

**NIAMRRE**

National Institute of  
**Antimicrobial Resistance**  
Research & Education

[www.niamrre.org](http://www.niamrre.org)



## THE GROWING PROBLEM

Antimicrobial resistance (AMR) happens when bacteria develop the ability to defeat the drugs designed to kill them. Antibiotic-resistance bacteria, according to the CDC, cause at least 2.8 million infections and 35,000 deaths in the United States every year. This growing public health threat has prompted action on a number of fronts.

## HISTORY

- **Sept. 2014** - The White House releases the National Strategy on Combating Antibiotic Resistant Bacteria (CARB). In response, the Association of Public and Land Grant Universities (APLU) and the American Association of Veterinary Medical Colleges (AAVMC) launches a joint Task Force on AMR in Production Agriculture.
- **Sept. 2015** - The White House establishes a federal interagency Task Force called the Presidential Advisory Council on Combating Antibiotic-Resistant Bacteria (PACCARB). Concurrently, APLU and AAVMC release a report offering an array of research and education recommendations designed to address the problem utilizing a One Health approach. The report called for the creation of a National Institute of Antimicrobial Resistance Research and Education (NIAMRRE) to coordinate the implementation of the report's recommendations.
- **April 2018** - The APLU and AAVMC request proposals to host the institute in a manner that incorporates the vision, mission, direction and principles contained in a framing concept paper.
- **July 2018** - After a national search for host institutions and evaluation of nine high quality proposals, a pre-existing regional Antimicrobial Resistance Consortium based at Iowa State University was selected to develop NIAMRRE. Key players in the early consortium included the University of Iowa, the United States Department of Agriculture National Center for Animal Health, University of Nebraska-Lincoln, the University of Nebraska Medical Center at Omaha, and Mayo Medical Clinic in Rochester, MN.
- **Jan. 2019** - NIAMRRE core staff are hired and work begins to determine first-year priorities, governance structure, and a potential membership model.

## IDENTITY

The National Institute of Antimicrobial Resistance Research and Education's mission is to drive cross-sector engagement and coordinated action to combat the global threat of Antimicrobial Resistance across humans, animals, and the environment.

Our vision is to be the trusted leader in coordinating One Health efforts that preserve the ability to prevent and treat infectious diseases for generations to come.

**These values support our mission, guide our behaviors, and influence how we make decisions: ethical, transparent, evidence-based, innovative, collaborative, action-oriented, and objective.**

## OUR STRATEGY

NIAMRRE fosters an active understanding of AMR to reduce its societal impact through research, education, collaboration, and advocacy efforts.



**RESEARCH - Advancing AMR research through the cultivation of networks and resources.** NIAMRRE works with our partners to map expertise and capacities in the AMR arena nation-wide and identify research priorities and funding opportunities. We then facilitate the creation of highly competitive research teams to build and execute successful projects to further our understanding of AMR and mitigate its effects. NIAMRRE also works with stakeholders at the state, national, and global levels to advocate for increased funding of AMR research across the One Health spectrum.



**EDUCATION- Improving knowledge and stewardship of AMR through training and outreach.** NIAMRRE works with our partners to inventory existing AMR educational and extension efforts, identify gaps, and use resource-pairing to build effective teams to address these gaps. We also work to identify best practices in the science communication of AMR to lay audiences. We then collaborate with experts to simplify complex AMR topics for general consumption and provide resources to end users.



**COLLABORATION - Convening cross-sector AMR stakeholders for the purpose of action.** NIAMRRE brings together AMR stakeholders in animal, human, and environmental health including but not limited to academia, healthcare, industry, governmental and non-governmental organizations, and the general public. We then work with our partners to provide a safe space and opportunities for fruitful discussion and collaborative, actionable progress to be made toward mitigating the effects of AMR on society.



