No.22 (2011) pp. 7954-7961

A Rapid Multiplex Assay for Nucleic Acid-Based Diagnostics
Journal of Microbiological Methods 80 (2010), pp. 155-163

Environmental Fate of Bacillus thuringiensis var. kurstaki (Btk) After Pest Eradication Efforts

CV for Attelia Hollander

Poster presentation at Bacillus ACT meeting 2009

Curtovirus Infection of Chile pepper in New Mexico

Plant Disease Vol.89 No.5 p.480-486 2005

Analysis of beet curly top virus (BCTV) in weeds in New Mexico

Phytopathology94(6): S22-S22 2004

EDUCATION

New Mexico State University Las Cruces, New Mexico

B.S BiochemistryDec 2003

B.S Agricultural Biology Dec 2003

Study abroad Karlstad University, Karlstad Sweden 2001-2002