

Erika Petro-Turnquist, Ph.D.

ASERT Fellow

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Education:

- ASERT postdoctoral Fellow, University of New Mexico School of Medicine, Albuquerque, NM 2024-Present
- PhD, Genetics, Cellular, and Molecular Biology, University of Nebraska-Lincoln, Lincoln, NE, 2024
- BS, Biology, Northern Arizona University, 2018
- BS, Chemistry, Northern Arizona University, 2018

Teaching:

Teaching Mentor: Not assigned yet

Courses Taught:

- General Chemistry I/II
- Organic Chemistry I/II
- Introductory Biology

Research:

Current Research: Using computational methods to develop novel vaccines and therapeutics targeting emerging viral diseases.

Research Mentors:

- Steven Bradfute, Ph.D., Associate Professor, Department of Internal Medicine, Associate Director, Center for Global Health

Publications:

1. **Petro-Turnquist E**, Madapong A, Steffen D, Weaver EA. Immunogenicity and Protective Efficacy of Dose-Sparing Epigraph Vaccine against H3 Swine Influenza A Virus. *Vaccines (Basel)*. 2024 Aug 22;12(8):943. doi: 10.3390/vaccines12080943.
2. **Petro-Turnquist E**, Pekarek M, Weaver EA. Swine Influenza A Virus: Challenges and Novel Vaccine Strategies. *Front. Cell. Infect. Microbiol.* 2024 March 21; 14. doi: 10.3389/fcimb.2024.1336013.
3. **Petro-Turnquist E**, Corder Kampfe B, Gaden A, Pekarek MJ, Weaver EA. Multivalent Epigraph Hemagglutinin Vaccine Protects against Influenza B Virus in Mice. *Pathogens*. 2024 Jan 23;13(2):97. doi: 10.3390/pathogens13020097.

4. **Petro-Turnquist E**, Pekarek M, Jeanjaquet N, Woolledge C, Steffen D, Vu H, Weaver EA. Adenoviral-vectored epigraph vaccine elicits robust, durable, and protective immunity against H3 influenza A virus in swine. *Front Immunol*. 2023 May 15;14. doi: 10.3389/fimmu.2023.1143451.
5. **Petro-Turnquist EM**, Bullard BL, Pekarek MJ, Weaver EA. Adenoviral-Vectored Centralized Consensus Hemagglutinin Vaccine Provides Broad Protection against H2 Influenza A Virus. *Vaccines (Basel)*. 2022 Jun 10;10(6):926. doi: 10.3390/vaccines10060926.
6. Pekarek MJ, **Petro-Turnquist EM**, Jeanjaquet NE, Hoagstrom KV, LaMontia-Hankin E, Jahnke L, Madapong A, Weaver EA. Synthetic Neuraminidase Vaccine Induces Cross-Species and Multi-Subtype Protection. *Vaccines*. 2025; 13(4):364. doi: 10.3390/vaccines13040364
7. Madapong A, **Petro-Turnquist EM**, Webby RJ, McCormick AA, Weaver EA. Immunity and Protective Efficacy of a Plant-Based Tobacco Mosaic Virus-like Nanoparticle Vaccine against Influenza a Virus in Mice. *Vaccines*. 2024 Sept 26; 12(10):1100. doi: 10.3390/vaccines12101100
8. Nguyen TN, Lai DC, Sillman S, **Petro-Turnquist E**, Weaver EA, Vu HLX. Lipid nanoparticle-encapsulated DNA vaccine confers protection against swine and human-origin H1N1 influenza viruses. *mSphere*. 2024 Aug 28;9(8):e0028324. doi: 10.1128/msphere.00283-24.
9. Pekarek MJ, **Petro-Turnquist EM**, Rubrum A, Webby RJ, Weaver EA. Expanding Mouse-Adapted Yamagata-like Influenza B Viruses in Eggs Enhances In Vivo Lethality in BALB/c Mice. *Viruses*. 2022 Jun 14;14(6):1299. doi: 10.3390/v14061299.
10. Bullard BL, DeBeauchamp J, Pekarek MJ, **Petro-Turnquist E**, Vogel P, Webby RJ, Weaver EA. An epitope-optimized human H3N2 influenza vaccine induces broadly protective immunity in mice and ferrets. *NPJ Vaccines*. 2022 Jun 23;7(1):65. doi: 10.1038/s41541-022-00492-y.
11. Rasquinha MT, Lasrado N, **Petro-Turnquist E**, Weaver E, Venkataraman T, Anderson D, Laserson U, Larman HB, Reddy J. PhIP-Seq Reveals Autoantibodies for Ubiquitously Expressed Antigens in Viral Myocarditis. *Biology (Basel)*. 2022 Jul 13;11(7):1055. doi: 10.3390/biology11071055.