**ADVOCACY - Raising awareness of AMR and advocating for AMR-specific funding.** NIAMRRE coordinates advocacy efforts amongst academic, industry, and commodity collaborators. Together, we identify funding priorities in the AMR space, develop and distribute materials enhancing knowledge of AMR while supporting these priorities, and work to influence appropriations toward these priorities using a One Health approach.

Above all else, we believe what sets NIAMRRE apart from other organizations with similar goals, is our focus on, and ability to convene cross-disciplinary groups together to engage in dialogue, share resources, and collectively work on addressing the AMR challenge together using a One Health approach.

**SHARED SOLUTIONS**

Antimicrobial resistance is a complex issue that requires an integrated research, education, and extension approach. To accomplish this, we draw on expertise from basic, translational, and applied scientists in veterinary medicine, agriculture, environmental health, public health, medicine, economics, and social sciences.

We value the input and involvement of all stakeholder groups and hope that you will join our mission to solve AMR challenges using a One Health approach. Cross-disciplinary participation helps to bridge resources and knowledge gaps and create sustainable progress.

<p><b>Academic</b> \$15,000/Year</p> 	<p><b>Industry</b> 15,000/Year</p> 	<p><b>Affiliate</b> Non-Paid</p> 
<ul style="list-style-type: none"> <li>• Social Sciences</li> <li>• Communications</li> <li>• Extension</li> <li>• Health</li> <li>• Professional Schools</li> <li>• Law and Policy</li> <li>• Agriculture</li> <li>• Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• Pharmaceutical</li> <li>• Producer/Commodity</li> <li>• Allied Agriculture</li> <li>• Allied Health</li> <li>• Retailers</li> </ul>	<ul style="list-style-type: none"> <li>• State Government</li> <li>• National Government</li> <li>• International Government</li> <li>• Professional Societies</li> <li>• Philanthropic Foundations</li> <li>• Consumer Advocacy Groups</li> </ul>

**BECOME A MEMBER**

NIAMRRE connects people, resources, and ideas to accelerate and synergize efforts to combat antibiotic resistance. We create meaningful, action-oriented relationships that enable a shared vision across the One Health spectrum.

We're building an essential community for experts who are passionate about working on antimicrobial resistance challenges. As a member, you'll have access to programs that support career development, networking, and meaningful impact.

The memberships benefit organizations with an interest in AMR and the individuals in those organizations. This includes individuals such as researchers, human and animal medical prescribers, extension agents, and policy makers.

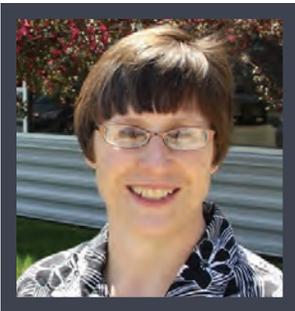
# MEET OUR TEAM



**Dr. Paul Plummer, DVM, PhD, DACVIM (LAIM), DECSRHM**

Dr. Plummer is Executive Director of NIAMRRE and an Associate Professor in Veterinary Diagnostic and Production Animal Medicine at Iowa State University. He also serves as the current Director of the Midwest AMR Consortium.

His academic role as both a board-certified food animal internal medicine and infectious disease specialist coupled with a PhD in veterinary microbiology, and his leadership of an active research laboratory, place him at the intersection of translational research focused on AMR. He also holds an appointment on the American Veterinary Medical Association's Committee on Antimicrobials, which provides an excellent interface with organized veterinary medicine policy development and education.



**Kris Johansen, PhD, MBA**

Dr. Johansen is Associate Director of External Relations of NIAMRRE. Johansen, a microbiologist with expertise in bacterial pathogenesis and molecular biology, leads NIAMRRE's external facing efforts and serves as an AMR subject matter expert.

She plays a key role in developing strong and sustained relationships with academic, professional, and industry stakeholders. She joined NIAMRRE in August 2020. She holds a PhD in microbiology from University of Missouri-Columbia and an MBA from Iowa State University.



