

AGNR

FIVE STRATEGIC INITIATIVES

One Health: Improve Human, Animal, and Environmental Health



- **Improve animal and human health by reducing disease transmission between animals and humans.**
- **Advance community health in a changing world.**
- **Reduce chronic diseases in animals and humans.**
- **Analyze environmental, agricultural, and health policy and inform decision makers.**
- **Promote and support healthy and livable communities through education of all ages.**

BACKGROUND: WHERE WE ARE NOW

One Health is a collaborative, multi-sectoral, and transdisciplinary approach working at the local, regional, national, and global levels—with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment (CDC). At The College of Agriculture and Natural Resources (AGNR), University of Maryland (UMD), we believe the One Health concept represents the inextricable linkages among human, animal, and environmental health. Therefore, in this initiative our goal is to promote and implement the One Health approach at the local, state, regional, national, and global levels. Maryland provides a unique living ecosystem for the study of human-animal-environmental interactions with an abundance of rural and urban interfaces, a diverse animal industry, an international air and seaport, and proximity to the Chesapeake Bay.

OUR AREAS OF FOCUS

Based on existing strengths across the college and the importance of the problems to the citizens of Maryland, the U.S., and beyond, the team has devised an implementation plan that focuses on three areas:

1. Disease transmission between animals, humans, and environment
2. Dual-purpose, dual-benefit animal models of chronic disease for humans
3. Healthy communities

ACCOMPLISHMENTS

In 2018, we hosted a networking event with keynote speaker Dr. Adele Turzillo, Division Director of Animal Systems, United States Department of Agriculture National Institute of Food and Agriculture (USDA-NIFA). In 2019, the team launched a Seed Grant Program to stimulate trans-disciplinary research, Extension, and teaching to address challenges affecting human, animal, and environmental health. In 2020, the team hosted the annual AGNR Cornerstone Event virtually focusing on One Health.



To learn more about this strategic initiative or to connect with an initiative team leader, please visit go.umd.edu/AGNR_Onehealth

ACTIONS FOR 2021

To encourage formation and/or strengthening of interdisciplinary teams, we will fund several proposals from our Seed Grant Competition. We will continue to foster interactions among scientists and Extension faculty to translate cutting-edge research into solutions for healthier communities. We hope to create Extension workshops to educate stakeholders on the importance and indicators of improving human, animal, and environmental health. We plan to evaluate existing courses to ensure comprehensive coverage of basic initiative concepts as well as contemporary issues, including the effects of climate change on the environment (sea level rise, drought, flooding) and integrated strategies to mitigate these effects.

1. Education and Training

Provide excellent high impact education and training programs that enable AGNR to address the complexity of One Health issues.

2. Research and Innovation

Conduct and implement integrated, applied, and multi-disciplinary research in priority areas related to One Health that make an impact in Maryland and beyond.

3. Extension and Outreach

Provide an integrated solution to One Health issues and facilitate learning opportunities to engage with the local and global communities in addressing these issues.

