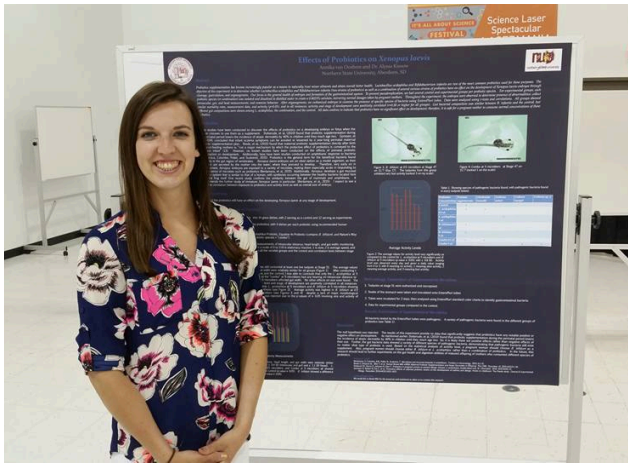
STUDENT SPOTLIGHT

Annika Van Oosbree -- *Northern State University*
Aberdeen, SD

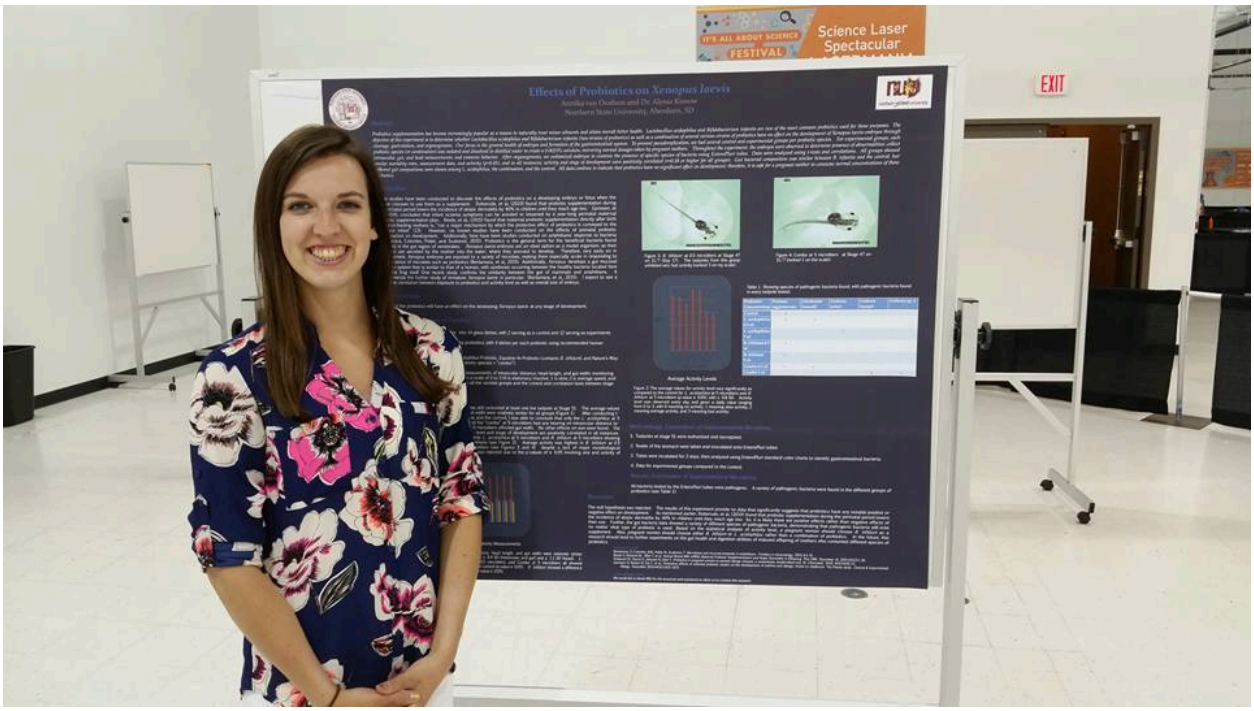


Pre-med student Annika Van Oosbree is continuing her research the on the benefits of probiotic supplementation. Probiotic supplementation has become increasingly popular as a means to naturally treat minor ailments and attain better overall health. In her research titled "Effects of Probiotics on *Xenopus laevis* Development", Van Oosbree used *Lactobacillus acidophilus* and *Bifidobacterium bifidum* (two of the most common probiotics) and a combination of various species of probiotics to determine the effect on the development of *Xenopus leavis* (African clawed frog) embryos through cleavage, gastrulation and organogenesis. Throughout the experiment, the embryos were observed to determine presence of abnormalities, collect fluid pressure inside the eye, gut and head measurements and examine behavior. The outcomes showed *B. bifium* contributed to a smaller overall embryo size and treatment should be limited or avoided. *L. acidophilus* was concluded to be the best option option as a probiotic supplement as it provided benefits such as improved gut microbiota associated with this probiotic without adversely impacting the embryo.

Van Oosbree presented her research findings during three conferences and festivals including a first place prize at both the 2016 Northern State University (NSU) Undergraduate Research Forum and the 2016 South Dakota Academy of Science Undergraduate Poster Competition. An abstract of her research was published in the South Dakota Academy of Science Journal (SDASJ), and Van Oosbree is currently working on a full article with the hope of publishing in *Journal of Probiotics and Health*.

Throughout her academics, Van Oosbree has participated in an additional research study conducted on the implications of West Nile virus, served as a Senator at Large in the NSU Student Association, currently sits as the treasurer of the NSU Pre-Medical Society and is a player on the Division II NSU volleyball team where she received the Academic All-Conference award during her sophomore year.

Van Oosbree is junior at NSU pursuing a double major in biology and english with a minor in Chemistry. In January, she will begin a new stage of her research. She will be using sea urchins to study the effects of the same probiotics on the expression of the Endo16 gene, which codes for gut development.


IT'S ALL ABOUT SCIENCE
FESTIVAL
Science Laser
Spectacular
EXIT
Effects of Probiotics on Xenopus laevis