Nanovax 2025: Next Generation Countermeasures for Emerging and Re-Emerging Diseases

April 2-3, 2025, The Gateway Hotel & Conference Center
Ames, Iowa

Call for Abstracts
Submission Deadline: November 4, 2024, 5 PM Central Time

The global economy and trade of ecosystem services drive how humans and animals are interlinked, often dictating their health and resilience. Large-scale agricultural systems are necessary for food and energy, but current management practices lead to respiratory and chemical toxin exposure, and concentrations of animals and people. Given the dynamic nature of global pathogenic transmissibility, strains of respiratory diseases such as influenza, that may have once been confined endemically or partially controlled by vaccination within animals and people now have the capability to swathe entire regions and continents, resulting in pandemics. SARS-CoV-2 shined a light on weaknesses within public health but proved the ingenuity of biomedical research to produce, evaluate, and authorize a vaccine in under a year. The recent emergence of avian H5N1 within the livestock industry will be the next grand challenge to understand the biology of the disease and to develop existing and novel treatments to ensure global food security and to protect human populations.

The event will bring together experts from all corners of vaccine and therapeutic research to advance promising and robust next-generation nanovaccines and nanotherapeutics through regulatory approvals and to clinical trials. The program will emphasize a transdisciplinary approach to transform the design and manufacturing of nanovaccines and nanotherapeutics that integrates nanotechnology, materials science, immunology, oncology, neuroscience, microbiology, clinical science, and social science.

The program committee also believes that innovative research is centered on early career development and training to foster the next generation of scientists. Programming will emphasize early career participation, mentorship, and high-impact research opportunities.

Abstract Information

The Nanovaccine Institute's Scientific Planning Committee (SPC) is specifically interested in abstracts that address this year’s theme on countermeasures to emerging and re-emerging disease. The committee will still consider abstracts that do not directly relate to them if they address innovative, novel ideas and emphasize translational research.

Accepted abstracts must emphasize diversity of science and members of society (institution, geography, gender, ethnicity, subject, economics).

Accepted abstracts must also include at least one of the following:

- Emphasize interdisciplinary approaches to research topics
- Timely topics that address emergent disease threats
- Timely topics that address the use of nano- and microparticles in animal and

human health
- Topics that address vaccine clinical trials
- Topics that address vaccine manufacturing, distribution, deployment, and regulation

Presentation Options

- Regular Presentation (30-minute presentation)
- Lightning Presentation (15-minute presentation)

Subject Areas

- Emerging Disease Threats
- Human Health
- Animal Health
- Vaccine Manufacturing, Distribution, Deployment & Regulation

Session Set Up

The room will be equipped with the following:

- A laptop (optional: presenters may use their own laptop)
- Projector screen
- One lectern
- Classroom seating for the audience

Presenters are responsible for printing and distribution of any handouts.

Submission Format

In addition to the text entry in Microsoft CMT with the above information, you will be asked to submit a file to further detail your introduction, materials & methods, results, conclusions & discussions in the submission portal. **Any figures or images that support your abstract can be uploaded in a .doc, .jpg, .jpeg, or .png format limited to a single one-page file.**

In this submission, please include the following:

- Introduction
- Materials and Methods
- Results
- Conclusion
- Discussion
- Images, Tables, and Figures to support your work

Communication

To receive notifications and updates, please ensure emails from hbates@iastate.edu and messages from Microsoft Conference Management Toolkit are not blocked or routed

to your inbox's Spam Folder. **Notice for submission status will occur in early December 2024.**

Please spell out all acronyms and abbreviations at least once in the submitted text.

Travel Scholarship

Early career and attendees will be eligible to receive a travel reimbursement award. Interested applicants will be asked to complete an application and submit a statement of interest to the Nanovax SPC. The recipients of up to five travel scholarships will be selected by the SPC based on the quality of the application and its relevance to nanovaccine and nanomedicine research. More information can be found here: https://nanovaccine.iastate.edu/nanovax/.

Abstract Submission

Abstracts will be submitted through Microsoft Conference Management Toolkit. No submissions will be accepted via email to organizers. Please read the below instructions for completing the submission process. Incomplete submissions or submissions sent to staff or program committee members will be eliminated from consideration.

1. Go to https://cmt3.research.microsoft.com/NANOVAX2025
2. Select “Create Account” and fill out the requested information to register
3. Once logged in, follow the prompts below to create your submission
4. Select “Create New Submission”
5. Select “NANOVAX2025 Presentations” for presentation submission
6. Enter the title and abstract
7. Select “Add” under the Authors section to add additional co-presenters**,** if any
8. Select applicable Subject Areas and Presentation Type
9. Answer additional questions
10. Upload the required supplemental figure for your presentation submission using the file upload button (**1-page maximum**). Please see below for provided figure template. File submissions greater than one-single page file will not be considered in the review process.
11. Select submit

About the Nanovaccine Institute

The Nanovaccine Institute was founded at Iowa State University, building upon core partnerships with the University of Iowa and the University of Nebraska Medical Center, and has connections with public institutions and industries across the United States through a consortium of members. Our purpose is to use nano-based technologies to tackle emergent diseases that have a devastating impact on human and animal health. Learn more at https://nanovaccine.iastate.edu/.

Event Contact: Hanna Bates, Research Administrator III, Nanovaccine Institute, hbates@iastate.edu

Abstract Title

Presenting Author Name[1], Author Name[2], Author Name[3], …
[1]Affiliation, University or Company, City, State; [2]Affliation, University or Company, City, State; [3]Affliation, University or Company, City, State; …

Introduction: Discuss the motivation and objectives of the project. Approx. 3-5 sentences. Please limit total abstract length to 1 page.

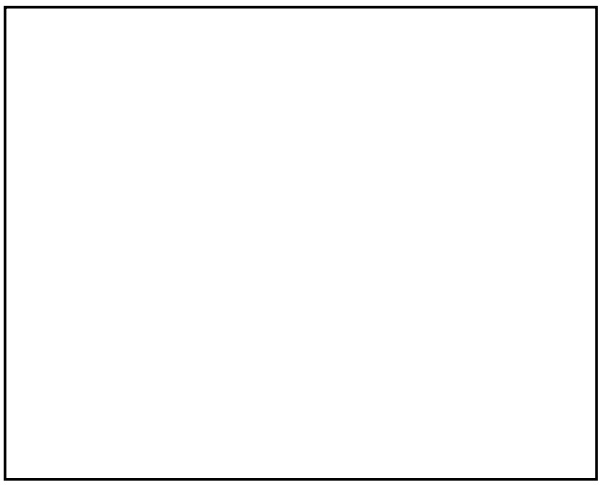

Fig. 1: Figure caption.

Methods: Briefly describe the experimental approach used. Approx. 5 sentences as needed.

Conclusions: Summarize the primary take-home message, importance, and/or perspective. Approx. 3-5 sentences.

Results: Detail the findings of the experiments completed. Please limit to one supporting figure or table. Approx. 5 sentences.

References:

1. Author et al., *Journal*, Year.
2. Author et al., *Journal,* Year.