

NEBRASKA FOOD FOR HEALTH CENTER

APPENDIX 12

Using Food to Improve Health

The mission of the Nebraska Food for Health Center is to improve human health by linking agriculture and food production to wellness and disease prevention through microbiome research.

The multidisciplinary Nebraska Food for Health Center brings together strengths in agriculture and medicine from throughout the University of Nebraska system. We help develop hybrid crops and foods to improve the quality of life of those affected by critical diseases including heart disease, diabetes, obesity, cancers, inflammatory bowel disease and mental disorders.



Our research focuses on microbes living in the human gut microbiome.

Trillions of microbes – bacteria, viruses, fungi and more – live in the human gut microbiome, which normally acts in concert with the body to regulate organs, develop our immune systems, fight disease and metabolize foods. Abnormalities in the gut microbiome are being discovered as factors in many diseases.



Diet is one of the biggest factors that influences humans' gut microbiomes.

Because microbiomes are fed by the same foods that we consume, we can develop foods with health-promoting ingredients that work by selectively feeding beneficial microbes or prohibiting growth of more harmful species. This new interface between agriculture and medicine holds tremendous potential to transform how we think about preventing and treating disease.

The center focuses on:

- Bringing together a research team to tie gastrointestinal and biomedical research to agriculture, plant and animal breeding and genetics. In addition to University of Nebraska-Lincoln faculty, the team includes faculty from the University of Nebraska at Omaha and the University of Nebraska Medical Center.
- Establishing a research program to develop foods with proven health benefits, particularly those that affect the human gut microbiome — the collection of all the beneficial and potentially harmful micro-organisms in the digestive system that can affect health and well-being.
- Preparing a talented workforce for careers in food health, including researchers, food and health industry leaders and food innovation entrepreneurs.

<https://foodforhealth.unl.edu/>