**Melissa Miller, MS**

Miller is Associate Director of Operations of NIAMRRE. She manages day-to-day activity and development of NIAMRRE's Operations Center, including process improvement and workflow development, financial management and budget, and strategy development, implementation, and progress oversight.

She joined NIAMRRE in August 2020. She holds a bachelor's degree in community and public health and a master's degree in community development from Iowa State University.



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## MEET OUR TEAM



### **Erica Hellmich, MS**

Hellmich is NIAMRRE's Administrative Specialist, where she supports staff by planning and coordinating operational projects, events, schedules, travel arrangements, and team finances.

She joins NIAMRRE from the Veterinary Diagnostic and Production Animal Medicine Department at the Iowa State University College of Veterinary Medicine. She holds a bachelor's degree in biology and a master's degree in entomology from Iowa State University.



### **Jazzy McCroskey, MS**

McCroskey manages NIAMRRE's membership marketing, public relations activity, social media engagement, and communications in support of the institution's strategic plan.

She holds an associate's degree in visualization technology from St. Paul College, a bachelor's degree in speech communications from Graceland University, and a master's degree in strategic communication from American University.

# FREQUENTLY ASKED QUESTIONS



## HOW DO I PRONOUNCE NIAMRRE?

The National Institute of Antimicrobial Resistance Research and Education is a mouthful, so we stick with our acronym, NIAMRRE. It's pronounced: \nī-am-rē\  
"NI" sounds like "pie" - "AM" sounds like "ham" - "RRE" sounds like "see"

## WHAT IS A ONE HEALTH APPROACH?

One Health is an emerging approach in healthcare that involves veterinarians, physicians, and other scientific experts working closely together to attain optimal health for people, animals, and the environment. Using a One Health approach, NIAMRRE will foster and coordinate research and education activities aimed at mitigating the development of antimicrobial resistance.

Many challenges must be addressed, including the development of better management practices in production systems that will reduce the need for antimicrobial agents; the improvement of antibiotic resistance surveillance systems; research for new vaccines, antimicrobials, and alternatives; and, the education of both health practitioners and the general public. This work is more than any one governmental agency, university, commodity group, or industry partner can undertake. Hence, the institute will serve as a focal point in the effort to contain the problem over an extended period of time.

## WHAT IS THE FUNDING STRUCTURE OF NIAMRRE?

NIAMRRE began operations with approximately \$1.6 million in start-up funding from Iowa State University and the University of Nebraska-Lincoln. Moving forward, the Institute will pursue additional funding through federal, state, nonprofit foundations, and international channels, as well as membership from stakeholders, including the consortium universities and their component parts; food and pharmaceutical companies; commodity, industry, and professional organizations; agriculture and public health organizations; foundations; government organizations and agencies; and, independent research organizations.

## WHAT CHALLENGES WILL NIAMRRE ADDRESS?

Since their discovery, antibiotics have been an important ingredient in the treatment of human and animal disease. However, as the use of antibiotics has increased, so has the emergence of drug-resistant bacteria which has narrowed the potential effective uses of some antibiotics for either disease prevention or treatment in both humans and animals. Antimicrobial resistance is a complex issue and its causes are multi-factorial. Solving the problem is going to require concerted effort, collaboration among many scientific disciplines, national and international organizations, and resources.

## HOW DO I GET INVOLVED?

We are currently evaluating potential governance structures and membership models that have worked for similar entities. Contact us at [info@niamrre.org](mailto:info@niamrre.org) for more information! Stay tuned for updates on membership opportunities beginning Fall 2019.

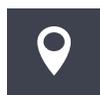


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# CONTACT US

The NIAMRRE main office is located in Ames, Iowa at the Iowa State University Research Park (ISURP). ISURP is a 400+ acre development with more than 703,000 square feet of current building space, and was founded to provide space and resources to advance science-based initiatives. The Research Park works with businesses from a variety of industries to improve economic development in Ames, across the state, and nation wide.

## ISU RESEARCH PARK



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